

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	2425-26	Press
B.P. No.		Mis.
Dated	27 - 8	195
		874

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
27th August 1874.*

Read the following papers:—

No. 653.	From the District Engineer, Ganjam, dated 30th June 1874.
No. 654.	From do. Godavery „ 23rd July „
No. 655.	From do. do. „ 23rd „ „
No. 656.	From do. Kistna „ 20th „ „
No. 657.	From do. do. „ 17th „ „
No. 658.	From do. Nellore „ 13th „ „
No. 659.	From do. South Arcot „ 18th „ „
No. 660.	From do. Tanjore „ 31st „ „
No. 661.	From do. Tinnevelly „ 18th „ „
No. 662.	From do. do. „ 3rd „ „

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the quarter ended 30th June 1874.

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
Godavery. Extension of irrigation from Eastern Delta.	RS. 14,00,200	RS. 1,59,300	RS. 30,267	RS. 30,267	RS. 4,92,500	1. <i>Head Sluice</i>.—Estimate Rupees 17,890. Postponed. Designs for screw gearing to shutters under preparation. 2. <i>Main Duct</i>.—Estimate Rupees 28,060 ... 0-30. Two-thirds of the 3rd mile, three-fourths of the 4th mile, whole of the 5th mile, three-fourths of the 6th mile, completed to project section. Work now in abeyance. 3. <i>Cocanada Canal</i>.—Estimate Rupees 1,86,800— Earthwork ... 0-85. Earthwork completed except 2½ miles below Madapad lock, and raising banks in 27th and 28th miles. Masonry ... 0-95 } Locks all completed. Distribution ... 0-59. Madapad S. S. H. L. channel and aqueduct completed. Karpa and Sampara Bodi dividing dams completed. Head-sluiice to do. raised 4 feet high. 4. <i>Mundapetta Canal</i>.—Estimate Rupees 74,100— Earthwork ... 1-23. Earthwork completed, except two miles below Pasalapudi lock. Masonry ... 0-42. Lock and weir completed. Design for screw gearing for Pasalapudi weir and surplus weir in 11th mile under preparation. Distribution ... 0-03. Matchavaram distribution channel under excavation. 5. <i>Bank Canal</i>.—Estimate Rupees 2,33,200— Earthwork ... 0-00. Earthwork commenced at head and partially done as far as old Calingulah.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Masonry ... 0-08. Chopella lock foundations laid to level of lower cill and rear, front and side walls raised 4½ feet high. Face work on this lock being laid 2 feet deep in cement of one mortar to one burnt clay. Results very satisfactory. 6. <i>Coringa Canal</i>.—Estimate Rupees 74,300— Earthwork ... Not commenced. Masonry ... 0-11. Tanumulla under-tunnel completed. Distribution ... 0-04. Wodoor Bodi aqueduct raised to level of springing of arches. 7. <i>Injeram Canal</i>.—Estimate Rupees 28,050— Earthwork ... 0-60. Raising banks below the lock done, down to 32nd mile. Masonry ... 0-63. Distribution ... Postponed. 8. <i>Biccavole Drain</i>.—Estimate Rupees 65,000— Earthwork ... 0-61 } End of drain completed. Kykavole Masonry ... 0-76 } drain completed and acting well. Screw gearing being fitted to Biccavole Calingulah shutters. Walls of second drop raised 2 feet. The H. W. level of drain during last October was very nearly equal to the project H. W. M. 9. <i>Tooliabaga Drain</i>.—Estimate Rupees 1,38,100— Earthwork ... 0-53 } Some earthwork done in first five miles Masonry ... 0-90 } of drain. Calingulah completed. Observed H. W. levels for October last vary from 5 to 1-15 above H. W. M. of project for two-thirds of the drain, below that down to its tail it varies from 1-15 to 2-82 above H. W. M. of project at junction with Matta-polem creek. 10. <i>Takee Main Drain</i>.—Estimate Rupees 2,66,300— Earthwork ... 0-07 } The rains have greatly interfered with Masonry ... 0-69 } the vigorous prosecution of work on Distribution ... Postponed. } this drain. Nothing could be done upon it after the middle of June, the Buntadars having left for their villages. About 4,000 Rupees remained to be paid for work executed up to that date. Calingulah work in progress. Concrete foundations all laid, and rough stone foundations to body wall and wings in progress.					
---	--	--	--	--	--

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
	RS.	RS.	RS.	RS.	RS.	
Extension of irrigation from Western Delta.	14,10,000	1,95,000	42,849	42,849	5,40,163	11. <i>Rest-houses</i>.—Estimate Rupees 10,000 ... 0.76. Chintapilly and Dowlaisheram Rest-houses completed. Those at Jagannadhagiri and Cotipilly raised to level of eaves. 12. <i>Compensation for lands</i>.—Estimate Rupees 56,800. The measurements for land under the Takee and Biccavole drains being taken. Those for Tooliabaga already done and register forwarded to Collector. 13. <i>Samulcottah Canal</i>.—Estimate Rupees 1,31,200— Earthwork ... 1.16 Masonry ... 0.85 14. <i>Bemaveram Escape</i>.—Estimate Rupees 4,200. Wing-walls of Bemaveram escape raised 2 feet. 15. <i>Tools and Plant</i>.—Estimate Rupees 86,200. 1. <i>Head Sluice, Main Canal</i>.—Estimate Rupees 19,500. 2. <i>Main Canal</i>.—Estimate Rupees 49,000— Earthwork ... 0.19. Trimming banks, etc., finished. 3. <i>Kakaraparru Canal</i>.—Estimate Rupees 33,000. Not commenced. 4. <i>Narsapur Canal</i>.—Estimate Rupees 2,09,600— Earthwork ... 1.00. Finished. Masonry ... 0.59. Mogultoor lock upper cill put and work generally 6 feet above floor. Distribution ... 0.40.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

5. <i>Bank Canal</i> .—Estimate Rupees 1,07,900— Masonry above drains... 0.44.	
6. <i>Venkiah and Weyairu</i> .—Estimate Rupees 11,960— Earthwork ... 0.12. Masonry ... 0.27. Ankutigapad sluice finished except coping to parapets.	
7. <i>Undi Canal</i> .—Estimate Rupees 1,10,700— Earthwork ... 0.73. Strengthening banks between 8th and 16th miles, and excavating head lock channels in progress. Masonry ... 0.31. Undi head lock upper cill put. Turning upper and lower longitudinal culvert arches in progress. Distribution ... 0.10. Bondada channel finished.	
8. <i>Attily Canal</i> .—Estimate Rupees 86,000— Earthwork ... 0.57. Trimming banks above Gunnampad lock in progress. Masonry ... 0.62. Gunnampad lock 6 feet above floor. Distribution ... 0.44. Various sluices and improvements to channels in progress.	
9. <i>Gostanuddy and Velpur</i> .—Estimate Rupees 1,41,060— Earthwork ... 0.21. New cut from Gostanuddy in progress, and banks everywhere being trimmed. Masonry ... 0.19. Head lock 10 feet above floor. Head weir. Crest stones of body wall being put.	
10. <i>Nakkala Drain</i> .—Estimate Rupees 13,200. Not commenced.	
11. <i>Gostanuddy Out-fall and Sluice</i> .—Estimate Rupees 94,000— Earthwork ... 0.07. Making two cuts from Bobanapilly bund to Vempad salt creek finished.	
12. <i>Yanamadura Drain</i> .—Estimate Rupees 28,800— Earthwork ... 0.46. Strengthening banks near Yendagaud in progress.	

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
	RS.	RS.	RS.	RS.	RS.	
13. Other Drains.—Estimate Rupees 28,200—						
A.—Bundada and Rudroyacodu—						
Earthwork ...	...	...	...	0-37.	...	Earthwork on Bundada drain in progress for half a mile above last year's work; only this half a mile will be done this season as work is interfered with by rain.
B.—Caza Drain—						
Earthwork ...	...	...	...	0-60.	...	Work for 1½ miles south of Palcole and Doddeputta road finished.
C.—Buggeswaram Drain—						
Earthwork ...	...	...	...	1-00.	...	Finished.
D.—Minor Drainages—						
Earthwork ...	...	...	...	0-25.	...	Rayallem drain finished, except trimming banks.
14. Drain west of Nursapur Canal.—Estimate Rupees 18,320—						
Earthwork ...	...	...	...	0-80.	...	...
Masonry ...	...	...	...	...	...	Finished.
15. Ellore Canal.—Estimate Rupees 1,43,700.						
15-A. Main Canal.—Estimate Rupees 55,000—						
Earthwork ...	...	...	...	0-33.	...	...
Masonry ...	...	...	...	0-36.	...	Poolla sluice and various new irrigation channels in hand.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

15-B. <i>Mid Level Channel</i> .—Estimate Rupees 64,180—				
Earthwork	...	...	0-89.	Finished.
Masonry	...	...	0-82.	Drop at 14 miles, and three sluices in hand.
15-C. <i>Low Level Channel</i> .—Estimate Rupees 19,290—				
Earthwork	...	...	0-87.	
Masonry	...	...	0-79.	One irrigation sluice in hand.
15-D. <i>Pundicodu Drain</i> .—Estimate Rupees 59,530—				
Earthwork	...	...	0-89.	Finished.
Masonry	...	...	...	
15-E. <i>Drain from 9½ miles</i> .—Estimate Rupees 24,000—				
Earthwork	...	...	0-65.	
Masonry	...	...	0-66.	
15-F. <i>Drainage Diversion</i> .—Estimate Rupees 21,700—				
Earthwork	...	...	0-78.	
Masonry	...	...	0-67.	Drop at 3½ miles finished, except coping of wings and body wall.
16. <i>Rest-houses</i> .—Estimate Rupees 23,200... 0-41. Rest-house at Chettipett finished. Rest-house at Peravilly nearly finished. Materials under collection for others.				
17. <i>Restoring Navigation with Weyairu</i> .—Estimate Rs. 72,500—				
Earthwork	...	...	0-85.	Finished.
Masonry	...	...	0-90.	
18. <i>Additional Surplus Weir near the head of the Ellore Canal</i> .—Estimate Rupees 14,000—				
Masonry	...	...	0-82.	Parapets still to be coped.
19. <i>Tools and Plant</i> .—Estimate Rupees 1,05,360.				

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
Extending Commamore Channel.	RS. 5,680	.....	.....	.....	RS. 5,430	Earthwork and Masonry 0.94
	1,95,770	.....	.....	Recovery.	1,76,508	Earthwork... .. 0.94
					240	Revetment... .. 0.89
Constructing a Bridge across Commamore Channel at Kolakalore.					1,76,263	Masonry 0.75
	8,030	.....	137	137	16,035	
	16,060			Recovery.	140	Masonry 0.99
Nellore. Improvements to the Surrapully Channel.	4,20,060	22,774	7,750	7,750	15,895	
					3,86,478	Head Sluice.—Estimate Rupees 18,060 0.72
						Regulating Sluice at the Head of Jaffer Sahib's Channel.—Estimate Rupees 4,720.—1.09 Completed.
Deepening Surrapully New Cut and improving old Ramareddy Channel.—Estimate Rupees 95,500.						Earthwork 0.94
						Masonry 0.94 Completed with the exception of Rubble pitching 0.70 one irrigation sluice.
						Gravel backing 0.75
						Miscellaneous 1.50
Surrapully Channel.—Estimate Rupees 1,26,500.						
Earthwork						0.85

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Masonry	1.04 Completed.
Drainage	0.95
Miscellaneous	2.12
Main Reservoir.—Estimate Rupees 1,14,000.	
Earthwork	1.02
Laterite revetment	0.82
Gravel backing	0.80
Masonry	1.15 Completed.
Miscellaneous	0.98
Idagali Channel.—Estimate Rupees 33,440.	
Earthwork	0.90 Nearly completed.
Masonry	1.19 Completed.
Miscellaneous	0.14
Vellaur Branch.—Estimate Rupees 27,840.	
Earthwork	1.19 Completed.
Masonry	0.96
Miscellaneous	0.13
Anicut.	
Brick-in-chunam	1.2 Completed.
Concrete	0.87
Cutstone dressed	1.03
Do. undressed	0.53
Cut roughstone	0.92 Completed.
Head-sluice	0.92 Completed.
Main Channel	Do.
Branch do. A, B, C, D, F, G, H, L, M, and N ... ..	... ..
Improvements to Polimcottah tank ... ..	... ..
Two culverts of two arches of 12 feet span each in the tenth miles ... ..	... ..
Eleven minor distribution sluices ... ..	... ..
Three irrigation sluices at the head of Branch Channels F, G, and L, and one supply sluice to the Nudoonjary tank and division sluice in the same nearly completed.	... ..
Tunnel in the 95th furlong for Nagarapady channel	Completed.

South Arcot.
Anicut across the Vellaur River at Pelandorai.

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
	Rs.	Rs.	Rs.	Rs.	Rs.	
<i>Tanjore.</i>						
Regulators for the principal branches of the Vennaur River.	2,05,106	.....	2,066	2,066	2,00,942	Distribution sluice in the 92nd furlong in main channel ... 0.73 Masonry fall in 80th do. ... 0.79 Supply sluice to Venkaramari tank... Completed. Two tunnels in Branch Channels C and D ... Do. Masonry fall at Razanderapatam, 48th furlong ... 0.79 Bridge at Vattagoody, 42nd furlong ... 0.87 Do. at Koorokathencherry, 20th furlong ... 0.99 Supply sluice to Razanderapatam tank at the head of Branch Channel A ... Do. to Kooramungalum tank at the head of Branch Channel B. Calingulah at 65th furlong ... 0.54 0.08
<i>Amount debitable to Local Funds.</i>						
Pandavayur bridge 7,950						
Vellayaur do. 6,005	13,955	.....	3,150	3,150	15,237	<i>Dam across the Vennaur at the Vettaur Head.—Estimate Rs. 95,676.</i> <i>Vennaur Sluices.</i> Brick-in-chunam ... 1.00 Stone-in-do. ... 1.00 Shutters ... 0.80 Earthwork ... 1.00 Miscellaneous ... 1.00 <i>Vettaur Sluices.</i> Brick-in-chunam ... 1.00 Stone-in-do. ... 1.00 Shutters ... 1.00 Earthwork ... 1.00 Miscellaneous ... 1.00 <i>Dam across the Pamanyaur and Corayaur Heads.—Estimate Rupees 65,775.</i> Earthwork ... 0.90

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Fixing bench-mark stones along both banks of Coleroon, and incidental expenses connected with the Angunda - Cauvery and Coleroon survey.	1,000	.....	185	185	918	Brick-in-chunam ... 0.95 Cut-stone-in-do. ... 1.77 Shutters ... 0.66 Miscellaneous ... 0.74
						<i>Dam across the Pandavayaur and Vellayaur.—Estimate Rs. 57,610.</i> <i>Pandavayaur Dam.</i> Brick-in-chunam ... 1.00 Cut-stone-in-do. ... 1.90 Shutters ... 1.00 Earthwork ... 1.00 Miscellaneous ... 1.00
						<i>Vellayaur Dam.</i> Brick-in-chunam ... 1.00 Cut-stone-in-do. ... 1.00 Shutters ... 0.90 Earthwork ... 0.98 Miscellaneous ... 0.96
						Expenditure ... 0.918
<i>Tinnevely.</i>						
Stredeviguntum Anicut ...	8,31,600	1,09,590	3,742	3,742	8,39,137	<i>Anicut and Head Works.—Estimate Rupees 2,00,600.</i> Earthwork ... Completed. Masonry ... 0.95 Miscellaneous ... 0.91 <i>Channels and Works south side of river.—Estimate Rupees 2,02,265.</i> Earthwork ... Completed. Masonry ... 0.98 Miscellaneous ... 0.97

* Includes Rupees 2,777 which was erroneously deducted in the last Return.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
<i>Channels and Works north side of river.—Estimate Rupees 3,02,357.</i>						
	Rs.	Rs.	Rs.	Rs.	Rs.	Earthwork Completed. 0-99
						Masonry Completed.
						Miscellaneous Completed.
						<i>Small Channels.—Estimate Rupees 20,000. Excess ... 0-41</i>
						<i>Do. Sluices.— Do. 18,600 0-81</i>
						<i>General Sundries.— Do. 40,925 0-98</i>
						<i>Compensation.— Do. 40,000 0-89</i>

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Statement showing the Nature and Progress of all Preliminary Surveys and Inquiries under prosecution in connection with new Irrigation Projects intended to be carried out from Loan Funds for quarter ended 30th June 1874.

District.	Name of Project.	Particulars of Progress of Investigation.
Ganjam ...	Rooshkoolia Project ...	Papers with Chief Engineer for Irrigation. Revenue details under consideration of Revenue Board.
Do. ...	Vamasadara river or Chicacole Project.	Papers with Chief Engineer for Irrigation.
Godavery ...	Central Delta Project ...	
Kistna ...	Unnamalunkah do. ...	Plans and estimates of irrigation and drainages of Kykalore section, completed. The out-door work of Eastern Delta Project is nearly done. Plans, estimates, etc., are under preparation.
Do. ...	Surveying and Levelling operations.	
Do. ...	Eastern Delta Range ...	
Do. ...	Western do. ...	The plans and estimates of west bank channel and Nizampatam channel subsections have been prepared under instructions from Chief Engineer for Irrigation, and are now with him. The rest are under revision.
Tinnevely ...	Numbiar River Irrigation ...	Preliminary Report is with the Chief Engineer for Irrigation.
	Improvement and extension of irrigation under the Tambrapoorney and its tributaries.	Papanasam Reservoir Project held in abeyance. Cannadien head-sluice foundations partly put in. Melakal head-sluice foundations completed. Plans for other head-sluices under preparation.
Madura ...	Perryaur Project ...	Has been submitted to Government.

No. 663. ORDER THEREON, 27th August 1874, No. 2,425.

IRRIGATION, No. 58.

Account.

ORDERED that the foregoing Statements be forwarded to the Government of India.

(True Extract.)

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,

Joint Secretary to Government.

No. 664. (DOCKET, No. 2,426, dated 27th August 1874.)

COPY of the above forwarded to the Government of India.

(True Extract.)

Lieut.-Colonel, R.E.,

Joint Secretary to Government.

Exd. T. O'Connor.

Spare Copies

Govt. of 1874 Minutes.
PUBLIC WORKS.

To

THE SECRETARY TO THE GOVERNMENT

OF INDIA

Dated August 27th.

Recd.

Encl.

G. O., 27th August 1874, No. 2,425.

AUGUST.

Nos. 653-664

FORWARDING Statement showing the progress of Agricultural Works from Extraordinary Funds, and of the investigations made with new Irrigation Projects for the quarter ended 30th June 1874.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Read the following papers:—

No. 653.	From the District Engineer, Ganjam, dated 30th June 1874.
No. 654.	From do. Godavery „ 23rd July „
No. 655.	From do. do. „ 23rd „ „
No. 656.	From do. Kistna „ 20th „ „
No. 657.	From do. do. „ 17th „ „
No. 658.	From do. Nellore „ 13th „ „
No. 659.	From do. South Arcot „ 18th „ „
No. 660.	From do. Tanjore „ 31st „ „
No. 661.	From do. Tinnevelly „ 18th „ „
No. 662.	From do. do. „ 3rd „ „

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the quarter ended 30th June 1874.

Name of Work.	Amount of Estimate.	Current Year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
Godavery. Extension of irrigation from Eastern Delta.	Rs. 14,00,200	Rs. 1,59,300	Rs. 30,267	Rs. 30,267	Rs. 4,92,500	1. <i>Head Sluice</i> .—Estimate Rupees 17,890. Postponed. Designs for screw gearing to shutters under preparation.
						2. <i>Main Duct</i> .—Estimate Rupees 28,060 ... 0-30. Two-thirds of the 3rd mile, three-fourths of the 4th mile, whole of the 5th mile, three-fourths of the 6th mile, completed to project section. Work now in abeyance.
						3. <i>Cocanada Canal</i> .—Estimate Rupees 1,86,800— Earthwork ... 0-85. Earthwork completed except 2½ miles below Madapad lock, and raising banks in 27th and 28th miles. Masonry ... 0-95 {Locks all completed. Distribution ... do. aqueduct completed. Karpa and Sampara Bodi dividing dams completed. Head-sluiice to do. raised 4 feet high.
						4. <i>Mundapetta Canal</i> .—Estimate Rupees 74,100— Earthwork ... 1-23. Earthwork completed, except two miles below Pasalapudi lock. Masonry ... 0-42. Lock and weir completed. Design for screw gearing for Pasalapudi weir and surplus weir in 11th mile under preparation. Distribution ... 0-03. Matchavaram distribution channel under excavation.
						5. <i>Dank Canal</i> .—Estimate Rupees 2,33,200— Earthwork ... 0-00. Earthwork commenced at head and partially done as far as old Calingulah.

Masonry ... 0-08. Chopella lock foundations laid to level of lower cill and rear, front and side walls raised 4½ feet high. Face work on this lock being laid 2 feet deep in cement of one mortar to one burnt clay. Results very satisfactory.					
6. <i>Coringa Canal</i> .—Estimate Rupees 74,300— Earthwork ... Not commenced. Masonry ... 0-11. Tanumulla under-tunnel completed. Distribution ... 0-04. Wodoor Bodi aqueduct raised to level of springing of arches.					
7. <i>Injeram Canal</i> .—Estimate Rupees 28,050— Earthwork ... 0-60. Raising banks below the lock done, down to 32nd mile. Masonry ... 0-63. Distribution ... Postponed.					
8. <i>Biccavole Drain</i> .—Estimate Rupees 65,000— Earthwork ... 0-61 } End of drain completed. Kykavole Masonry ... 0-76 } drain completed and acting well. Screw gearing being fitted to Biccavole calingulah shutters. Walls of second drop raised 2 feet. The H. W. level of drain during last October was very nearly equal to the project H. W. M.					
9. <i>Tooliabaga Drain</i> .—Estimate Rupees 1,38,100— Earthwork ... 0-53 } Some earthwork done in first five miles Masonry ... 0-90 } of drain. Calingulah completed. Observed H. W. levels for October last vary from 5 to 1-15 above H. W. M. of project for two-thirds of the drain, below that down to its tail it varies from 1-15 to 2-82 above H. W. M. of project at junction with Mattapalem creek.					
10. <i>Takee Main Drain</i> .—Estimate Rupees 2,66,300— Earthwork ... 0-07 } The rains have greatly interfered with Masonry ... 0-69 } the vigorous prosecution of work on Distribution ... Postponed. } this drain. Nothing could be done upon it after the middle of June, the Buntadars having left for their villages. About 4,000 Rupees remained to be paid for work executed up to that date. Calingulah work in progress. Concrete foundations all laid, and rough stone foundations to body wall and wings in progress.					

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
Extension of irrigation from Western Delta.	14,10,000	1,95,000	42,849	42,849	5,40,163	11. <i>Rest-houses</i> .—Estimate Rupees 10,000 ... 0-76. Chintapilly and Bowlishweram Rest-houses completed. Those at Jagannadhapuri and Cotipilly raised to level of caves.
						12. <i>Compensation for lands</i> .—Estimate Rupees 26,800. The measurements for land under the Taluk and Bicavole drains being taken. Those for Tooliabaga already done and register forwarded to Collector.
						13. <i>Sumalesthal Canal</i> .—Estimate Rupees 1,31,200— Earthwork ... 1-16 Masonry ... 0-85
						14. <i>Demararam Escape</i> .—Estimate Rupees 4,200. Wing-walls of Demararam escape raised 2 feet.
						15. <i>Tools and Plant</i> .—Estimate Rupees 86,200.
						1. <i>Head Sluice, Main Canal</i> .—Estimate Rupees 19,560.
						2. <i>Main Canal</i> .—Estimate Rupees 49,000— Earthwork ... 0-19. Trimming banks, etc., finished.
						3. <i>Kotareparra Canal</i> .—Estimate Rupees 33,000. Not commenced.
						4. <i>Narasapur Canal</i> .—Estimate Rupees 2,02,600— Earthwork ... 1-00. Finished. Masonry ... 0-59. Megaloor lock upper sill put and work generally 6 feet above floor. Distribution ... 0-40.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

5. <i>Bank Canal</i> .—Estimate Rupees 1,07,900— Masonry above drains... 0-44.						
6. <i>Venkiah and Weyairu</i> .—Estimate Rupees 11,960— Earthwork ... 0-12. Masonry ... 0-27. Aukutigapad sluice finished except coping to parapets.						
7. <i>Undi Canal</i> .—Estimate Rupees 1,10,700— Earthwork ... 0-73. Strengthening banks between 8th and 16th miles, and excavating head lock channels in progress. Masonry ... 0-31. Undi head lock upper sill put. Turning upper and lower longitudinal culvert arches in progress. Distribution ... 0-10. Bondada channel finished.						
8. <i>Attily Canal</i> .—Estimate Rupees 86,000— Earthwork ... 0-57. Trimming banks above Gunnampad lock in progress. Masonry ... 0-62. Gunnampad lock 6 feet above floor. Distribution ... 0-44. Various sluices and improvements to channels in progress.						
9. <i>Gostanuddy and Velpur</i> .—Estimate Rupees 1,41,060— Earthwork ... 0-21. New cut from Gostanuddy in progress, and banks everywhere being trimmed. Masonry ... 0-19. Head lock 10 feet above floor. Head weir. Crest stones of body wall being put.						
10. <i>Nakkala Drain</i> .—Estimate Rupees 13,200. Not commenced.						
11. <i>Gostanuddy Out-fall and Sluice</i> .—Estimate Rupees 94,000— Earthwork ... 0-07. Making two cuts from Bobanapilly bund to Vempad salt creek finished.						
12. <i>Yanamadura Drain</i> .—Estimate Rupees 28,800— Earthwork ... 0-46. Strengthening banks near Yendagaud in progress.						

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued)

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Ex- penditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
	RS.	RS.	RS.	RS.	RS.	
13. Other Drains.—Estimate Rupees 23,290—						
A.—Bandada and Radroyacodu—						
Earthwork 0 37.						Earthwork on Bandada drain in progress for half a mile above last year's work; only this half a mile will be done this season as work is interfered with by rain.
B.—Caza Drain—						
Earthwork 0 60.						Work for 1½ miles south of Pichale and Indrapattana road finished.
C.—Buggeserem Drain—						
Earthwork 1 00.						Finished.
D.—Minor Drainages—						
Earthwork 0 25.						Raythem drain finished, except trimming tanks.
14. Drain west of Narsapur Canal.—Estimate Rupees 13,320—						
Earthwork 0 80.						
Masonry						Finished.
15. Ellore Canal.—Estimate Rupees 1,43,750.						
15-A. Main Canal.—Estimate Rupees 55,000—						
Earthwork 0 33.						
Masonry 0 36.						Poolia sluice and various new irrigation channels in hand.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

15-B. Mid Level Channel.—Estimate Rupees 64,180—						
Earthwork 0 89.						Finished.
Masonry 0 82.						Drop at 14 miles, and three sluices in hand.
15-C. Low Level Channel.—Estimate Rupees 19,230—						
Earthwork 0 87.						
Masonry 0 79.						One irrigation sluice in hand.
15-D. Pundicodu Drain.—Estimate Rupees 59,530—						
Earthwork 0 89.						
Masonry						Finished.
15-E. Drain from 9½ miles.—Estimate Rupees 24,000—						
Earthwork 0 65.						
Masonry 0 66.						
15-F. Drainage Diversion.—Estimate Rupees 21,700—						
Earthwork 0 73.						
Masonry 0 67.						Drop at 3½ miles finished, except coping of wings and body wall.
16. Rest-houses.—Estimate Rupees 23,200... 0 41.						Rest-house at Chettipett finished. Rest-house at Peravilly nearly finished. Materials under collection for others.
17. Restoring Navigation with Weyairs.—Estimate Rs. 72,500—						
Earthwork 0 85.						Finished.
Masonry 0 90.						
18. Additional Surplus Weir near the head of the Ellore Canal.—Estimate Rupees 14,000—						
Masonry 0 82.						Parapets still to be coped.
19. Tools and Plant.—Estimate Rupees 1,05,360.						

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
<i>Kistna.</i> Improving Masulipatam Section of the Kistna Delta.	RS. 1,87,990	RS. 12,645	RS. 2,312	RS. 2,312	RS. 1,64,985	Widening Pulleru from Pamarru to Koutarum Lock.—Estimate Rupees 17,000. Earthwork 1-00 Widening Pulleru from Marrivada to Pamarru.—Estimate Rupees 31,250. Earthwork 0-99 Sloping banks of Masulipatam Canal from 1st to 4th mile.—Estimate Rupees 10,100. Earthwork 0-73 Enlarging Masulipatam Canal from 4th to 12½ miles.—Estimate Rupees 65,000. Earthwork 0-86 Enlarging Pulleru from Kankipaud Lock to Marrivada.—Estimate Rupees 27,900. Earthwork 0-99 Constructing a Regulating Sluice across Pulleru at Pamarru.—Estimate Rupees 7,000. Masonry 1-00 Constructing a Bridge on Junction Canal near Pamarru.—Estimate Rupees 1,350. Masonry 1-00 Constructing a Catingulak at Veyairu.—Estimate Rupees 5,670. Masonry 1-00

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Widening the head of Masulipatam Canal.	1,13,530	30,000	10,246	10,246	74,188	Iron 1-00 Masonry 1-00 Earthwork 0-85 Masonry 0-15 Retement 0-16 Roads 0-84 Earthwork 0-96 Masonry 1-00 A recovery of about 6,000 Rupees will have to be made and charged to Agricultural Repairs; and application will be made for additional funds to meet the net excess and further expenditure during the year.
Enlarging South Main Canal from Seetanagaram to Dugeralia.	2,76,400	23,254	30,808	30,808	2,70,941	Minor Branches and Sluices.—Estimate Rupees 5,000. Head Sluice and Bridge.—Estimate Rupees 16,267. Masonry 0-99 Earthwork 0-68 Enlarging and Improving Ryves' Channel from the 2nd mile to Pullair near Marrivada.—Estimate Rupees 58,180. Earthwork 0-73 Enlarging and Improving Gudivada Branch of Ryves' Channel.—Estimate Rupees 26,800. Earthwork 0-09 Constructing three accommodation Bridges on Ryves' Branch Channel.—Estimate Rupees 3,780. Masonry 0-65 Constructing Iron Punt.—Estimate Rupees 6,100. Iron 0-50 Minor Branches and Sluices.—Estimate Rupees 5,000. Masonry 0-20

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
Extending Commamore Channel.	Rs. 5,680	.....	Rs.	Rs.	Rs. 5,430	Earthwork and Masonry 0.94
	1,95,770	.....	.....	Recovery.	1,76,508 240	Earthwork... .. Rapid at Duggerulla. ... 0.94
Constructing a Bridge across Commamore Channel at Kolakalore.	8,130	.....	137	137	1,76,263	Revetment... .. 0.94
	16,060	.....	.....	Recovery.	16,035 140	Masonry 0.89
Improvements to the Surrapully Channel.	4,20,060	22,774	7,750	7,750	15,895	Masonry 0.99
					3,86,473	Head Sluice.—Estimate Rupees 18,060 0.72
						Regulating Sluice at the Head of Jaffer Sahib's Channel.—Estimate Rupees 4,720.—1.09 Completed.
						Deepening Surrapully New Cut and improving old Ramareddy Channel.—Estimate Rupees 95,500.
						Earthwork 0.94
						Masonry 0.94 Completed with the exception of
						Rubble pitching 0.70 one irrigation sluice.
						Gravel backing 0.75
						Miscellaneous 1.50
						Surrapully Channel.—Estimate Rupees 1,26,500.
						Earthwork 0.85

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Masonry	...	...	...	...	...	1.04 Completed.
Drainage	...	...	...	...	...	0.95
Miscellaneous	...	...	...	...	...	2.12
Main Reservoir.—Estimate Rupees 1,14,000.						
Earthwork	...	...	...	...	...	1.02
Laterite revetment	...	...	...	...	...	0.82
Gravel backing	...	...	...	...	...	0.80
Masonry	...	...	...	...	...	1.15 Completed.
Miscellaneous	...	...	...	...	...	0.93
Idagali Channel.—Estimate Rupees 33,449.						
Earthwork	...	...	...	...	...	0.90 Nearly completed.
Masonry	...	...	...	...	...	1.19 Completed.
Miscellaneous	...	...	...	...	...	0.96
Vellaur Branch.—Estimate Rupees 27,840.						
Earthwork	...	...	...	...	...	0.13
Masonry	...	...	...	...	...	1.19 Completed.
Miscellaneous	...	...	...	...	...	0.13
Anicut.						
Brick-in-chunam	...	...	...	...	...	1.2 Completed.
Concrete	...	...	...	...	...	0.87
Cutstone dressed	...	...	...	...	...	1.03
Do. undressed	...	...	...	...	...	0.53
Cut roughstone	...	...	...	...	...	0.92 Completed.
Head-sluice	...	...	...	...	...	0.92 Completed.
Main Channel	...	...	...	...	...	1.0
Branch do. A, B, C, D, E, F, G, H, I, M, and N	...	...	...	...	...	1.0
Improvements to Polencottah tank	...	...	...	...	...	1.0
Two culverts of two arches of 12 feet span each in the tenth miles	...	...	...	...	...	1.0
Eleven minor distribution sluices	...	...	...	...	...	1.0
Three irrigation sluices at the head of Branch Channels F, G, and L, and one supply sluice to the Nudonjary tank and division sluice in the same nearly completed.	...	...	...	...	...	1.0
Tunnel in the 95th furlong for Nagarapaudy channel	...	...	...	...	...	1.0 Completed.

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Continued.)

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
	RS.	RS.	RS.	RS.	RS.	
<i>Tanjore.</i>						
Regulators for the principal branches of the Vennar River.	2,03,106	.....	2,066	2,066	2,00,942	Distribution sluice in the 92nd furlong in main channel ... 0.78 Masonry fall in 86th do. ... 0.79 Supply sluice to Venkaramari tank... Completed. Two tunnels in Branch Channels U and D ... Do. Masonry fall at Razanderapatam, 48th furlong ... 0.79 Bridge at Vattagoody, 42nd furlong ... 0.87 Do. at Koorookathencherry, 20th furlong ... 0.99 Supply sluice to Razanderapatam tank at the head of Branch Channel A ... 0.57 Do. to Kooramungalum tank at the head of Branch Channel B. ... 0.54 Calingulah at 65th furlong ... 0.08
<i>Amount debitable to Local Funds.</i>						
Pandavayur bridge 7,950	13,955	.....	3,150	3,150	15,237	<i>Dam across the Vennar at the Vettalur Head.—Estimate Rs. 95,676.</i>
Vellayaur do. 6,005						<i>Vennar Sluices.</i>
						Brick-in-chunam ... 1.00 Stone-in-do. ... 1.00 Shutters ... 0.80 Earthwork ... 1.00 Miscellaneous ... 1.00
						<i>Vettalur Sluices.</i>
						Brick-in-chunam ... 1.00 Stone-in-do. ... 1.00 Shutters ... 1.00 Earthwork ... 1.00 Miscellaneous ... 1.00
						<i>Dam across the Pamanyaur and Corayaur Heads.—Estimate Rupees 65,775.</i>
						Earthwork ... 0.90

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Brick-in-chunam ... 0.95	...	...	...	...	...	...
Cut-stone-in-do. ... 1.77	...	...	...	...	...	...
Shutters ... 0.66	...	...	...	...	...	...
Miscellaneous ... 0.74	...	...	...	...	...	...
<i>Dam across the Pandavayur and Vellayaur.—Estimate Rs. 57,610.</i>						
<i>Pandavayur Dam.</i>						
Brick-in-chunam ... 1.00	...	...	...	...	...	...
Cut-stone-in-do. ... 1.90	...	...	...	...	...	...
Shutters ... 1.00	...	...	...	...	...	...
Earthwork ... 1.00	...	...	...	...	...	...
Miscellaneous ... 1.00	...	...	...	...	...	...
<i>Vellayaur Dam.</i>						
Brick-in-chunam ... 1.00	...	...	...	...	...	...
Cut-stone-in-do. ... 1.00	...	...	...	...	...	...
Shutters ... 0.90	...	...	...	...	...	...
Earthwork ... 0.98	...	...	...	...	...	...
Miscellaneous ... 0.96	...	...	...	...	...	...
Expenditure ... 918	185	185	185	185	918	0.918
<i>Anicut and Head Works.—Estimate Rupees 2,00,600.</i>						
Earthwork ... Completed.	8,39,137	3,742	3,742	3,742	8,39,137	Completed.
Masonry ... 0.95						0.95
Miscellaneous ... 0.91						0.91
<i>Channels and Works south side of river.—Estimate Rupees 2,02,265.</i>						
Earthwork ... Completed.						Completed.
Masonry ... 0.98						0.98
Miscellaneous ... 0.97						0.97

* Includes Rupees 2,777 which was erroneously deducted in the last Return.

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant, etc.—(Concluded.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct account showing the state to which the works have been advanced up to date.
			During the quarter.	During the current year.		
Channels and Works north side of river.—Estimate Rupees 3,02,357.						
						Earthwork Completed.
						Masonry 0 99
						Miscellaneous Completed.
Small Channels.—Estimate Rupees 20,000. Excess ... 0-41						
						Do. Sluices.— Do. 18,600 0-81
						General Sundries.— Do. 40,925 0-98
						Compensation.— Do. 40,000 0-89

Proceedings of the Madras Government, Public Works Department,
27th August 1874.

Statement showing the Nature and Progress of all Preliminary Surveys and Inquiries under prosecution in connection with new Irrigation Projects intended to be carried out from Loan Funds for quarter ended 30th June 1874.

District.	Name of Project.	Particulars of Progress of Investigation.
Ganjam ...	Rooshkoolia Project ...	Papers with Chief Engineer for Irrigation. Revenue details under consideration of Revenue Board.
Do. ...	Vamasadara river or Chicacole Project.	Papers with Chief Engineer for Irrigation.
Godavery ...	Central Delta Project ...	
Kistna ...	Unnamalunkah do. ...	Plans and estimates of irrigation and drainages of Kykalore section, completed. The out-door work of Eastern Delta Project is nearly done. Plans, estimates, etc., are under preparation.
Do. ...	Surveying and Levelling operations.	
Do. ...	Eastern Delta Range ...	
Do. ...	Western do. ...	The plans and estimates of west bank channel and Nizampatam channel subsections have been prepared under instructions from Chief Engineer for Irrigation, and are now with him. The rest are under revision.
Tinnevelly ...	Numbiar River Irrigation ...	Preliminary Report is with the Chief Engineer for Irrigation.
	Improvement and extension of irrigation under the Tambrapoorney and its tributaries.	Papanasam Reservoir Project held in abeyance. Cannadien head-sluice foundations partly put in. Melakal head-sluice foundations completed. Plans for other head-sluices under preparation.
Madura ...	Perryaur Project ...	Has been submitted to Government.

No. 663. ORDER THEREON, 27th August 1874, No. 2,425.

IRRIGATION, No. 58.
Account.

ORDERED that the foregoing Statements be forwarded to the Government of India.

(True Extract.)

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
Joint Secretary to Government.

To District Engineers concerned.
To the Chief Engineer for Irrigation.

Exd. T. O'Connor.
Spare Copies

227

I Read the following papers.

From the District Engineer Sanjam 27 30 June 1874

do	.	.	.	Godavery 27 23 July
do	.	.	.	do 27 do
do	.	.	.	Kistna 27 20 do
do	.	.	.	do 27 17 do
do	.	.	.	Nellare 27 18 do
do	.	.	.	South Arcot 27 18 do
do	.	.	.	Tanjore 27 21 do
do	.	.	.	Simunelby 27 18 do
do	.	.	.	do 27 22 do

2425

Order thereon

Obrigation n°
Account

Ordered that the
aforesaid statements
be forwarded to the
Government of India

Adm

2425

Copy of the above
is forwarded to the
Govt of India

Orders concerned
being sent for
sign & 1. Copies despatched 3/9/76

10 L. Copies despatched 3/9/76.

Govt. of 1874 Madras.
PUBLIC WORKS.

To
Dist. Engrs. General
Secy. Govt. of India

Dated

Recd.

Encl.

G. O. 27 Aug 74 No. 2425-
2426

No. 653-664.

Statement showing the
progress of Agricultural
to form Extraordinary
also & of the investigations
de with new crops
also to be carried
from Loan funds for
No. enclosed 30- June 74
is to be forwarded
- Secy. of Agric.

653-654