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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

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Not to be folded or roughly handled

GOVERNMENT OF MADRAS,

BUDGET ESTIMATE

OF THE

IRRIGATION DEPARTMENT OF THE MADRAS PRESIDENCY

FOR THE YEAR

1874-75.

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BUDGET ESTIMATE OF THE PUBLIC WORKS DEPARTMENT

For 1874-75.

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part I.

Abstract of the estimated Charges for Irrigation Works in the Madras Presidency for the year from 1st April 1874 to 31st March 1875, including Ordinary and Extraordinary Expenditure.

Service Heads.	Reference to detailed Estimate.	Estimate.		Total.	
		1874-75.	1873-74.	1874-75.	1873-74.
Capital.	Page.	Rs.	Rs.	Rs.	Rs.
Extraordinary.					
Works	4 to 25	6,02,563	6,61,300		
Establishment	35	1,75,000	2,01,500		
Tools and Plant	36 & 37	30,000	57,200		
A.—*Extraordinary Total*...		...	...	8,07,563	9,20,000
Ordinary.					
Works	4 to 25	2,11,550	3,41,000		
Establishment	35	5,00,000	5,12,000		
Tools and Plant	36 & 37	25,000	23,000		
				7,36,550	8,76,000
State outlay on Guaranteed Irrigation Works	2 & 3	14,400	14,000	14,400	14,000
B.—*Ordinary Total*...		...	...	7,50,950	8,90,000
Total Capital, Extraordinary and Ordinary		...	...	15,58,513	18,10,000
Revenue.					
Works		...	...		
Repairs and Maintenance of works.	26 to 34	13,67,050	13,60,000		
Establishment		...	...		
Tools and Plant	36 & 37	30,000	...		
C.—Revenue Total...		...	...	13,97,050	13,60,000
Ordinary Agricultural Expenditure for which no Capital or Revenue Account is kept.					
Original Works	22 & 23	2,000	...		
Repairs		...	...		
Establishment		...	...		
Tools and Plant		...	...		
D.—Total...				2,000	...
E.—Total Ordinary, B + C + D ...				21,50,000	22,50,000
F.—Grand Total, Ordinary and Extraordinary, A + E ...				29,57,563	31,70,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part II.

Distribution of Extraordinary and Ordinary Grants for 1874-75 by Canals and objects of work.

Works.	Works.	Repairs.	Establishment.	Tools and Plant.	Total.	Grant 1873-74.
Capital.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Extraordinary.						
Eastern Delta Project	1,53,300	.....	.....	.....	.....	.....
Western do. do.	1,95,000	.....	.....	.....	.....	.....
Eastern do.—Pullern Channel ...	12,645	.....	.....	.....	.....	.....
Do. do.—Masulipatam Canal	30,000	.....	.....	.....	.....	.....
Do. do.—Ryves' Channel ...	30,000	.....	.....	.....	.....	.....
Western do.—Seetanagrum Canal	23,254	.....	.....	.....	.....	.....
Pennair Anicut.—Survapully Channel	22,774	.....	.....	.....	.....	.....
Palandoraj Project	20,000	.....	.....	.....	.....	.....
Streoviguntum do.	1,09,590	.....	.....	.....	.....	.....
A.—Total...	6,02,563	.....	1,75,000	30,000	8,07,563	9,20,000
Ordinary.						
Budam Project	6,000	.....	.....	.....	.....	.....
Peddakuncherla Tank	2,000	.....	.....	.....	.....	.....
Madras Water Supply Project	30,000	.....	.....	.....	.....	.....
Chembrumbaukam Tank do.	50,000	.....	.....	.....	.....	.....
Seesamangalam Tank... ...	8,000	.....	.....	.....	.....	.....
Murdur Anicut	6,000	.....	.....	.....	.....	.....
Cannadien Channel	6,000	.....	.....	.....	.....	.....
State Outlay on Guaranteed Irrigation Works.	14,400	.....	.....	.....	.....	.....
Minor New Works (at the disposal of District Engineers)	73,550	.....	.....	.....	.....	.....
Do. (do. of Government)...	30,000	.....	.....	.....	.....	.....
B.—Total...	2,25,950	.....	5,00,000	25,000	7,50,950	8,90,000
Total Capital A + B...	8,28,513	... ...	6,75,000	55,000	15,58,513	18,10,000
Revenue.						
Repairs and Maintenance of Works ...	.....	13,67,050	.....	30,000	13,97,050	13,60,000
C.—Total...	.....	13,67,050	... ...	30,000	13,97,050	13,60,000
Ordinary Expenditure for which no Capital or Revenue Account is kept.						
Experiments on concrete	2,000	.....	.....	.....	2,000	.....
D.—Total...	2,000	.....	... ...	.....	2,000	.....
E.—Total Ordinary, B + C + D...	2,27,950	13,67,050	5,00,000	55,000	21,50,000	22,50,000
Total Ordinary and Extraordinary, A + E.	8,30,513	13,67,050	6,75,000	85,000	29,57,563	31,70,000

Abstracts of Charges to be incurred from Imperial and Local Funds as detailed within.

	Original Works.	Repairs.	Establishment.	Tools and Plant.	Total.	Grand, 1873-74.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial Funds—In India	8,30,513	13,67,050	6,75,000	85,000	29,57,563	31,70,000
In England	.....	.....	.....			
Total as above	8,30,513	13,67,050	6,75,000	85,000	29,57,563	31,70,000
Local Funds—In India	.....	.....	.....	.....	.....	.....
Contributions—In India	.....	.....	.....	.....	.....	.....
Grand Total...	8,30,513	13,67,050	6,75,000	85,000	29,57,563	31,70,000

GOVERNMENT

BUDGET-ESTIMATE OF THE IRRIGA

Part

Detail of Estimate for Original

Executive Division.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
		Outlay chargeable to Capital Account.						
Ganjam	1	Minor New Works	RS. ...	RS. ...	RS. ...	RS. 1,000	1	
Vizagapatam	2	Do. do.	...	...	...	500	2	
		A.—EASTERN DELTA PROJECT.						
Godavery	3	Extension of Irrigation in the Eastern Delta.						
		B.—COST OF LAND.						
		Tooliabaga Drain	12,866	...	3,000	...		
		Bickavolo do.	6,300	...	2,500	...		
		C.—MASONRY WORKS.						
		1. *Main Canal and Branches.*						
		Samulcottah Canal.—Escape Bheemaveram Aqueduct ...	4,200	3,649	...	...		
		Injeram do. Raising crest of Ventoor Calingulah...	400	2,608	...	...		
		2. *Distributing Channels.*						
		Cocanada Canal	21,000	10,259	5,000	...		
		Coringa do.	18,000	1,387	3,000	...		
		Mundapetta do.	9,000	2,036	2,000	...		
		Injeram do.	9,000	...	1,500	...		Sanctioned by the Government of India, Register No. 21 I., of 1871-72. G.O., No. 1,523, of 1871. Item No. 3 of Budget of 1873-74.
		Samulcottah do.	5,955	...	3,500	...		
		3. *Drainage Works.*						
		Tooliabaga Drain.—Weir at head of	5,580	4,862	...	...		
		Takee do. Do.	3,700	...	3,700	...		
		Bickavolo do. Drop No. 1	2,220	1,674	...	...		
		Do. do. Do. „ 2	2,050	1,545	...	...		
		6. *Navigation Works.*						
		Cocanada Canal.— Lock at Madapaud	28,050	25,387	500	...		
		Do. weir do.	7,360	6,934				
		Do. at Thoscepudi	23,820	27,740	500	...		
		Do weir do.	5,060	4,738				
		Do. at Chintapilly	26,160	23,639	500	...		
		Do. weir do.	3,070	2,594				
		Do. at Covoor	26,160	25,410	500	...		
		Mundapett Canal.— Lock at Thapaswaram	22,370	21,818	1,000	...		
		Do. weir do.	3,070	2,929	300	...		
		Do. at Pasalapudy	21,960	...	10,000	...		
		Do. weir do.	3,000	...	3,000	...		
		Injeram Canal.—Tidal weir...	3,800	2,812	...	...		
		Bank Canal.— Lock at Moolastanam	17,904	...	...	...		
		Do. at Kolla	20,920	...	...	...		
		Do. at Cowlaisweram	19,090	...	...	...		
		Carried over...	...	...	40,500	1,500		

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OF MADRAS.

TION DEPARTMENT FOR 1874-75.

III.

Works, Irrigation, for the year 1874-75.

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GOVERNMENT OF MADRAS.

BUDGET-ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part III.—(Continued.)

Detail of Estimate for Original Works, Irrigation, for the year 1874-75.

Executive Division.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
			RS.	RS.	RS.	RS.		
		Brought over...			40,500	1,500		
		A.—EASTERN DELTA PROJECT.—(Concluded.)						
		7. Buildings.						
Godavery		Rest-house on Cocanada Canal	2,500	2,381	...	...		
		Rest-house at Dowlaishweram	3,000	3,008	...	...		
		Rest-house on Coringa Canal	2,500	500	2,000	...		
		Bank do.	2,500	...	2,500	...		
		D.—EARTHWORKS.						
		1. Main Canal and Branches.						
		Improving Main Duct	28,060	6,000	21,300	...		
		Improving Cocanada Canal	38,120	37,842	...	...		
		Improving Mundapetta do.	12,700	15,665	...	...		
		Improving Samulcottah do.	84,200	97,935	...	...		Sanctioned by the Government of India, Register No. 21 I., of 1871-72. G. O., No. 1,523, 1871. Item No. 3 of Budget of 1873-74.
		2. Distributing Channels.						
		Minor Channels on Samulcottah Canal	15,200	15,000	...	...		
		Minor Channels on Cocanada do.	8,000	6,877	1,100	...		
		Minor Channels on Coringa do.	8,000	1,000	4,900	...		
		Minor Channels on Mundapetta do.	2,000	1,000	1,000	...		
		3. Drainage Works.						
		Improving Takee Main Drain	2,62,600	...	49,000	...		
		Improving Tooliabaga do.	1,[illegible]1,710	65,188	20,000	...		
		Improving Bickavole do.	60,720	27,310	17,000	...		
		Total A.—EASTERN DELTA, GODAVERY...	10,80,800	4,51,727	1,59,300	...	3	
		B.—WESTERN DELTA PROJECT.						
		Extension of Irrigation in the Western Delta.						
		B.—COST OF LAND.						
Do.	4	Nursapore Canal	3,760	1,646	...	...		Sanctioned by the Government of India, Register No. 49 I., of 1871-72. G. O., No. 2,925 of 1871. Item No. 2 of Budget of 1873-74.
		Palcole Lock						
		Attili Canal.—Gummampad	4,500	1,874	...	...		
		Attili Canal.—For Canal						
		Attili Canal.—Rest-house at Paravati	...	682	...	...		
		Drain west of Narsapore Canal	...	40	...	...		
		Do. from 9½ miles mid-level channel	5,750	4,000	...	...		
		Gostanadi and Velpur Canals ...	...	...	1,59,300	1,500		
		Carried over...						

GOVERNMENT OF MADRAS.

BUDGET-ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part III.—(Continued.)

Detail of Estimate for Original Works, Irrigation, for the year 1874-75.

Executive Division.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
			Rs.	Rs.	Rs.	Rs.		
Godavery		*Brought over...*	...	...	1,59,300	1,500		
		B.—WESTERN DELTA PROJECT.—(Continued.)						
		C.—MASONRY WORKS.						
		1. *Main Canal and Branches.*						
		Aqueduct on Chinnacapuram Channel	18,240	17,716	...	...		
		Venkiah Canal.—Chilakalampad Escape	1,500	1,565	...	...		
		Ellore do. Escape weir at Nundamoor	14,000	11,948	...	...		
		Nursapore do. Do. at Mogultoor	2,380	....	2,380	...		
		Bank do. Do. on 2nd mile.	4,310	...	4,300	...		
		Gustanuddy. Do. on 14th do.	6,230	...	6,230	...		
		Attili Canal.—Surplus weir at 10¼ do.	2,550	...	2,500	...		
		Undi do. Do. at 7½ do.	4,910	...	4,900	...		
		2. *Distributing Channels.*						
		Mid-level channel, head sluice ...	1,480	1,480	...	...		
		Bridges to mid-level channel, head sluice	...	*1,314	...	...	...	
		Do. drops at different miles...	4,380	3,699	1,050	...		
		Do. under-tunnel at 7th mile.	4,330	4,314	...	...		
		Do. channel distribution ...	5,040	1,758	...	...		
		Do. escape and regulating bridge at 9½ miles ...	2,810	3,286	...	...		
		Do. do. at 11¼ miles.	3,600	2,684	...	...		
		Do. do. at 12⅜ do.	1,530	123	...	...		
		Do. channel, bridges at different miles	7,780	7,765	...	...		Sanctioned by the Government of India, Register No. 49 I., of 1871-72. G. O., No. 2,925 of 1871. Item No. 2 of Budget of 1873-74.
		Low-level channel, head sluice ...	1,140	888	...	...		
		Bridges to do. do. do.	...	1,066	...	...		
		Do. channel, bridge and drop at Muddapuram ...	1,430	1,001	...	...		
		Do. drops at different miles...	2,070	2,561	...	...		
		Do. escape and regulating bridge at 2½ miles ...	1,000	1,040	...	...		
		Do. channel distribution ...	2,520	2,232	...	...		
		Do. do. Deeva road bridge.	1,100	1,352	...	...		
		Sluice to Chinanindracole Channel on drainage diversion.	1,220	839	400	...		
		Head Sluices to Lutchmasweram Channel	200	211	...	...		
		Nursapore Canal.—Distribution	2,575	2,826	...	...		
		Ellore do. Do.	12,590	4,033	5,000	...		
		Attili do. Do.	3,520	1,176	2,000	...		
		Drainage tunnel under Duva Channel	750	821	...	...		
		Do. do. under Madugupolarum and Royakuduru ...	1,500	1,403	...	...		
		Attili Canal.—Dividing dam, 16th mile	1,670	...	1,670	...		
		Do. Do. 15¾ do.	...	...	2,130	...		
		3. *Drainage Works.*						
		Drain from 9½ miles, Mid-level channels, 3 drops	2,650	2,316	...	...		
		Drainage diversion from Bathampudi, drops	1,550	1,761	150	...		
		Carried over...	...	...	32,710 / 1,59,300	1,500		

* These channels were from the Ellore Canal when first designed, but they now take off from Junction Canal.

GOVERNMENT OF MADRAS.

BUDGET-ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part III.—(Continued.)

Detail of Estimate for Original Works, Irrigation, for the year 1874-75.

Executive Division.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
			RS.	RS.	RS.	RS.		
		Brought over...			{1,59,300			
		B.—WESTERN DELTA PROJECT.—(Continued.)	...	...	{ 32,710	1,500		
Godavery		Drainage diversion from Bathampudi, Bar at 5¼ miles ...	380	223	...	...		
		Drain west of Nursapore.—Bridge at 3 miles	2,370	2,370	...	...		
		Do at 4½ miles	1,305	1,356	...	...		
		Pundicodu Drain.—Bridge near Chilakalumpad	6,640	5,586	...	...		
		6. *Navigation Works.*						
		Nursapore Canal.—Lock-weir at Paravati	5,070	4,942	...	...		
		Do. at Itempudi	4,370	...	4,370	...		
		Do. at Palcole	4,670	...	4,670	...		
		Do. at Gostanady	21,390	19,415	...	...		
		Lock at Parawly	21,640	21,812	...	...		
		Do. at Itempudy	24,160	23,128	...	...		
		Do. at Cavitum	29,390	15,645	14,000	...		
		Do. at Mogultoor	4,090	3,995	...	...		
		Attili Canal.—Lock-weir at Godicherla	1,580	1,534	350	...		
		Do. at Gummumpaud	14,730	13,496	...	...		
		Do. at Godicherla	15,770	6,000	9,000	...		
		Do. at Gummumpad, 13½ miles ...	17,780	8,906	7,000	...		
		Gostanady Canal.—Head Lock	15,000	...	5,000	...		
		Do. at Penumentra	17,720	...	5,000	...		Sanctioned by the Government of India, Register No. 49 I., of 1871-72. G. O, No. 2,925 of 1871. Item No. 2 of Budget of 1873-74.
		Bank Canal.—Lock at Seddantam...	16,570	...	5,000	...		
		Do. at Kodeir	41,000	42,063	...	...		
		Junction Canal.—Double Lock at Muddapuram	14,510	6,234	8,000	...		
		Undi do. Head Lock						
		8. *Buildings.*						
		Rest-house at Chettipett	2,900	2,913	...	...		
		Rest-house at Peruvelly	2,900	2,882	...	...		
		Rest-house at Tadapilligudam	2,900	2,857	...	...		
		Two Rest-houses	5,800	...	5,400	...		
		D.—EARTHWORKS.						
		1. *Main Canal and Branches.*						
		Main Canal	49,000	2,125	5,000	...		
		Bank do.	20,000	...	10,000	...		
		Nursapore Canal extending to Mogultoor	18,500	19,005	...	...		
		Gostanady and Velpur Canals	64,000	10,075	15,000	...		
		Attili Canal	23,610	13,320	8,000	...		
		Undi do.	26,600	17,381	9,000	...		
		Ellore do.	31,580	5,161	18,000	...		
		2. *Distributing Channels.*						
		Mid-level channel	20,280	21,402	500	...		
		Low do.	6,150	5,329	...	...		
		Six Metalled crossing on mid-level channel...	960	505	400	...		
		Carried over...	...	...	{1,66,400 {1,59,300	1,500		

GOVERNMENT OF MADRAS.

BUDGET-ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part III.—(Continued.)

Detail of Estimate for Original Works, Irrigation, for the year 1874-75.

Executive Division.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
			Rs.	Rs.	Rs.	Rs.		
		Brought over...	...	...	1,59,300 32,710	1,500		
		B.—WESTERN DELTA PROJECT.—(Continued.)						
Godavery		Drainage diversion from Bathampudi, Bar at 5¼ miles ...	380	223	...	...		
		Drain west of Nursapore.—Bridge at 3 miles	2,370	2,370	...	...		
		Do at 4½ miles	1,305	1,356	...	...		
		Pundicodu Drain.—Bridge near Chilakalumpad	6,640	5,586	...	...		
		6. *Navigation Works.*						
		Nursapore Canal.—Lock-weir at Paravati	5,070	4,942	...	...		
		Do. at Itempudi	4,370	...	4,370	...		
		Do. at Palcole	4,670	...	4,670	...		
		Do. at Gostanady	21,390	19,415	...	...		
		Lock at Parawly	21,640	21,812	...	...		
		Do. at Itempudy	24,160	23,128	...	...		
		Do. at Cavitum	29,390	15,645	14,000	...		
		Do. at Mogultoor	4,090	3,995	...	...		
		Attili Canal.—Lock-weir at Godicherla	1,580	1,534	350	...		
		Do. at Gummumpaud	14,730	13,496	...	...		
		Do. at Godicherla	15,770	6,000	9,000	...		
		Do. at Gummumpad, 13½ miles ...	17,780	8,906	7,000	...		
		Gostanady Canal.—Head Lock	15,000	...	5,000	...		
		Do. at Penumentra	17,720	...	5,000	...		Sanctioned by the Government of India, Register No. 49 I., of 1871-72. G. O, No. 2,925 of 1871. Item No. 2 of Budget of 1873-74.
		Bank Canal.—Lock at Seddantam...	16,570	...	5,000	...		
		Do. at Kodeir	41,000	42,063	...	...		
		Junction Canal.—Double Lock at Mudlapuram	14,510	6,234	8,000	...		
		Undi do. Head Lock						
		8. *Buildings.*						
		Rest-house at Chettipett	2,900	2,913	...	...		
		Rest-house at Peruvelly	2,900	2,882	...	...		
		Rest-house at Tadapilligudam	2,900	2,857	...	...		
		Two Rest-houses	5,800	...	5,400	...		
		D.—EARTHWORKS.						
		1. *Main Canal and Branches.*						
		Main Canal	49,000	2,125	5,000	...		
		Bank do.	20,000	...	10,000	...		
		Nursapore Canal extending to Mogultoor	18,500	19,005	...	...		
		Gostanady and Velpur Canals	64,000	10,075	15,000	...		
		Attili Canal	23,610	13,320	8,000	...		
		Undi do.	26,600	17,381	9,000	...		
		Ellore do.	31,580	5,161	18,000	...		
		2. *Distributing Channels.*						
		Mid-level channel	20,280	21,402	500	...		
		Low do.	6,150	5,329	...	...		
		Six Metalled crossing on mid-level channel...	960	505	400	...		
		Carried over...	...	...	1,66,400 1,59,300	1,500		

GOVERNMENT

Budget-Estimate of the Irriga

Part III.—

Detail of Estimate for Original

Executive Division.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
			Rs.	Rs.	Rs.	Rs.		
		Brought over...			{1,59,300 / 1,66,400	1,500		
Godavery		B.—WESTERN DELTA PROJECT.—(Concluded.)						
		Seven metalled crossing on low level channel	1,120	400	600	...		
		Nursapore Canal.—Distribution	4,993	3,414	...	...		
		Ellore do. Do.	7,560	1,899	5,000	...		
		Attili do. Do.	6,270	1,003	5,000	...		
		3. *Drainage Works.*						
		Yanamadurru Drain	20,130	8,895	5,000	...		
		Bondada and Rudroyacodu Drains	11,550	4,738	5,000	...		
		Minor drainages	4,840	854	4,000	...		
		Drain west of Nursapore Canal	14,300	12,532	1,000	...		Sanctioned by the Government of India, Register No. 49 I., of 1871-72. G. O., No. 2,925 of 1871 Item No. 2 of Budget of 1873-74.
		Caza Drain	5,760	2,276	3,000	...		
		Perrimala and Pandicodoo Drains	34,600	30,679	...	...		
		Drain from 9½ miles, mid-level channel	18,530	12,177	...	...		
		Buggaswaram Drain	6,050	5,797	...	...		
		Drainage diversion from No. 1 Badrumpudy under-tunnel...	16,375	15,013	...	...		
		5. *Navigation Works.*						
		Junction Canal.—Restoring Navigation with Wyaroo ...	25,120	19,603	...	...		
		F.—Miscellaneous	...	4,108	...	...		
		Total B.—Extension of Irrigation in the Western Delta, Godavery... ...	13,04,610	4,94,618	1,95,000	...	4	
Do.	5	Minor New Works	...	...	...	5,000	5	
Kistna	6	C.—PULLERU CHANNEL. (Eastern Delta.)						
		Enlargement, extension, and improvement of the Channels in the Masulipatam Section of the Kistna Delta.						
		B.—Cost of Land.						
		1. Main Canal and branches	5,000	...	...	...		Sanctioned by the Government of India, Register No. 7 A. I of 1868-69. G. O., Nos. 3,215 of 1868, 80 of 1870, and 2,308 of 1872. Item No. 6 of Budget of 1873-74.
		2. Drainage Channels						
		Total Land...	5,000	...	...	...		
		C.—Masonry Works.						
		1. Main Canal and branches	14,600	...	1,000	...		
		2. Roads and Bridges	4,170	...	...	...		
		Total Masonry Works...	18,770	...	1,000	...		
		Carried over...	...	...	{1,000 / 3,54,300	6,500		

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OF MADRAS.

tion Department for 1874-75.

(Continued.)

Works, Irrigation, for the year 1874-75.

GOVERNMENT

BUDGET-ESTIMATE OF THE IRRIGA

Part III.—

Detail of Estimate for Original

Executive Division.	No.	Detail of Work and Locality.
		Brought over...
		PULLERU CHANNEL, (EASTERN DELTA).—(Concluded.)
		D.—EARTHWORKS.
Kistna		1. Main Canal and branches ... ... }
		2. Distributing Channels ... ... }
		Total EARTHWORKS...
		F.—MISCELLANEOUS ... ...
		Total C.—PULLERU CHANNEL...
		D.—MASULIPATAM CANAL, (EASTERN DELTA.)
Do.		Widening the head of the Masulipatam Canal for 1,000 yards from the Anicut to the head of the Ellore Branch.
		B.—COST OF LAND.
		1. Main Canal and branches ... ...
		C.—MASONRY WORKS.
		1. Main Canal and branches ... ...
		2. Roads and Bridges ... ...
		Total MASONRY WORKS...
		D.—EARTHWORKS.
		1. Main Canal and branches ... ...
		F.—MISCELLANEOUS ... ...
		Total D.—MASULIPATAM CANAL...
		E.—RYVES' CHANNEL, (EASTERN DELTA.)
Do.	8	Enlargement and improvement of Ryves' Channel and its branches and construction of the necessary masonry works.
		B.—COST OF LAND.
		1. Main Canal and branches ... ...
		Carried over...

OF MADRAS.

TION DEPARTMENT FOR 1874-75.

(Continued.)

Works, Irrigation, for the year 1874-75.

Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
RS.	RS.	RS.	RS.		
...	...	3,54,300 1,000	6,500		
1,58,120	...	11,645	...		Sanctioned by the Government of India, Register No. 7 A. I. of 1868-69. G. O., Nos. 3,215 of 1868, 80 of 1870 and 2,308 of 1872. Item No. 6 of Budget of 1873-74.
1,58,120	...	11,645	...		
6,100	...	...	...		
1,87,990	1,75,345	12,645	...	6	
4,500	...	...	...		
62,909	...	10,000	...		Sanctioned by the Government of India, Register No. 10 I. of 1871-72. G. O., No. 1,389 of 1871. Item No. 7 of Budget of 1873-74.
3,160	...	1,000	...		
66,069	...	11,000	...		
44,076	...	17,000	...		
3,385	...	2,000	...		
1,13,530	77,942	30,000	...	7	
3,000	...	...	...		Sanctioned by the Government of India, Register No. 7 A. I. of 1868-69. G. O., Nos. 3,215 of 1868 and 80 of 1870. Item No. 9 of Budget of 1873-74.
...	...	3,96,945	6,500		

GOVERNMENT

BUDGET-ESTIMATE OF THE IRRIGA

Part III.—

Detail of Estimate for Original

Executive Division.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
			Rs.	Rs.	Rs.	Rs.		
		Brought over...	...	...	3,96,945	6,500		
		E.—RYVES' CHANNEL, (EASTERN DELTA.)— (Concluded.)						
		C.—MASONRY WORKS.						
Kistna	...	1. Main Canal and branches	13,000	...	3,000	...		
		2. Distributing Channels	7,930	...	...	...		
		3. Roads and Bridges	19,303	...	...	...		
		Total MASONRY WORKS...	40,233	...	3,000	...		
		D.—EARTHWORKS.						
		1. Main Canal and branches	3,35,060	...	27,000	...		Sanctioned by the Government of India, Register No. 7 A. I. of 1868-69. G. O., Nos. 3,215 of 1868. and 80 of 1870. Item No. 9 of Budget of 1873-74.
		2. Distributing Channels	29,800	...	...	...		
		Total EARTHWORKS...	3,64,860	...	27,000	...		
		F.—MISCELLANEOUS.	6,100	...	...	...		
		Total E.—RYVES' CHANNEL...	4,14,193	2,48,060	30,000	...	8	
		F.—SEETANAGARAM CANAL, (WESTERN DELTA.)						
Do.	9	Sloping down the banks of the Main Canal from the southern flank of the anicut, and enlarging the head of the Main Canal from Seetanagaram to Dugeralla.	50,483	...	...	...		Sanctioned by the Government of India, Register No. 7 A. I. of 1868-69. G. O., No. 3,215 of 1868. Item No. 8 of Budget of 1873-74.
		C.—MASONRY WORKS.						
		1. Main Canal and branches	2,16,917	...	23,254	...		
		D.—EARTHWORKS.						
		1. Main Canal and branches	2,76,400	2,53,146	23,254	...	9	
		Total F.—SEETANAGARAM CANAL...						
		G.—BUDAM PROJECT.						
Do.	10	Channel with subsidiary works for the better supply of Budam and Alloor lands	46,420	40,420	...	6,000	10	G. O., No. 2,598 of 1870. Item No. 20 of Budget of 1873-74.
		Carried over...	...	...	4,50,199	12,500		

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OF MADRAS.

TION DEPARTMENT FOR 1874-75.

(Continued.)

Works, Irrigation, for the year 1874-75.

GOVERNMENT
BUDGET-ESTIMATE OF THE IRRIGA

Part III.—

Detail of Estimate for Original

Executive Division.	No.	Detail of Work and Locality.
		Brought over...
		II.—PEDDAKUNCHERLA TANK.
Kistna	11	Restoration of the Peddakuncherla Tank ... ...
	12	Minor New Works ... ...
		I.—PENNAIR ANICUT.
Nellore	13	Improvements to the Survapully Channel.
		B.—COST OF LAND.
		1. Main Canal and branches ... ...
		C.—MASONRY WORKS.
		1. Main Canal and branches ... ...
		2. Distributing Channels ... ...
		3. Supply of Tanks ... ...
		4. Roads and Bridges ... ...
		Total MASONRY WORKS...
		D.—EARTHWORKS.
		1. Main Canal and branches ... ...
		2. Distributing Channels ... ...
		3. Drainage ... ...
		4. Supply of Tanks ... ...
		Total EARTHWORKS...
		F.—MISCELLANEOUS.
		1. Contingencies ... ...
		Total I.—PENNAIR ANICUT...
		Carried over...

OF MADRAS.
TION DEPARTMENT FOR 1874-75.

(Continued.)

Works, Irrigation, for the year 1874-75.

Amount of Estimate.	Computed expenditure up to 31st March 1874.	ESTIMATE, 1874-75. Extra-ordinary.	ESTIMATE, 1874-75. Ordinary.	No.	Remarks or References.
RS. ...	RS. ...	RS. 4,50,199 ...	RS. 12,500		
23,730	21,050	...	2,000	11	G. O., No. 3,008 of 1870. Item No. 25 of Budget of 1873-74.
...	...	...	5,000	12	
20,631	20,631	...	...		
27,659	...	...	...		Sanctioned by the Government of India, Register No. 7 A. I. of 1868-69. G. O., Nos. 3,215 of 1868, 12 and 972 of 1869. Item No. 10 of Budget of 1873-74.
40,540	...	...	...		
5,170	...	...	...		
27,785	...	...	...		
1,01,154	99,812	...	...		
1,78,996	...	13,000	...		
13,805	...	800	...		
8,900	...	...	...		
96,574	...	7,974	...		
2,98,275	2,69,335	21,774	...		
...	7,508	1,000	...		
4,20,060	3,97,286	22,774	...	13	
...	...	4,72,973	19,500		

GOVERNMENT

BUDGET-ESTIMATE OF THE IRRIGA

Part III—

Detail of Estimate for Original

Executive Division.	No.	Detail of Work and Locality.
		Brought over...
Nellore	14	Minor New Works ... ...
Cuddapah	15	Do. ... ...
Kurnool	16	Do. ... ...
Bellary	17	Do. ... ...
Chingleput	18	J.—MADRAS WATER SUPPLY PROJECT. ... ...
Do.	19	K.—CHEMBRUMBAUKUM TANK PROJECT. ...
Do.	20	Minor New Works ... ...
		L.—SEESAMANGALAM TANK.
North Arcot	21	Improving the supply channel to Seesamangalam Tank in the Arnee Jaghire ... ...
Do.	22	Minor New Works ... ...
		M.—PALANDORAI PROJECT.
South Arcot	23	Palandorai Anicut across the Vellaur river ... ...
Do.	24	Minor New Works
Salem	25	Do. ... ...
Tanjore	26	Do. ... ...
Trichinopoly	27	Do. ... ...
Coimbatore	28	Do. ... ...
Malabar	29	Do. ... ...
Madura	30	Do. ... ...
Tinnevelly	31	N.—STREEVIGUNTUM ANICUT PROJECT.
		A.—ANICUT... ... ...
		Groynes ... ...
		Raising ... ...
		Bridge ... ...

Carried over

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OF MADRAS.

TION DEPARTMENT FOR 1874-75.

(Continued.)

Works, Irrigation, for the year 1874-75.

Amount of Estimate.	Computed expenditure up to 31st March 1874.	Estimate, 1874-75. Extra-ordinary.	Estimate, 1874-75. Ordinary.	No.	Remarks or References.
RS.	RS.	RS.	RS.		
...	...	4,72,973	19,500		
...	...	...	5,000	14	
...	...	...	4,000	15	
...	...	...	2,000	16	
...	...	...	4,000	17	
12,52,768	11,90,386	...	30,000	18	Original Estimate for Rupees 6,11,759, sanctioned by the Government of India, Register No. 7 A. I. of 1868-69. G. O., No. 3,215 of 1868. Revised Estimate for Rupees 12,25,558 submitted to the Government of India—*vide* also G. O., No. 240, dated 25th January 1872. Item No. 22 of Budget of 1873-74.
4,85,000	4,17,834	...	50,000	19	Sanctioned by the Government of India, Register No. 30 I of 1873-74. G. O., No. 1,831 of 1873. Item No. 26 of Budget of 1873-74.
...	...	...	6,050	20	
17,900	9,900	...	8,000	21	Revised estimate awaited.
...	...	...	6,000	22	
2,00,555	1,80,555	20,000	...	23	Sanctioned by the Government of India, Register No. 21 E. of 1869-70. G. Os., Nos. 691 of 1870 and 171 of 1872. Item No. 12 of Budget of 1873-74.
...	...	...	6,000	24	
...	...	...	2,000	25	
...	...	...	10,000	26	
...	...	...	8,000	27	
...	...	...	2,500	28	
...	...	...	500	29	
...	...	...	3,000	30	
1,71,000	1,68,000	3,000	...		Sanctioned by the Government of India, Register No. 171. of 1868-69. G. O., Nos. 844 of 1869 and 1,520 of 1872. Item No. 17 of Budget of 1873-74. Revised estimate awaited.
1,540	1,540	...	...		
*4,100	...	4,100	...		The items marked thus * have not yet been sanctioned, and will be included in the revised estimate shortly to be submitted.
*3,550	...	3,550	...		
1,80,190	1,69,540	10,650	...		
...	...	10,650 4,92,973	1,61,550		

GOVERNMENT

BUDGET-ESTIMATE OF THE IRRIGA

Part III.—

Detail of Estimate for Original

Executive Division.	No.	Detail of Work and Locality.
		Brought over...
Tinnevelly	...	N.—STREEVIGUNTUM ANICUT PROJECT.—(Concld.)
		B.—COST OF LAND ... ...
		C.—MASONRY WORKS.
		North side of River.
		1. Main Canal and branches ... ...
		South side of River.
		1. Main Canal and branches ... ...
		2. Distributing Channels ... ...
		D.—EARTHWORKS.
		North side of River.
		1. Main Canal and branches ... ...
		2. Distributing Channels ... ...
		South side of River.
		1. Main Canal and branches ... ...
		2. Distributing Channels ... ...
		F.—MISCELLANEOUS.
		1. Bungalows ... ...
		2. Damage by floods ... ...
		Total N.—STREEVIGUNTUM ANICUT PROJECT...
		O.—MURDUR ANICUT.
Do.	32	Head sluice for the west channel from the Murdur Anicut.
		P.—CANNADIEN CHANNEL.
Do.	33	Head sluice for the Cannadian Channel
Do.	34	Minor New Works ... ...
	35	Minor New Works grant at the disposal of Government for incomplete and other works ... ...
		ORDINARY AGRICULTURAL EXPENDITURE FOR WHICH NO CAPITAL OR REVENUE ACCOUNT IS KEPT.
Godavery District	36	Q.—Making certain experiments on concrete ... ...
		Grand Total...

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OF MADRAS.

TION DEPARTMENT FOR 1874-75.

(Concluded.)

Works, Irrigation, for the year 1874-75.

Amount of Estimate.	Computed expenditure up to 31st March 1874.	ESTIMATE, 1874-75. Extra-ordinary.	ESTIMATE, 1874-75. Ordinary.	No.	Remarks or References.
RS.	RS.	RS.	RS.		
...	...	4,92,973 10,650	1,61,550		
40,000	36,000	4,000	...		
1,00,138 *6,180	1,00,938 2,500	700 2,180	... ...		
54,928 *6,790 18,600	54,928 3,170 16,600	170 3,450 2,000	... ...		Sanctioned by the Government of India, Register No. 17 I. of 1868-69. G. O., Nos. 844 of 1869 and 1,520 of 1872. Item No. 17 of Budget of 1873-74. Revised estimate awaited.
1,72,521 *83,440 14,112	1,72,521 3,100 14,112	80,340 ...	... ...		The items marked thus * have not yet been sanctioned, and will be included in the revised estimate shortly to be submitted.
1,42,667 *1,100 25,560	1,42,667 ... 20,560	... 1,100 5,000	... ...		
7,588 5,000	7,588 5,000	... ...	... ...		
8,31,600	7,49,224	1,09,590	...	31	
10,000	...	...	6,000	32	G. O., No. 37 of 1874.
6,000	... ...	... ...	6,000 8,000 30,000	33 34 35	G. O., No. 37 of 1874.
5,000	1,967	...	2,000	36	G. O., No. 1,231 of 1872.
...	...	6,02,563	2,13,550		

General Abstract of the Grants pro-

—	Works.	
	CAPITAL.	
Godavery ...	A.—Eastern Delta Project	
Do.	B.—Western do. do.	
Kistna... ...	C.—Eastern do.—Pulleru Channel	
Do.	D.— Do. do.—Masulipatam Canal	
Do.	E.— Do. do.—Ryves' Channel	
Do.	F.—Western do.—Seetanagaram Canal	
Do.	G.—Budam Project	
Do.	H.—Peddakuncherla Tank	
Nellore ...	I.—Pennair Anicut, Survapully Channel	
Chingleput ...	J.—Madras Water Supply Project	
Do. ...	K.—Chembrumbaukum Tank Project	
North Arcot ...	L.—Seesamangalam Tank Channel	
South Arcot ...	M.—Palandorai Project...	
Tinnevelly ...	N.—Streeviguntum Project	
Do. ...	O.—Murdur Anicut, west channel head sluice ...	
Do. ...	P.—Cannadien Channel, head sluice	
	Minor New Works	
	ORDINARY FOR WHICH NO CAPITAL OR REVENUE ACCOUNT IS KEPT.	
Godavery ...	Q.—Experiments on concrete	
	Grand Total...	

vided for in the foregoing Estimate.

IMPERIAL.			Local Funds.	Contributions.	Grand Total.
In India.	In England.	Total.			
RS.	RS.	RS.	RS.	RS.	RS.
1,59,300	...	1,59,300	...	...	1,59,300
1,95,000	...	1,95,000	...	...	1,95,000
12,645	...	12,645	...	...	12,645
30,000	...	30,000	...	...	30,000
30,000	...	30,000	...	...	30,000
23,254	...	23,254	...	...	23,254
6,000	...	6,000	...	...	6,000
2,000	...	2,000	...	...	2,000
22,774	...	22,774	...	...	22,774
30,000	...	30,000	...	...	30,000
50,000	...	50,000	...	...	50,000
8,000	...	8,000	...	...	8,000
20,000	...	20,000	...	...	20,000
1,09,590	...	1,09,590	...	...	1,09,590
6,000	...	6,000	...	...	6,000
6,000	...	6,000	...	...	6,000
1,03,550	...	1,03,550	...	...	1,03,550
2,000	...	2,000	...	...	2,000
8,16,113	...	8,16,113	...	...	8,16,113

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75.		Estimate, 1873-74.	
		Amount.	Total.	Amount.	Total.
		Rs.	Rs.	Rs.	Rs.
Ganjam ...	Repairs to Irrigation channels, tanks, dykes and drainages.	30,000	30,000	———	30,000
Vizagapatam ...	Do. do. do. ...	17,500	17,500	———	17,500
	A.—Eastern Delta.				
Godavery ...	Godavery anicut	20,000			
	3 Head Locks	1,000			
	Main canal, 4 miles	1,000			
	1.—Cocanada canal, miles 28.	3,000			
	4 Locks and Lock weirs ...	800			
	Do. Distributing channels.	3,000			
	2.—Bank canal, miles 38 ...	3,000			
	3 Locks and Lock weirs...	450			
	Do. Distribution channels.	500			
	3.—Coringa canal, miles 22...	2,500			
	3 Locks and Lock weirs ...	750			
	Do. Distribution channels	1,000			
	4.—Samulcottah canal, miles 32	2,000			
	2 Locks	350			
	5.—Mundapetta canal, miles 14	1,000			
	2 Lock and Lock weirs ...	400			
	Distribution channels ...	2,000			
	6.—Injeram canal, miles 10.	500			
	1 Lock and weir	150			
	Distribution channels ...	1,000			
	7.—Drainages, main... ...	2,500			
	Do. minor ...	1,000			
	Buildings	200			
	Total, A.—Eastern Delta...	48,100			
	B.—Central Delta.				
	1.—Main canal, miles 7 ...	2,000			
	Distribution channels ...	1,000			
	2.—Boudamurlunka Canal—				
	Repairs to Main canal ...	1,000			
	Do. Distribution channels	500			
	3.—Gunnarum or West Bank canal, miles 19 ...	2,000			
	Distribution channels ...	500			
	4.—Nagaram Main canal, miles 17	2,000			
	Distribution channels ...	4,000			
	Carried over...	13,000	47,500	...	47,500

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75.		Estimate, 1873-74.	
		Amount.	Total.	Amount.	Total.
		Rs.	Rs.	Rs.	Rs.
	Brought over...	13,000	47,500	...	47,500
	B.—Central Delta.—(Concld.)				
Godavery.—(*Continued.*)	5.—East Bank canal, miles 40	3,500			
	Distribution channels ...	3,000			
	6.—Drainages, main... ...	5,000			
	Do. minor ...	1,000			
	Total, B.—Central Delta...	25,500			
	C.—Western Delta.				
	1.—Main canal, miles 6 ...	1,500			
	2.—Ellore canal, miles 40 ...	3,000			
	Lock	150			
	Distribution channels ...	1,500			
	Junction canal, miles 4 ...	600			
	1 Lock	200			
	3.—Weyaru, miles 29 ...	1,500			
	2 Locks	250			
	4.—Undi canal, miles 14 ...	450			
	Distribution channels ...	1,000			
	5.—Chinna Capavaram channel, miles 10	700			
	Distribution channels ..	300			
	6.—Attili canal, miles 14 ...	500			
	1 Lock and Lock weir ...	150			
	Distribution channels ...	1,000			
	Kakarapurru canal, miles 8	800			
	7.—Nursapoor canal, miles 30	3,000			
	6 Locks and Lock weirs...	900			
	Distribution channels ...	2,000			
	Bupiah canal	900			
	Rapaka canal	1,400			
	Chincltinada channel ...	1,000			
	Junnur channel	800			
	Gostanuddy	500			
	8.—Bank canal, miles 24 ...	1,000			
	2 Locks and weirs. ...	300			
	Distribution channels ...	2,000			
	Drainages	10,000			
	Total, C.—Western Delta...	37,350			
	Carried over...	...	47,500	...	47,500

GOVERNMENT OF MADRAS.

BUDGET-ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	ESTIMATE, 1874-75.		ESTIMATE, 1873-74.	
		Amount.	Total.	Amount.	Total.
		RS.	RS.	RS.	RS.
	Brought over...	...	47,500	...	47,500
	Ordinary Agricultural works for which no Capital or Revenue Account is kept.				
Godavery.—(*Concld.*)	1.—Protective works to river banks—				
	Eastern Delta	15,000			
	Central do.	10,000			
	Western do.	6,400			
	2.—Repairs to tanks, etc., in upland taluqs ...	23,000			
	Total, Ordinary Agricultural Works	54,400			
	Total...	...	1,65,350	———	1,73,500
	KISTNA ANICUT.				
Kistna ...	Repairs to anicut ...	10,000			
	EASTERN DELTA.				
	Ellore Canal.				
	1.—Main canal—				
	Clearing and repairs to bunds	10,000			
	Repairs to head-works. ...	700			
	2.—Distributing channels—				
	Earthwork	4,000			
	Masonry	1,000			
	3.—Buildings, Repairs ...	100			
	Budameru.				
	Earthwork	500			
	Masonry	400			
	Ryves' Canal.				
	1.—Main canal—				
	Clearing and repairs to bunds	300			
	Repairs to head-works ...	200			
	Gudivada branches ...				
	Earthwork	3,500			
	Masonry	500			
	Masulipatam Canal.				
	1.—Main canal—				
	Clearing and repairs to bunds	10,100			
	Repairs to head-works ...	200			
	Carried over...	41,500	2,12,850	...	2,21,000

GOVERNMENT OF MADRAS.

BUDGET-ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	ESTIMATE, 1874-75.		ESTIMATE, 1873-74.	
		Amount.	Total.	Amount.	Total.
		RS.	RS.	RS.	RS.
	Borought over...	41,500	2,12,850	...	2,21,000
	Masulipatam Canal.—(Concld.)				
Kistna.—(*Continued.*)	2.—Distributing channels—				
	Earthwork	500			
	Masonry	300			
	3.—Buildings—				
	Repairs	400			
	Pulleru.				
	1.—Main Canal—				
	Clearing and repairs to bunds	1,000			
	Repairs to head-works ...	200			
	2.—Distributing channels—				
	Earthwork	1,300			
	Masonry	300			
	Buildings	100			
	Repairs	500			
	East Side Channel				
	Earthwork	300			
	Buttercodu	200			
	Earthwork	600			
	Masonry	200			
	Bantumilly channel				
	Earthwork	200			
	Masonry				
	Distributing channel... ...				
	Earthwork	700			
	Polarazucodu.				
	Earthwork	300			
	Distributing channels ...	1,000			
	Earthwork	600			
	Drainages				
	Miscellaneous...				
	Western Delta.				
	Nizampatam Canal				
	Main canal				
	Clearing and repairs to bunds	6,000			
	Repairs to head-works ...	500			
	Distributing channels ...				
	Earthwork	1,800			
	Masonry	200			
	Buildings				
	Repairs	200			
	East Side Channel.				
	Earthwork	2,000			
	Masonry	500			
	Carried over...	61,400	2,12,850	....	2,21,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75. Amount.	Estimate, 1874-75. Total.	Estimate, 1873-74. Amount.	Estimate, 1873-74. Total.
		Rs.	Rs.	Rs.	Rs.
	Brought over...	61,400	2,12,850	...	2,21,000
	West Side Channel.				
Kistna.—(*Continued.*)	Earthwork	2,000			
	Masonry	500			
	West Bank Canal.				
	Main canal				
	Clearing and repairs to bunds	1,500			
	Repairs to head-works ...	200			
	Distributing channels ...				
	Earthwork	300			
	Masonry	200			
	Buildings				
	Repairs	100			
	Vellatoor Channel.				
	Earthwork	400			
	Masonry	300			
	Iskapilly channel				
	Earthwork	300			
	Masonry	100			
	Commamore Channel.				
	Main canal				
	Clearing and repairs to bunds	4,500			
	Repairs to head-works ...	400			
	Distributing channels ...				
	Earthwork	7,500			
	Masonry	1,300			
	Buildings				
	Repairs	200			
	Tungabudra Channel.				
	Earthwork	200			
	Drainages	7,000			
	Miscellaneous	300			
	Tanks				
	Eastern Delta ... 5,000				
	3rd Range ... 2,500	15,000			
	4th do. ... 2,000				
	5th do. ... 5,500				
	Navigation				
	Eastern Delta, head locks.	2,000			
	Ellore Canal do. ...	300			
	Masulipatam canal, do. ...	1,000			
	Pulleru do. do. ...	100			
	Western Delta				
	Nizampatam Canal locks.	300			
	West Bank do. do.	100			
	Commamoor do. do.	100			
	Carried over...	1,07,600	2,12,850	...	2,21,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75. Amount.	Estimate, 1874-75. Total.	Estimate, 1873-74. Amount.	Estimate, 1873-74. Total.
		Rs.	Rs.	Rs.	Rs.
	Brought over...	1,07,600	2,12,850	...	2,21,000
	Ordinary Agricultural works for which no Capital or Revenue Account is kept.				
Kistna.—(*Concluded.*)	River embankment	2,000	1,09,600		83,000
	SOUTHERN DIVISION.				
	Maintenance of Works.				
	Pennair Delta.				
Nellore ...	Repairs to head-works ...	10,000			
	Clearing silt, Main canal ...	300			
		10,300			
	Survapally Canal.				
	Clearing silt	1,500			
	Repairs to regulating and surplus sluices and to aqueducts.	300			
	Distributing Channels.				
	Wullon Channels.				
	Clearing silt and repairing embankments	600			
	Repairs to masonry works ...	200			
	Idagally Channel.				
	Clearing silt and repairing embankments	100			
	Repairs to masonry works ...	50			
	Ipuru Branch Channel.				
	Clearing silt and repairing embankments	50			
	Repairs to masonry works ...	20			
	Pudaparty Branch Channel.				
	Clearing silt and repairing embankments	50			
	Repairs to masonry works ...	20			
	Kistnapatam Channel.				
	Clearing silt and repairing embankments	500			
	Repairs to masonry works ...	150			
	Carried over...	3,540	3,22,450	...	3,04,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75.		Estimate, 1873-74.	
		Amount.	Total.	Amount.	Total.
		Rs.	Rs.	Rs.	Rs.
	Brought over...	3,540	3,22,450	...	3,04,000
	Mundapudi Channel.				
Nellore.—(*Continued.*)	Clearing silt and repairing embankments	200			
	Repairs to masonry works ...	75			
	Total, Survapully Channel ...	3,815			
	Jaffer Saib's Canal.				
	Clearing silt and repairing embankments	350			
	Repairs to masonry works ...	100			
	Distributing Channels. *Iduru Channel.*				
	Clearing silt and repairing embankments	300			
	Repairs to masonry works ...	150			
	Macherlapaud Branch Channel.				
	Clearing silt and repairing embankments	150			
	Repairs to masonry works ...	50			
	Narakuru Branch Channel.				
	Clearing silt and repairing embankments	100			
	Repairs to masonry works ...	50			
	Varigonda Branch Channel.				
	Clearing silt and repairing embankments	75			
	Repairs to masonry works ...	15			
	Tolapally Guduru Branch Channel.				
	Clearing silt and repairing embankments	100			
	Laburu Channel.				
	Clearing silt and repairing embankments	250			
	Repairs to masonry works ...	100			
	Nedimusali Branch Channel.				
	Clearing silt and repairing embankments	300			
	Repairs to masonry works ...	100			
	Carried over...	2,190	3,22,450	...	3,04,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75.		Estimate, 1873-74.	
		Amount.	Total.	Amount.	Total.
		Rs.	Rs.	Rs.	Rs.
	Brouht over.	2,190	3,22,450	...	3,04,000
	Gungapatam Branch Channel.				
Nellore.—(*Concluded.*)	Clearing silt and repairing embankment	250			
	Repairs to masonry works ...	100			
	Mypaud Branch Channel.				
	Clearing silt and repairing embankments	200			
	Repairs to masonry works ...	75			
	Indukurpet Branch Channel.				
	Clearing silt and repairing embankments	200			
	Repairs to masonry works ...	100			
	Pollapudi Branch Channel.				
	Clearing silt and repairing embankments	100			
	Total, Jaffer Saib's Canal...	3,215			
	Total, Main Canals and Distributing Channels	17,330			
	Drainage Works.				
	Main drain from surplus sluice at Kanuppartypaud	450			
	Lingareddy drainage channel.	150			
		600			
	Tanks.				
	Repair of tanks in Southern Delta of Pennair	7,000			
	Total, Pennair Delta, Irrigation Works	24,930			
	Other Works.				
	Southern Range	17,070			
	Central do.	15,500			
	Northern do.	7,500			
	Total, Other Works...	40,070			
	Grand Total ...	...	65,000		80,000
	Carried over...	...	3,87,450	...	3,84,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75.		Estimate, 1873-74.	
		Amount.	Total.	Amount.	Total.
		Rs.	Rs.	Rs.	Rs.
	Brought over...	3,540	3,22,450	...	3,04,000
	Mundapudi Channel.				
Nellore.—(*Continued.*)	Clearing silt and repairing embankments	200			
	Repairs to masonry works ...	75			
	Total, Survapully Channel ...	3,815			
	Joffer Saib's Canal.				
	Clearing silt and repairing embankments	350			
	Repairs to masonry works ...	100			
	Distributing Channels.				
	Iduru Channel.				
	Clearing silt and repairing embankments	300			
	Repairs to masonry works ...	150			
	Macherlapaud Branch Channel.				
	Clearing silt and repairing embankments	150			
	Repairs to masonry works ...	50			
	Narakuru Branch Channel.				
	Clearing silt and repairing embankments	100			
	Repairs to masonry works ...	50			
	Varigonda Branch Channel.				
	Clearing silt and repairing embankments	75			
	Repairs to masonry works ...	15			
	Tolapally Guduru Branch Channel.				
	Clearing silt and repairing embankments	100			
	Laburu Channel.				
	Clearing silt and repairing embankments	250			
	Repairs to masonry works ...	100			
	Nedimusali Branch Channel.				
	Clearing silt and repairing embankments	300			
	Repairs to masonry works ...	100			
	Carried over...	2,190	3,22,450	...	3,04,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Continued.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75.		Estimate, 1873-74.	
		Amount.	Total.	Amount.	Total.
		Rs.	Rs.	Rs.	Rs.
	Brouht over.	2,190	3,22,450	...	3,04,000
	Gungapalam Branch Channel.				
Nellore.—(*Concluded.*)	Clearing silt and repairing embankment	250			
	Repairs to masonry works ...	100			
	Mypaud Branch Channel.				
	Clearing silt and repairing embankments	200			
	Repairs to masonry works ...	75			
	Indukurpet Branch Channel.				
	Clearing silt and repairing embankments	200			
	Repairs to masonry works ...	100			
	Pollapudi Branch Channel.				
	Clearing silt and repairing embankments	100			
	Total, Jaffer Saib's Canal...	3,215			
	Total, Main Canals and Distributing Channels	17,330			
	Drainage Works.				
	Main drain from surplus sluice at Kanupartypaud	450			
	Lingareddy drainage channel.	150			
		600			
	Tanks.				
	Repair of tanks in Southern Delta of Pennair	7,000			
	Total, Pennair Delta, Irrigation Works	24,930			
	Other Works.				
	Southern Range	17,070			
	Central do.	15,500			
	Northern do.	7,500			
	Total, Other Works...	40,070			
	Grand Total ...	...	65,000		80,000
	Carried over...	...	3,87,450	...	3,84,000

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part IV.—(Concluded.)

Detail of Estimate for Repairs for 1874-75.

—	—	Estimate, 1874-75.		Estimate, 1873-74.	
		Amount.	Total.	Amount.	Total.
	Brought over ..	RS. ...	RS. 3,87,450	RS. ...	RS. 3,84,000
Cuddapah ...	Repairs to Irrigation channels, tanks, dykes, and drainages.	65,000			
			65,000		65,000
Kurnool ...	Do. do. do. ...	30,000			
			30,000		25,000
Bellary ...	Do. do. do.	51,500			
			51,500		51,500
Presidency ...	Do. do. do. ...	3,000			
			3,000		3,000
Chingleput ...	Do. do. do. ...	1,10,000			
			1,10,000		1,10,000
North Arcot ...	Do. do. do. ...	1,20,000			
			1,20,000		1,35,000
South Arcot ...	Do. do. do. ...	1,20,000			
			1,20,000		1,15,000
Salem ...	Do. do. do. ...	53,000			
			53,000		53,000
Tanjore ...	Do. do. do. ...	1,55,000			
			1,55,000		1,55,000
Trichinopoly ...	Do. do. do. ...	81,000			
			81,000		81,000
Coimbatore ...	Do. do. do. ...	60,000			
			60,000		60,000
Malabar ...	Do. do. do. ...	1,100			
			1,100		1,100
Madura ...	Do. do. do. ...	50,000			
			50,000		50,000
Tinnevelly ...	A. Anicut (Sreeviguntum)...	1,000			
	C. 8 Buildings	500			
	F. Miscellaneous	500			
	Total, General...	2,000			
	D. 1.—Main Canal	3,000			
	Do tanks	3,000			
	2.—Distributions... ...	1,500			
	Total, North Side...	7,500			
	1.—South Main canal ...	1,500			
	Do. tank	3,500			
	Distributions	500			
		5,500			
		15,000			
	Other works	65,000			
			80,000		71,400
	Total, Agricultural..	...	13,67,050	...	13,60,000

GOVERNMENT OF INDIA.

Budget of the Irrigation Department for 1874-75.

Part V.

Budget-Estimate of Establishment of the Irrigation Department for 1874-75.

Number.		—	Rate of Salary.	1874-75.			1873-74.
1873-74.	1874-75.			Per mensem.	Per annum.	Total.	
			RS.	RS.	RS.	RS.	RS.
		Extraordinary.					
1	1	Chief Engineer, 2nd Class, and Joint-Secretary to Government in the Irrigation Department ...	2,000	2,000	24,000		
		Pay proper	243½	243½	2,922		
5	5	Clerks from 20 to 150 Rupees each	300	300			
3	3	Draughtsmen and Estimators 40, 50, and 75 Rupees each	165	165			
5	5	Office servants	35	35			
14	14			500	6,000		
		Survey Establishment	.....	.....	35,000		
		Proportionate charges on account of General Establishment ...	.....	.....	107,078	173,000	
		Ordinary.					
		Proportionate charges on account of General Establishment ...	.....	.....	*500,000	500,000	5,12,000
		Conservancy Establishment as per detailed statement annexed, * Rs. General Est. Rs.					
					*500,000		

† Will be forwarded in the course of a few days.

GOVERNMENT OF MADRAS.

BUDGET-ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part VI.

Budget-Estimate of Tools and Plant of the Irrigation Department for 1874-75.

		Navigation.		Machinery for Mills.		Miscellaneous Plant.										Grand Total.	
						Surveying and Mathematical Instruments.		Tools.		Office Furniture.		Camp Equipage.		Total.			
		1874-75.	1873-74.	1874-75.	1873-74.	1874-75.	1873-74.	1874-75.	1873-74.	1874-75.	1873-74.	1874-75.	1873-74.	1874-75.	1873-74.	1874-75.	1873-74.
	EXTRAORDINARY.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	CAPITAL OUTLAY.																
Godavery ...	Western Delta	20,000	...	...	...	57	...	213	...	...	...	...	...	20,670	...	...	...
	Eastern do.																
	Unforeseen demands ...	...	...	...	...	...	...	200	...	...	...	...	...				
Kistna ...	Eastern and Western Deltas...	...	...	...	...	440	...	980	...	...	...	...	...	1,420	...	...	...
Nellore ...	.....	...	...	...	...	9	...	191	...	...	...	...	...	200	...	...	...
South Arcot ...	Palandorai Anicut ...	...	...	...	...	...	...	400	...	...	...	...	...	400	...	...	...
	At the disposal of Government.	20,000	...	...	...	506	...	2,184	...	...	...	...	...	22,690	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	7,310	...	...	...
	ORDINARY OUTLAY.															30,000	
Ganjam ...	.....	...	...	...	...	68	...	875	...	30	...	...	...	973	...	...	...
Vizagapatam ...	.....	...	...	...	...	...	...	2,879	...	...	...	...	...	2,879	...	...	...
Godavery ...	Western Delta	...	...	...	...	57	...	...	...	...	...	...	...	57	...	...	...
	Eastern do.	...	...	...	...	...	...	200	...	...	...	...	...	200	...	...	...
	Central do.	...	...	...	...	586	...	509	...	...	...	...	...	1,095	...	...	...
	Unforeseen demands ...	...	...	...	...	...	...	300	...	...	...	...	...	300	...	...	...
Kistna ...	Eastern and Western Deltas...	...	...	...	...	300	...	500	...	...	...	...	...	800	...	...	...
Nellore ...	.....	...	...	...	...	117	...	383	...	...	...	...	...	500	...	...	...
Karnool ...	.....	...	...	...	...	...	...	872	...	...	...	...	...	872	...	...	...
Chingleput ...	.....	...	...	...	...	233	...	735	...	...	...	...	...	968	...	...	...
South Arcot ...	.....	...	...	...	...	...	...	744	...	...	...	...	...	744	...	...	...
Salem ...	.....	...	...	...	...	773	...	977	...	...	...	...	...	1,750	...	...	...
Tanjore ...	.....	...	...	...	...	...	...	180	...	...	...	...	...	180	...	...	...
Trichinopoly ...	.....	...	...	...	...	3,506	...	209	...	...	...	...	...	3,715	...	...	...
	At the disposal of Government.	...	...	...	...	5,640	...	9,363	...	30	...	...	...	15,033	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	9,967	...	...	...
																25,000	
	REPAIRS AND CARRIAGE FROM PLACE TO PLACE.																
Ganjam ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	100	...	...	...
Godavery ...	.....	8,000	...	...	...	...	...	1,870	...	...	...	...	...	9,870	...	...	...
Kistna ...	.....	2,350	...	...	...	50	...	550	...	50	...	50	...	3,050	...	...	...
Nellore ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	200	...	...	...
Cuddapah ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	250	...	...	...
Karnool ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	190	...	...	...
Chingleput ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	70	...	...	...
South Arcot ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	310	...	...	...
General Superintendent of Public Works Stores.	.....	...	...	...	...	...	...	...	...	...	...	...	...	4,000	...	...	...
	At the disposal of Government	...	...	...	...	...	...	...	...	...	...	...	...	11,960	...	...	...
															...	30,000	...

Rev. 683/74
Irri. 1° 11 73 dated March 74

GOVERNMENT OF MADRAS.

Budget-Estimate of the Irrigation Department for 1874-75.

Part VII.

Estimate of Revenue of the Irrigation Department for 1874-75.

	Budget-Estimate.	Regular-Estimate.	Budget-Estimate.	Actual.
	1874-75.	1873-74.	1873-74.	1872-73.
Godavery, Eastern Delta.				
Receipts from navigation	Rs. 15,000	Rs.	Rs. 15,000	Rs. 14,993
Sales of canal produce	10,000	.....	15,000	14,757
Miscellaneous	1,000	.....	1,000	.....
	26,000	.....	31,000	29,750
Godavery, Central Delta.				
Receipts from navigation	2,500	.....	2,500	2,002
Sales of canal produce	6,000	.....	5,000	7,190
	8,500	.....	7,500	9,192
Godavery, Western Delta.				
Receipts from navigation	18,000	.....	18,000	18,360
Sales of canal produce	3,000	.....	5,000	4,077
Miscellaneous	100	.....	100	.....
	21,100	.....	23,100	22,437
Godavery, Grand Total...	55,600	.....	61,600	61,379
Kistna Delta Project.				
Water-rate collected by Revenue Department ...	8,00,000	.....	8,01,116	6,75,096
Receipts from navigation	9,000	.....	9,750	9,746
Sales of canal produce	3,000	.....	8,000	8,193
Miscellaneous	1,364	.....	1,364	1,364
	8,13,364	.....	8,20,230	694,399
Nellore, Jaffer Sahib's Main Canal.				
Sales of canal produce	110	107	.....	53
Nellore, Survapully Branch Canal.				
Sales of canal produce	190	183	.....	92
Nellore, Total...	300	290	.....	145
Tanjore, Rivers and Channels.				
Sales of canal produce, Nanul grass	1,500	1,500	1,500	1,917
Total...	870,764	1,790	8,83,330	757,840

N B.—The total revenue from irrigation is about 19½ lakhs. That collected in the Revenue Department is shown here only for the Kistna Delta.

FORT ST. GEORGE,
24th January 1874.

(Signed) J. MULLINS, Lieut.-Colonel, R.E.,
Joint Secretary to Government, P. W.D.

Proceedings of the Madras Government, Public Works Department, 24th January 1874.

No. 321cc. Read the following papers:—

From Colonel C. H. DICKENS, R.A., Secretary to the Government of India, Public Works Department (Account—Irrigation), to Colonel G. W. WALKER, R.E., Secretary to Government of Madras in the Public Works Department, dated Simla, 4th November 1873, No. 271-A.—I.

I AM directed to acknowledge receipt of your letter, No. 2,350B, dated 22nd September 1873, forwarding a rough estimate of the funds required for irrigation works under the Government of Madras for 1874-75, and in reply to state as follows.

2. Under "Extraordinary" the demand amounts to ten lakhs, of which Rupees 75,000 is for the works noted in the margin, for which estimates have not been sanctioned by competent authority. Disallowing this amount, the demand is reduced to Rupees 9,25,000, of which sum Rupees 1,50,000 may be considered as being available from the refund that has to be made to the Extraordinary grant on account of the expenditure from that grant on the Madras Water Supply Project. The balance that has to be allotted under the head "Extraordinary" is thus Rupees 7,75,000, and this amount will accordingly be allowed in the orders distributing the agricultural allotment for 1874-75.

	Rs.
Central Delta improvements in the Godavery	25,000
Eastern and Western Delta improvements in the Kistna	50,000
	75,000

3. A separate communication will be addressed to the Government of Madras relating to the refund to be made to the Extraordinary grant of the outlay incurred on the Madras Water Supply Project. Meanwhile it may be noted that the Budget Estimate for next year under the head "Extraordinary" should be prepared *in detail* for an aggregate of Rupees 9,25,000, a deduction being made from this amount of the refund of Rupees 1,50,000 referred to.

4. Of the demand made under "Extraordinary," one lakh is for the Streevigguntum Anicut Project, on which it seems likely that there will be an excess outlay of about a lakh of rupees. The revised estimate for this project was called for in the orders on the Madras Budget Estimate for 1873-74, but it has not been received as yet. I am to ask that the Government of Madras may be moved to take such steps as will ensure the submission of the revised estimate at a very early date.

5. Under "Ordinary" the demand is as follows as compared with the grant for 1873-74:—

	Demand. 1874-75.	Grant. 1873-74.
	Rs.	Rs.
Works	5,00,000	3,55,000
Repairs	14,00,000	13,60,000
Establishment	5,00,000	5,12,000
Plant	50,000	23,000
	24,50,000	22,50,000

6. Financial reasons render it necessary to reduce the demand for next year to Rupees 22,50,000, which amount includes a sum of Rupees 1,50,000 to be refunded to the loan grant on account of the Madras Water Supply Project. The Government of India is aware that this refund will trench largely on the Public Works allotment of the Madras Presidency, but even allowing for the refund, the balance of the allotment of twenty-one lakhs will be Rupees 61,780 more than what was spent under the head "Ordinary" on irrigation works in Madras during 1872-73.

It is left to the Government of Madras to distribute the allotment amongst the several heads of service as the circumstance of the case may require.

7. In the preparation of the Budget Estimate for irrigation works for the grant* herein assigned, it is requested that the instructions contained in the memorandum accompanying Public Works Department Circular No. 64 of 1871, and in paragraphs 11 to 13 of the orders on the Madras Budget Estimate for 1873-74 may be allowed as far as possible. The memorandum required by paragraph 7 of Public Works Department letter No. 333-A.—I., dated 30th October 1872, showing the probable revenue due to irrigation works, should also be submitted with the Budget.

	Rs.
* Extraordinary	7,75,000
Ordinary...	22,50,000
	30,25,000

8. It is to be noted that the sums assigned, provide for expenditure to be incurred in England on stores for irrigation works, and the Budget Estimate should therefore be prepared accordingly.

No. 321D. From the Government of India, Public Works Department (Account—Irrigation), dated Simla, 4th November 1873, Nos. 279-88-A.—I.

Public Works Budget Grant for Agricultural Works for 1874-75.

Read again—

Orders on the several Irrigation Budget Estimates for 1873-74.

RESOLUTION.—The Government of India having had under consideration the question of the amount that can be allotted from Imperial revenues for expenditure on irrigation and agricultural works during 1874-75, have decided that the grant for this purpose shall be fixed as follows :—

	During 1874-75.		During 1873-74.
	£		£
From ordinary revenues	769,600	against	769,600
,, loan funds	1,310,000	,,	1,266,000
Total...	2,079,600	,,	2,035,600

2. The grant assigned for 1874-75 has been distributed as follows as compared with the demands from the several Local Governments and Administrations, and the grant for the current official year :—

	Ordinary.			Extraordinary.			Total.		
	1874-75.		1873-74.	1874-75.		1873-74.	1874-75.		1873-74.
	Demand.	Grant.	Grant.	Demand.	Grant.	Grant.	Demand.	Grant.	Grant.
	£	£	£	£	£	£	£	£	£
Madras ..	215,000	225,000	225,000	100,000	77,500	92,000	315,000	302,500	317,000
Bombay ..	210,000	142,500	142,500	232,500	132,500	105,000	442,500	275,000	247,500
Bengal ..	134,100	90,000	90,000	555,800	457,500	410,000	689,900	547,500	500,000
North-Western Provinces ..	228,740	147,500	147,500	578,100	320,000	295,500	806,840	467,500	443,000
Punjab ..	141,600	124,500	124,500	570,000	400,000	437,306	711,600	524,500	561,806
Central Provinces.	1,500	1,000	1,000	25,000	..	..	26,500	1,000	1,000
British Burmah ..	31,700	29,000	29,000	..	..	..	31,700	29,000	29,000
Rajpootana ..	12,509	10,000	10,000	22,860	2,500	16,200	35,369	12,500	26,200
Coorg	100	100	100	..	..	..	100	100	100
Total..	1,005,249	769,600	769,600	2,084,260	1,390,000	1,356,006	3,089,509	2,159,600	2,125,600
Less amount to be provided from contributions for Sirhind Canal in the Punjab ..	..	..	..	..	80,000	90,000	..	80,000	90,000
Net Imperial Grant.	1,005,249	769,600	769,600	2,084,260	1,310,000	1,266,000	3,089,509	2,079,600	2,035,600

3. The grants herein assigned provide for all agricultural works, as well as for the maintenance of irrigation works generally, and the charges on account of establishment and tools and plant employed on the works. The amount of probable expenditure in England on stores for irrigation works is also included in the grants, and the Budget Estimates should, therefore, be compiled accordingly.

4. Orders have been issued to the Local Governments and Administrations noted in the margin, to provide for the expenditure of a Supplementary grant of Rupees 8,40,000, under the head "Ordinary," in case it is found to be possible hereafter to assign such a grant. The provision for the additional allotment should be embodied in the regular Budget Estimate under the heads of service to which they appertain, but the amounts making up the additional allotment should be entered in the Budget Estimate in a column distinct from the regular grant of the year. This may be done by an additional column according to the form annexed, showing how the extra allotment is proposed to be distributed. Two copies of Parts I. and II. should be submitted ; the first to show the distribution of the grants originally herein assigned, and the other, which should be in manuscript, to include the original and supplementary allotment.

	Rs.
Bombay	2,75,000
Bengal	2,00,000
North-Western Provinces	2,00,000
Punjab	55,000
British Burmah	10,000
Rajpootana	1,00,000
	8,40,000

5. Endeavours should be made to prepare the revenue portion of the Budget Estimates as accurately as possible. The complete Budget Estimate should be submitted on the prescribed date, viz., the 1st January.

6. Separate orders will be issued to the several Local Governments and Administrations concerned, regarding the reduction made in their demands for agricultural works.

Governments of Madras, Bombay, Bengal, North-Western Provinces, and Punjab, in the Irrigation Branch.
Chief Commissioners of the Central Provinces, British Burmah, and Coorg.
Governor-General's Agent for Rajpootana.

ORDER.—Ordered that this Resolution be communicated to the several Local Governments and Administrations noted in the margin, for information and guidance, and to the Financial Department for information.

(Signed) C. H. DICKENS, Colonel, R.A.,
Secy. to the Govt. of India.

GOVERNMENT OF _____

BUDGET ESTIMATE OF THE IRRIGATION DEPARTMENT FOR 1874-75.

Part III.

Detail of Estimate for Original Works, Irrigation, for the year 1874-75.

Executive Divisions.	No.	Detail of Work and Locality.	Amount of Estimate.	Computed Expenditure to 31st March 1874.	Estimate 1874-75. Extra-ordinary.	Estimate 1874-75. Ordinary.	No.	Remarks or References.	Amount of Supplementary Estimate for 1874-75. Ordinary.

NOTE.—Should it be considered necessary, when preparing the Budget, to distribute a portion of the proposed supplementary grant to either Repairs, Establishment, or Tools and Plant, an additional column should be added to those parts of the Budget in a manner somewhat similar to that done here.

No. 321E. From Colonel C. H. DICKENS, R.A., Secretary to the Government of India, Public Works Department (Irrigation), to Colonel G. W. WALKER, R.E., Secretary to the Government of Madras in the Public Works Department, Irrigation Branch, dated Fort William, 9th December 1873, No. 854-I.

I AM directed to forward, herewith, copy of a despatch from the Secretary of State, No. 59, dated 10th July 1873, regarding the particulars of the case connected with the Madras Water Supply Project, and to observe as follows.

2. As regards the probable cost of the work, the Government of India are much disappointed to learn from a report made by the Accountant-General, Public Works Department, that the total outlay on the work is likely to amount to more than fifteen lakhs instead of Rupees 12,25,558, the increase being due to no provision having been made in the estimate for establishment and tools and plant. The actual outlay on the project to end of 1871-72 is reported to have amounted as follows:—

	From Loan Funds.	From Ordinary Grant.	Total.
	Rs.	Rs.	Rs.
Works	8,45,616	2,02,106	10,47,722
Establishment	1,64,231	60,030	2,24,261
Tools and Plant	7,901	6,000	13,901
	10,17,748	2,68,136	12,85,884

The actual outlay of 1872-73, and the grant for 1873-74, both from Ordinary Funds, is as follows:—

	Works.	Establishment.	Tools and Plant.	Total.
	Rs.	Rs.	Rs.	Rs.
1872-73, Outlay	92,883	* 20,000	* 2,000	1,14,883
1873-74, Grant	77,000	25,015	1,123	1,03,138
	1,69,883	45,015	3,123	2,18,021

* Approximate.

Combining the actual outlay with the probable charges, the result is as follows:—

	Loan Funds.	Ordinary Funds.	Total.
	Rs.	Rs.	Rs.
Works	8,45,616	3,71,989	12,17,605
Establishment	1,64,231	1,05,045	2,69,276
Tools and Plant	7,901	9,123	17,024
	10,17,748	4,86,157	15,03,905

The Government of India must beg of the Government of Madras to take immediate steps to have a report submitted, to show how the omission of the charges for establishment and tools and plant in the last revised estimate occurred, and escaped notice. A detailed report should also be submitted, showing what the eventual total cost of the project [including charges for simple accumulated interest, and capitalization of the revenue lost by the land taken up for the work] under all heads is likely to amount to.

3. The increased outlay on the project renders it less likely than ever that the returns from the work will be such as to justify the debit of any portion of the expenditure incurred to Loan Funds. It, therefore, becomes necessary to give effect to the wishes of the Secretary of State, that the sum already spent under "Extraordinary" should be refunded from the Ordinary grant, the amount to be so refunded being, as above shown, Rupees 10,17,748.

4. The Government of India being desirous to afford every assistance in its power to the Government of Madras to make such a refund, have authorized the Accountant-General, Public Works Department, to debit the Ordinary grant and credit the Extraordinary grant with a sum of Rupees 5,70,000 in the accounts of 1872-73 for the Madras Water Supply Project. This adjustment leaves a sum of Rupees 4,47,748 to be credited to the Extraordinary grant, and the Governor-General in Council thinks it would be proper, in the interests of financial regularity, to require that the amount should be made good partly from Provincial Funds, and partly from the Imperial Ordinary grant for agricultural works.

5. Of the total sum to be recovered it is considered that two lakhs should be made good from Provincial Funds by annual instalments of Rupees 50,000, each commencing from 1874-75. The work is more "Miscellaneous Public Improvement" (being chiefly connected with the supply of water to the town of Madras) than Irrigation, and it would, therefore, seem to be quite appropriate to require that a portion of the outlay should be made good from Provincial Funds. This proposal, I am to add, is somewhat in accordance with that suggested in paragraph 21 of your letter No. 312, dated 23rd August 1871, in which it was proposed that a sum of Rupees 4 lakhs should be recovered from the Government of Madras on account of this project.

6. As regards the balance of the sum of Rupees 2,47,748 that would have to be made good to Loan Funds, the Government of India have no objection to its being recovered in three instalments from the Ordinary grant for agricultural works. The assignment made in the Madras Budget for 1873-74 for the Madras Water Supply Project is Rupees 1,03,138, and proceeding on the assumption that the project will be completed during the current official year, it requires only the continuance of the provision in the Budget Estimates of the next two years, and providing sufficient to meet the remainder in the third year to give effect to the proposal.

7. Before issuing final orders to this effect, the Governor-General in Council desires to receive and consider an expression of the views of the Government of Madras on the subject.

8. It is understood that the work has been nearly completed, and the Government of India are naturally anxious to learn what immediate prospect there is of getting the small return expected from the large outlay invested. The

Governor-General in Council would be glad to receive a report on the subject at an early date from the Government of Madras. The principal source of revenue is from the Madras Municipality. The terms on which the Corporation are being supplied with water are that they are to pay 1 Rupee for every 1,000 cubic yards which the Municipality may use out of the 32,000,000 held at their disposal. It is not known what arrangements have been made by the Government of Madras to ascertain the quantity of water used, or from what year the Municipality should commence to pay for the water consumed. In all probability the payment should have effect from the current year, but in the estimate of Public Works revenue for 1873-74 no provision is made for the receipt of this payment. An explanation on this point is specially desirable, and it should be stated at the same time whether the estimate made of the cost of revenue expenses, amounting to Rupees 11,500 per annum, is trustworthy, or not. The estimate does not provide for the cost of collection, and there would, therefore, seem to be some reason to doubt whether it is complete.

From the Right Honourable the Secretary of State for India, to His Excellency the Right Honourable the Governor-General of India in Council, dated India Office, London, 10th July 1873, No. 59 :—

Your Excellency's letter, dated the 21st of February, No. 27, transmits an explanation regarding the charges which the Municipality of Madras will have to meet on account of the project for the supply of water to that city.

2. In the letter addressed to me by your Government on the 16th of February 1872, No. 20, which apparently reviewed the whole history of the scheme, no allusion was made to the loan of about thirteen lakhs to the Municipality for the purpose of carrying out the works for distributing the water; and my attention was, in consequence, not drawn to the circumstances connected with that part of the transaction.

3. On referring however to the papers which accompanied the letter from your Government of the 3rd of September 1869, No. 120, I learn that two alternative plans were submitted to the Municipality, by the one of which they were to become joint proprietors with the Government in the works which were being carried out under the title of the Madras Water Supply Project, and were to be entitled to the free use of a certain supply of water; while by the other they were to borrow, at six per cent. interest, a sum of Rupees 12,80,000, for the construction of the distribution works, and, further, were to pay at the rate of a rupee for every 1,000 cubic yards of water which they might use out of the 32,000,000 cubic yards held at their disposal. Although the first of these proposals had been submitted to the Municipal Commissioners as embodying the more favourable terms, they nevertheless elected the second, because they anticipated that the works, over which they had no control, would cost far more than the estimate.

4. In your Resolution of the 1st of February 1869 orders had been given for the revision of certain calculations, with the view of ascertaining, before final orders were passed, whether there was sufficient water for the project. I do not find it stated in the papers that any steps were taken to satisfy your doubts on this point; but, notwithstanding, on the choice of the Municipality being intimated to your Government, final orders were issued on the 25th of June 1869 granting them the loan on the terms originally proposed.

5. Bearing this in mind, I must admit it to be impossible to demand from the Municipal Commissioners a higher payment, now that it has been found, as they anticipated, that the works have been more expensive than was estimated by the Government Engineers. It was only under a misapprehension of the position of affairs that the consent to such a demand was given in my despatch of the 18th of April 1872, No. 35.

6. The following, then, appears to be the actual state of the project. The works have cost Rupees 12,25,578; the receipts are estimated at Rupees 29,772 from the irrigation of waste lands, to be supplemented by a payment at the rate of 1 Rupee for each 1,000 cubic yards which the Municipality may use out of the 32,00,000 held at their disposal. Assuming that they take the whole, and therefore pay Rupees 32,00, the aggregate gross receipts will be Rupees 61,772, and the net receipts, after allowing for the deductions mentioned in the 15th paragraph of your Government's letter of the 16th of February 1872, will be about 4 per cent. on the total outlay.

7. It being clear that such a result is not one which justifies the debit of the expenditure against loan funds, your Excellency proposes to charge in that manner the eight lakhs which formed the estimate for the revised project, and to recover the remainder gradually from the ordinary agricultural and provincial assignments to Madras, this being, in your opinion, the only course which will avoid the effect of crippling the operations of the Public Works Department in Madras for some years to come.

8. I regret that I cannot concur with your Excellency as to the mode in which the difficulty should be met. It is entirely opposed to the policy under which expenditure on remunerative works of irrigation is permitted to be undertaken from borrowed money, that any portion of the cost of a work which is shown to be unremunerative should be debited against loan funds. One of the most wholesome checks on the tendency to be over-sanguine in preparing projects of irrigation would be removed if the local authorities had reason to think that, whether the work should eventually prove remunerative or not, the amount of the original estimate would be obtained from borrowed money, and that the allotments for other works would only be curtailed to the extent by which that first estimate might have been exceeded.

9. In the case of the Madras Water Supply Project, I leave it to your Excellency to determine in what manner the cost may be met with least detriment to the public interests; but no part of either the principal or interest of the money laid out in such a scheme should be eventually debited to extraordinary funds. If unfortunately the result of your orders should be to cripple the operations of the Public Works Department at Madras for a time, I can only look on it as an evil which is the necessary consequence of an arrangement entered into by the Madras Government without due care in the examination of the estimates, and without sufficient forethought as to the receipts likely to be realized.

Read the following papers:—

No. 321F. From the District Engineer, Vizagapatam, through the Chief Engineer for Irrigation, dated 9th December 1873, No. 1,696.

No. 321G. From do. do. Godavery, do. do. dated 22nd Nov. 1873, No. 2,526.
No. 321H. From do. do. Kistna, do. do. „ „ „ „ „
No. 321I. From do. do. Nellore, do. do. „ 28th Oct. „ „ 107.
No. 321J. From do. do. Kurnool, do. do. „ 5th Nov. „ „
No. 321K. From do. do. Chingleput, through the Chief Engineer for Irrigation, dated 17th November 1873, No. 2,194.
No. 321L. From do. do. North Arcot, do. do. „ 30th Oct. „ „ 2,389.
No. 321M. From do. do. South Arcot, do. do. „ 1st „ „ „ 220.
No. 321N. From do. do. do. do. do. „ 29th „ „ „ 144.
No. 321O. From do. do. do. do. do. „ 14th „ „ „ 131.
No. 321P. From do. do. Tanjore, do. do. „ 20th „ „ „ 724.
No. 321Q. From do. do. Tinnevelly, do. do. „ 17th „ „ „ 110.
No. 321R. From do. do. Presidency, do. do. „ 20th Dec. „ „ 4,508.

Proceedings of the Madras Government, Public Works Department, 24th January 1874.

No. 321S. ORDER THEREON, 24th January 1874, No. 162B.

IRRIGATION, No. 32.

Account.

IN the letter and Resolution above recorded, the Government of India make the allotments of funds for Irrigation Works for the year 1874-75 to this Presidency, and to the several Provinces. Under "Extraordinary" it is observed that, as all works for which estimates have not been already sanctioned have been struck out, the grant of Rupees 7,75,000 will more than suffice.

2. Under "Ordinary" the sum asked for was Rupees 24½ lakhs, and this has been reduced to 22½ lakhs, the grant of 1873-74; while, in their letter of the 9th December, No. 854-I., a refund of 1½ lakhs to Loan Funds, on account of the expenditure from that source on the Madras Water Works Project, has been directed by the Government of India to be made.

3. His Excellency the Governor in Council is of opinion that it is not practicable to make a refund of 1½ lakhs out of the grant assigned. In the Budget Estimates as compiled by the Chief Engineer for Irrigation the entries for Major Works under "Capital Ordinary" are eight in number, and their total is Rupees 1,10,000. Of these works the only two of any magnitude are the Madras Water Works, and the Chembrumbaukum Tank, to which Rupees 30,000 and 50,000 have been allotted respectively. The other six entries are for small works in progress, for two head-sluices intended to prevent a repetition of the damage caused by floods in the Tambrapoorney a few years ago, and the construction of which has been already too long delayed, and for concrete and cement experiments which are necessary in order that the lime-stones used on the Godavery Delta Works may be properly treated. There is manifestly not much room for retrenchment here, and it has accordingly not been found practicable to provide the one lakh directed to be entered for village drainage in the Godavery Delta (*Vide* G. O., No. 1,267, dated 10th December 1873, Public Department), nor the Rupees 20,000 promised in G. O., No. 3,081-A., dated 30th December 1873, for the Polaveram embankment. Under "Capital Ordinary" the other provisions are for—

	RS.
Minor Works	1,03,550
Tools and Plant	25,000

Of the former, Rupees 30,000 are intended to meet the required appropriations for Incomplete Works of the current year, and the contingent demands for works which it may be necessary to sanction during the year, while the balance is for the Petty Works in the shape of sluices, escapes, and distributaries which ought to be provided for faster than any such assignment will permit. The entry for tools and plant needs no remark as such appliances cannot be dispensed with. Establishments are estimated at five lakhs.

4. Under "Repairs" the Budget Estimates show—

	RS.
For Repairs of Works	13,67,050
Tools and Plant	30,000

The first is greater by Rupees 7,050 than the grant of 1873-74, which there is every probability will prove inadequate. For the security of the revenue and

to make up for past neglect, it is necessary that the grant should be liberal, and that District Officers should be required to pay more, rather than less, attention to a matter of so much importance. The area of Irrigation in this Presidency was, for the year 1871-72, 4·829 millions of acres, with a revenue of 193 lakhs. This area has certainly not decreased since then, but it is on the other hand constantly on the increase, and a frequent and reasonable remark on the part of those who pay this special revenue, and do not get the water they require, owing to funds not being available to effect clearances or carry out repairs, is that, so long as they are called upon to pay for water, the Government ought to ensure its reaching them.

5. The Budget Estimates provide for a refund of one lakh, and the Government of India will be requested to accept them as they stand. If a larger refund be considered necessary, in order that Loan Funds may be recouped for unremunerative outlay, His Excellency in Council considers that the assignment should be increased. The grants for New Works have year by year been greatly reduced, owing to such works being now to a considerable extent carried out from Loan Funds, and consequently there is very little money left under "Ordinary" from which a retrenchment can be made. Should the Government of India decline to accede to this proposition the allotment to the Madras Water Works must be cancelled, and that for the Chembrumbaukum Tank reduced to Rupees 30,000.

(Here enter No. 162c., dated 24th January 1874.)

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To District Engineers.
To the Chief Engineer for Irrigation.
,, Revenue Department. *State Budget*
,, Board of Revenue.
,, Accountant-General.
,, Officiating Controller of Public Works Accounts.

Exd. W. H. French.
Spare Copies

Revenue Depte

Govt. of Madras.

PUBLIC WORKS.

No 683

To.

DISTRICT ENGINEERS,

&c., &c., &c.

Dated January 1875.

Rect. March 2. Pad. 1

G. O., 24th Jan. 1875, No. 11 C.R.

JANUARY.

Nos. 321 to 3218

Ver 801/74

Irrigation Budget Estimate.—Passing orders on the Budget Estimate of the Irrigation Department for 1874-75.

No. 11

Lodged

3d March 1874