(1) பக்கங்களின் எண்ணிக்கை 10

(2) புதுக்கித் திருப்பிய நாள் நவம்பர் 89

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

துறை

அரசாணை எண். —
மு. கோப்புத் தாள் எண். 1711(எ)

அச்சகம்
பலவகை

நாள் : 19-6-1990

198 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

ஆவண. கா-1—18,000—15-6-87.

1711/1

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following paper :—

No. 58 D.

MEMORANDUM.

Read—the following :—

I CIRCLE.

LIST No. 1.—Statement showing the Irrigation and connected works available in each district for the employment of famine labor during 1890-91.

District.	Name of work.	Amount of Estimate.			Number of coolies that can be employed.	Probable time required to complete earthworks.	Remarks showing the scope of project.
		Earthworks.	Other works.	Total.			
		Rs.	Rs.	Rs.			
Ganjam.	Tekkali-Anantagiri road ..	13,500	..	..	5,000	12 months.	This is the work left incomplete at the end of the last famine. The work will probably be completed by Local funds.
	Battily road in the Parlákimedi taluk.	6,000	..	..	8,000	Do.	The road may be completed.
	Ichápur-Jarada road in the Berhampore taluk.	*17,500	..	..	23,000	Do.	* Balance of estimates after last famine.
	Kallikót-Boirani road in the Berhampore taluk.	*32,000	..	..	42,500	Do.	

LIST No. 2.—Statement showing the Irrigation and connected works which may be made available in each district for the employment of famine labor.

District.	Name of work.	Amount of Estimate.			Number of coolies that can be employed.	Probable time required to complete earthworks.	Remarks showing the scope of project.
		Earthworks.	Other works.	Total.			
		Nil.					

Submitted to the Chief Engineer, Public Works Department, with reference to paragraph 1343-B of the Public Works Code.

(Signed) J. D. GRANT,
Superintending Engineer, I Circle.

24th February 1890.

Letter from the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, General Branch, dated Madras, 8th March 1890, No. 170 :—

With reference to G.O., No. 472 W., dated 10th February 1888, I have the honor to forward herewith a statement showing quantities of earthwork at present available for execution by famine labor in certain districts of this Presidency.

2. Where a line traverses more than one district, the quantities have been distributed between the districts at the average mileage rate for the whole line, so that the figures for each district will not be strictly accurate, although the totals will represent the quantities shown in the estimate for each line.

3. In addition to the earthwork, employment for a certain number of persons could be found in the collection of ballast, but as the quantity of this work which could be usefully done must depend on local circumstances it is not possible to form an estimate thereof.

ENCLOSURE.

QUANTITIES of earthwork available for execution by famine labor in various districts of the Madras Presidency.

District.	Name of line.	Miles.	Cubic yards per mile.	Total.	Total in each district.
Malabar	Pálghat-Dindigul	14	33,600	470,400	470,400
Coimbatore	Do.	42	33,600	1,411,200	1,411,200
Madura	Do.	44	33,600	1,478,400	4,912,533
Do.	Madura-Pámban	91½	37,600	3,434,133	
Salem	Porto Novo-Salem	48½	29,400	1,425,900	1,425,900
South Arcot	Do.	68	29,400	1,999,200	1,999,200
Anantapur	Hindupur extension ..	45 *	32,400	1,458,000	1,458,000

* About 4 miles completed in 1886. The portion between Guntakal and Dharmavaram is now under construction as a State Railway.

MADRAS,
10th March 1890.

(Signed) SIDNEY SMITH, Major, R.E.,
for Consulting Engineer for Railways.

LIST No. 1.—Statement showing the Irrigation and connected works available in each district for the employment of famine labor.

District.	Name of work.	Amount of Estimates remaining to be worked out. Earthworks.	Other works.	Total.	Number of coolies that can be employed.	Probable time required to complete.	Remarks.
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		Months.	
Ganjam ..	1. Ganjam-Gopálpur canal.	2,04,630	41,800	2,46,430	8,000	5	Estimates sanctioned by the Secretary of State. Works commenced in January 1889 to find employment for famine labor. Rs. 50,370 were spent on earthwork to end of September 1889 and work stopped at the end of November 1889 on the cessation of famine.
	2. Rushikulya project.	10,13,730	10,58,549	20,72,279	10,000	20	Estimates sanctioned by the Secretary of State and work in progress. The sanctioned rates being insufficient and certain alterations being found necessary in the designs for works, revised estimates have been prepared and will be submitted for sanction as soon as the revised forecast statements of revenue and expenditure have been returned by the Collector duly approved and countersigned.

List No. 1.—Statement showing the Irrigation and connected works available in each district for the employment of famine labor—*cont.*

District.	Name of work.	Amount of Estimates remaining to be worked out. Earthworks.	Other works.	Total.	Number of coolies that can be employed.	Probable time required to complete.	Remarks.
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		Months.	
Godávari ..	3. Vainateyam left bank.	16,400	..	16,400	1,000	3	G.O., No. 608 I., dated 6th December 1889.
	4. Gowtami right bank.	17,300	..	17,300	1,000	3½	G.O., No. 444 I., dated 13th September 1889.
Anantapur.	5. Roddam project.	48,280	54,940	1,03,220	2,400	4	This project provides for an anicut across the Pennér to supply Roddam large tank. Preliminary investigation of this project was made by Mr. Garrett when he was in charge of the "C" Project division. The estimates for masonry works may be allowed to stand, but the channel portion will require revision. The Superintending Engineer, III Circle, estimates the net return at a little over 2 per cent. If required, it could be submitted in a complete shape in three months.
Coimbatore.	6. Calingaroyan channel improvements.	1,60,800	1,26,000	2,86,800	3,500	9	The proposal to improve bed-fall, provide efficient sluices and reduce the existing number of sluices, and extend the channel about 33 miles so as to bring about 15,000 acres of land under wet cultivation, including 5,000 acres now irrigated by the Pugalur channel. Estimates were submitted for the sanction of the Government of India (*vide* G.O., No. 332 I., dated 8th June 1888) but returned for revision, which it is hoped will soon be ready.
	7. Do. do. extension.	2,44,800	1,35,400	3,80,200	3,800	13	
	8. Bhavání reservoir project.	16,00,000	28,50,000	44,50,000	4,000	30	The proposal is to form a reservoir by damming the Bhavání river; from this reservoir, channels will be led commanding all the land now irrigated by the channels from the Satyamangalam and Bhavání anicuts and a considerable area in addition. The reservoir would also be useful in supplementing the supply to the Cauvery so as to prevent loss in the Tanjore delta during the interval between the two monsoons. Project partially worked out; left so that it can be taken up without delay when necessity arises.
Salem ..	9. Marandahally project.	1,03,000	2,07,000	3,10,000	3,500	6	Plans and estimates received. The project is not a productive one and it is useless to submit it for sanction at the present time; it might be useful as a relief work in time of famine. A minor scheme has now been received. It is under consideration.
	10. Vaniar reservoir.	5,54,000	5,06,000	10,60,000	3,700	30	The site proposed for this reservoir is situated at the foot of the Shevaroy Hills in Uttankarai taluk, Salem district. It is estimated that the proposed reservoir will irrigate about 3,700 acres. The project is not likely to prove remunerative, but it may be put in hand if the necessity for famine relief arises. Plans and estimates have been prepared, but have not been forwarded for sanction.

List No. 1.—Statement showing the Irrigation and connected works available in each district for the employment of famine labor—*cont.*

District.	Name of work.	Amount of Estimates remaining to be worked out.			Number of coolies that can be employed.	Probable time required to complete.	Remarks.
		Earthworks.	Other works.	Total.			
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		months.	
Tanjore and South Arcot.	11. Coleroon embankment improvements.	5,67,353	5,69,712	11,37,065	18,900	6	Plans and estimates prepared by the Executive Engineer, Mr. Lobb, are under consideration by the Superintending Engineer. The work is well suited for famine labor.
Trichinopoly.	12. Coleroon left bank from the bridge to Nundiyar anicut.	47,000	19,970	66,970	1,600	9	Estimate of Rs. 89,500 sanctioned in G.O., No. 541 L., of 3rd September 1887; work is now being done on contract.
	13. Cauvery right bank from Cauvery bridge at Trichinopoly to the old Vennár head, raising and strengthening.	6,820	..	6,820	400	3	G.O., No. 72 L., dated 7th February 1890.
Tinnevelly.	14. Vasudevanallur-Periyakulam tank, improving.	1,830	8,440	10,270	240	1½	G.O., No. 399 L., dated 22nd August 1889.
	15. Pudukóta-Periyakulam, improving.	5,310	2,868	8,178	700	1½	Approximate estimate.
	16. Sátur Nemmani-Periyakulam, improving.	5,000	6,580	11,580	700	1½	G.O., No. 1 L., of 6th January 1890.
	17. Sátur-Melamadai-Periyakulam, improving.	4,000	6,000	10,000	800	1	Plans and estimates have been prepared.
	18. Korampallam tank, Upper odai cutting.	10,708	..	10,708	800	3	Estimate sent to Collector for countersignature.
	19. Pallikotai channel, improving.	11,000	16,000	27,000	700	3	Estimate under preparation.
	20. Vilvarayankulam, improving.	1,150	6,310	7,460	200	1	No. 2 Tank Restoration Party has been directed to investigate the requirements of this tank.
	21. Vadakarai-Periyakulam, improving.	2,406	3,664	6,070	200	2	Estimate received.
	22. Tambrapárni river, left bank, below Srivaikuntham anicut diversion.	16,000	..	16,000	800	4	G.O., No. 574 L., of 23rd November 1889.
	23. Tambrapárni river, left bank, closing Sivaramangalam gap.	3,980	..	3,980	250	3	Estimate received; will be sanctioned shortly.
Madura ..	24. Periyár project.	4,98,000	20,51,000	25,49,000	4,000	24 months in 3 seasons of 8 months each.	In progress.

N.B.—The number of coolies entered in column 6 has been arrived at by dividing the amounts of estimates for earthwork by five times the number of months in column 7, assuming an average rate of Rs. 5 a month for each cooly. The results have been rounded off.

14th April 1890.

(Signed) H. E. CLERK,
for Chief Engr. for Irrigation.

List No. 2.—Statement showing the Irrigation and connected works which may be made available in each district for the employment of famine labor.

District.	Name of work.	Probable amount of Estimates.			Number of coolies that can be employed.	Probable time required to complete.	Remarks.
		Earthworks.	Other works.	Total.			
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		months.	
Ganjam ..	1. Repairs to tanks and channels in the Chicacole taluk.	15,000	..	15,000	700	6	
	2. Repairing tanks and channels in the Parlákimedi estate.	10,600	..	10,600	500	6	There are 106 irrigation works in this estate which is now under the Court of Wards.
	3. Bahuda river embankment.	..	..	..	500	3	
	4. Mahánadi river embankment.	..	..	..	1,000	3	
	5. Irrigation works in estates.	..	..	..	1,000	4	
Vizagapatam	6. Pálkonda irrigation works, river embankments.	14,000	..	14,000	1,000	3	
Godávari ..	7. Canal from Sámalkót towards Tuni (37 miles long).	4,00,000	..	4,00,000	10,000	8	The project was partially investigated by the "A" Project division and further investigation was stopped on the abolition of that division. The canal will have to cross the Yelleru river by a weir with floodgates on either side of the river.
	8. Anumalanka project channels.	..	..	9,00,000	7,000	8	The number of coolies entered is exclusive of the great reservoir, which, if carried on, would have to be constructed with greater care and skill than could be expected from famine labor. This project comprises the construction of a tank or reservoir with storage capacity, 4,420 millions of cubic feet, length 7½ miles, greatest width 4½ miles, and area 9½ square miles, near the ruined village of Anumalanka in the Yernagúdem taluk. It is 6 miles north of Nallacheri, a large village on the trunk road between Ellore and Rajahmundry. The site is feverish in wet weather. It will be supplied from the Yerracalva, a perennial river, which gets its principal supply from the south-west monsoon. It has been suggested that the reservoir will act as a flood moderator to the drainage of the Yerracalva, which enters the western section of the Godávari delta under the Nundamur aqueduct at the head of the Ellore canal and has several times endangered the safety of some of the delta canals. The reservoir is intended to irrigate 45,000 acres. The estimates for the project, which were prepared by Captain Dorward, R.E., in 1873, require revision.
	9. Widening all Godávari river embankments to fit them for roads.	..	..	..	13,000	8	No estimates have been prepared.
	10. Bhadráchalam boat canal.	2,89,150	1,66,150	4,55,300	7,200	8	In 1878 an estimate was sanctioned for this canal and in 1882 an alternative line was investigated, but the execution of work was condemned on either line except as a relief work in case of famine in the Bhadráchalam and Rékapalle taluks.

List No. 2.—Statement showing the Irrigation and connected works which may be made available in each district for the employment of famine labor—*cont.*

District.	Name of work.	Probable amount of Estimates.			Number of coolies that can be employed.	Probable time required to complete.	Remarks.
		Earthworks.	Other works.	Total.			
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		MONTHS.	
Anantapur..	11. Bookacherla project.	13,98,560	1,96,440	15,95,000	12,000	24	This project is for feeding the Bookacherla, Singanamalla and Anantapur tanks from the Pennér river. This project needs revision; it is thought it is far from being one likely, even if practicable, to give any return to speak of.
	12. Potalakonta project.	12,000	4,000	16,000	600	4	To store water for irrigating 600 acres of land partially investigated prior to 1877 and now under revision.
Cuddapah ..	13. Suggaliar project.	2,59,290	2,89,840	5,49,130	4,300	12	To supply Porumamilla and Badvél tanks from an anicut across the Suggaliar. Plans and estimates have been prepared but will require considerable revision. The project may possibly, it is thought, be a paying one.
	14. Kanchalammah tank.	..	..	..	..	..	Ruined tank. Under investigation.
	15. Patnam Rangarayu tank.						
	16. Chadavaddi Vontimetta tank.						
	17. Guliumpalli tank.						
Kurnool ..	18. Yelgodi project ..	..	..	..	..	..	Being investigated. These are branch channels from the Kurnool-Cuddapah canal.
	19. Maidkoor project.						
	20. Tongadancha tank diversion.	36,959	17,941	54,900	1,200	6	During the prevalence of westerly winds, which are very violent, the waves stop traffic and endanger the banks; serious breaches have occurred. It is therefore proposed to make a new channel from below the Ballavaram bridge at 59 miles 33 chains to above the drainage culvert at 61 miles. Estimates have been prepared but require revision. The work is suitable for famine relief.
	21. Márkápur tank ..	..	..	..	..	..	Special establishment wanted to investigate these.
	22. Duvvalair project..						
	23. Veldurty tank ..						
Salem ..	24. Krishnagiri reservoir.	7,80,000	22,20,000	30,00,000	3,700	42	This project is a scheme to extend irrigation in the Krishnagiri taluk by means of a large reservoir to be supplied from the Pennér. A preliminary report was made and the project was roughly estimated to yield a return of 5 per cent. on direct charges by irrigating 50,000 acres. The preparation of detailed plans and estimates was authorized but no progress has been made as the "B" Project division was abolished.
	25. Goodamally reservoir.	1,50,000	2,00,000	3,50,000	3,750	8	The site selected is on the Swathanadi river, a short distance above the village of Goodamally, Attúr taluk. At the site proposed for the dam, the river drains 150 square miles. Site examined and favorably reported on in 1878; nothing done since.

List No. 2.—Statement showing the Irrigation and connected works which may be made available in each district for the employment of famine labor—*cont.*

District.	Name of work.	Probable amount of Estimates.			Number of coolies that can be employed.	Probable time required to complete.	Remarks.
		Earthworks.	Other works.	Total.			
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		MONTHS.	
Salem—*cont.*	26. Malapady tank restoration.	44,000	23,000	67,000	2,200	4	This tank was ruined a very long time ago. It was inspected early in 1875 and its circumstances ascertained and it was considered that Mr. Blacker's project for its restoration, the only one it is believed in existence, required to be recast. The ground which this tank, if restored, would occupy is much of it irrigated from the river and most of the remainder is under dry cultivation. This project was examined and set aside some years ago as unremunerative.
	27. Badatalog project.	38,000	75,000	1,13,000	1,500	5	This project provides for the enlargement of the tank from a capacity of 4·815 millions of cubic yards to 16¾ millions and for supplementing its supply from a drainage basin of between 20 and 28 square miles by cutting a supply channel, 11¼ miles in length, from the Kurumbapilly river, which drains 650 square miles of country; also of constructing distributary channels under the tank. The increase of revenue was estimated at Rs. 11,000 per annum. This project was examined and set aside as it was considered unremunerative.
Coimbatore..	28. Calinjinadi channel extension.	33,000	67,000	1,00,000	3,300	2	The proposal is to extend the channel to irrigate more lands and to also improve its alignment.
Chingleput..	29. Kortalyár project.	1,07,359	70,501	1,77,860	3,000	8	This project provides for an embankment 3,700 yards long on right bank and 500 yards long on left bank to prevent the river, when in high flood, overflowing its banks, destroying crops and breaching Local Fund roads; an estimate was prepared in 1886 based on surveys and levels taken in 1877, but fresh surveys and levels were ordered to be taken for preparation of revised estimates.
	30. Vyalore project..	14,000	14,000	28,000	700	4	Digging an irrigation channel from Kortalyár river to supply the tanks of which Vyalore tank is the terminal one. The surveys and levels have been lately completed, but the estimates are not yet ready.
	31. Uttramerur tank channel.	20,000	30,000	50,000	1,500	3	To be investigated.
	32. Náráyanavaram river embankments and irrigation extension.	1,71,762	62,348	2,34,810	4,000	8	In 1869-70, an Assistant Engineer was employed to investigate the capabilities of this river. The water-supply was found precarious and none of the projects proposed in connection with it were likely to be remunerative. The projects were therefore laid aside until some officer might be available to see whether any alternative arrangements were feasible. Extension and improvement of

List No. 2.—Statement showing the Irrigation and connected works which may be made available in each district for the employment of famine labor—*cont.*

District.	Name of work.	Probable amount of Estimates.			Number of coolies that can be employed.	Probable time required to complete.	Remarks.
		Earth-works.	Other works.	Total.			
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		MONTHS.	
							irrigation of land in the Nárá-yanavaram valley extending over 200 square miles may be found feasible. It is necessary to prevent this river from flooding as in October 1888.
Chingleput —*cont.*	33. Tennari tank project.	10,000	10,000	20,000	1,000	2	The project to improve the existing distributary channels requires to be investigated.
	34. Kuvam tank improvements.	10,000	10,000	20,000	1,000	2	To be investigated.
	35. Edaimichi channel improvements.	30,000	30,000	60,000	2,000	3	
	36. Pálár flood bank improvements.	20,000	9,600	29,600	2,000	2	
North Arcot.	37. Kalavai main channel, Kukundi branch.	29,000	16,500	45,500	1,000	6	The channel is about 10 miles long and connected with the Pálár anicut system. A branch channel is required for extension of irrigation.
	38. Pálár anicut channels. Removing deposit of sand at head.	..	..	..	2,000	7	The silt which is annually removed from the channels is deposited on high banks at the head of the channels. The proposal is to remove it to the river bed.
	39. Poincy anicut channels. Removing deposit of sand at head.	..	..	..	1,000	6	
	40. Rajakal channel, clearing prickly-pear.	..	4,000	4,000	200	4	The channel banks are now impassable.
	41. Anatangal tank group, repairs.	15,335	9,780	25,115	500	6	Ordinary repairs.
	42. Sangarambadi tank group, repairs.	17,470	4,620	22,090	600	6	
	43. Supply channel from the Cheyár dright bank above the Elathar anicut to supply Pullur and 14 other tanks.	20,000	10,000	30,000	500	8	To supply this channel, the anicut will have to be raised by 4 feet.
	44. Manjalar embanking.	5,000	2,000	7,000	200	6	This hill stream supplies the Pálár tank during floods. Water spills over the bank where it is low. To prevent this, the bank should be raised on both sides where necessary.
	45. Channel from Tholapadu to Kulathur tank.	1,500	..	1,500	100	3	To supply tanks.
	46. Channel from Chengodu Vellary to Thatchangal tank.	500	..	500	50	2	
South Arcot.	47. Gudilam-Athur anicut project.	..	..	..	3,000	3	This is a small project for which surveys and levels were taken some years ago. The estimate was returned to the District Engineer in 1873, but nothing has been done since.
	48. Second anicut across the Ponniár near Pattambakam.	..	..	..	500	16	For the supply of tanks on the north bank of the Ponniár below site of the proposed anicut. The plans and estimates prepared in 1871 require revision.

List No. 2.—Statement showing the Irrigation and connected works which may be made available in each district for the employment of famine labor—*cont.*

District.	Name of work.	Probable amount of Estimates.			Number of coolies that can be employed.	Probable time required to complete.	Remarks.
		Earth-works.	Other works.	Total.			
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		MONTHS.	
South Arcot —*cont.*	49. Reddikuppam anicut project.	..	..	..	500	4	The project was investigated in 1870-71 for constructing an anicut across the Periyár or Varahanady for the supply of about 12 villages and is now being again looked into.
	50. Channels from the Ponniár to Villupuram.	..	..	..	500	8	The channels are intended for the better supply of tanks in the Villupuram taluk.
	51. Pombay channels.	15,000	10,000	25,000	500	6	Estimate of Rs. 25,200 for clearing and widening the channel and raising its banks sanctioned in G.O., No. 815 I., of 9th October 1883. The estimate is under revision.
	52. Vathanur channel project.	..	..	..	..	..	The channel was excavated many years ago to supply six tanks whose total ayacut is 1,553 acres and assessment Rs. 8,809. The length of the channel is 9 miles and it branches from the Pombay river three-fourths of a mile east of trunk road No. 8. The channel is much silted and very irregular. It is therefore proposed to improve the channel.
	53. Pallagacherry anicut project.	..	..	..	..	..	Levels taken and plans prepared, both incompletely. The project is divided into two parts, the first comprises an anicut over the Trimaneemoothanady, with two main channels, one on the north bank 7½ miles long supplying six tanks, another on south bank 3½ miles in length for direct irrigation, there being no tanks or other means of supply. The second part of the project is the extension of the channel on the north bank 7½ miles long to supply 8 tanks, bringing under cultivation 1,000 cawnies of punjah and waste land which will yield a revenue of Rs. 5,000, but the extension is expected to be very expensive and quite unremunerative — see P.M.G., No. 2418, dated 2nd October 1873.
	54. Yenthal anicut project.	..	..	..	..	..	The project was ordered to be carried out by a palaysgar—*vide* Proceedings of Board of Revenue, No. 113, of 4th February 1888. This project is for constructing an anicut across the Mayuryadi, a minor tributary of the Vellár for supplying the tank of the Yenthal village belonging to the palayagar. An estimate of Rs. 17,250 for constructing the anicut and digging a new channel from it to the tank was prepared.
	55. Extension of Vriddháchalam anicut channel.	..	..	..	..	..	Surveys and levels, plans and estimates prepared but considered unreliable. For the improvement of the northern main channel for supply of water to six more villages.

List No. 2.—Statement showing the Irrigation and connected works which may be made available in each district for the employment of famine labor—*cont.*

District.	Name of work.	Probable amount of Estimates.			Number of coolies that can be employed.	Probable time required to complete.	Remarks.
		Earthworks.	Other works.	Total.			
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.		Months.	
South Arcot —*cont.*	56. Restoration of the Nandan voikal from the Thurinjalar anicut.	..	..	..	..	..	The Nandan voikal received its supply by the diverting of the waters of the Thurinjalar river at a place about half a mile of Tindivanam - Tiruvannámalai road. It is a very old channel and much silted and overgrown with jungle scrub, &c. It is proposed to restore it for the supply of water to certain tanks.
	57. Buckingham canal, Thambakam to Kattukuppam in the French territory between 16¾ and 19½ miles.	4,16,022	1,47,200	5,63,222	20,800	4	The line was surveyed and estimated for before 1879. The plans and estimates require to be checked and put into shape. The canal will, it is reported, be an excellent famine work.
Trichinopoly	58. Augunda Cauvery right bank from Amarávati junction to 11¼ mile. Raising the —.	20,000	6,000	26,000	1,000	4	
	59. Wyacondan channel. Clearing the bed and raising the bank, &c., of the —.	20,000	..	20,000	1,000	4	Levels, &c., are being taken.
	60. Nundyar channel. —Extending the—.	20,000	..	20,000	1,000	4	
	61. Ponnéri leading channel. Excavating the —.	8,555	..	8,555	850	2	Estimate to be revised and work will have to be carried out by the Revenue Department from Irrigation Cess fund.
Tinnevelly.	62. Tiruchendur drainage channel clearing.	4,000	1,000	5,000	600	3	
	63. Otápidaram-Periyakulam new supply channel cutting.	15,000	15,000	30,000	1,600	5	The work will be given to the tank restoration scheme for investigation when the party is moved to the neighbourhood.
	64. Támbraparni river widening.	89,000	..	89,000	3,120	3	The work is needed to prevent scour along right bank above Athúr in 12th mile below Srivaikuntham anicut.
	65. Kollangundum-Periyakulam, improving.	1,500	2,500	4,000	175	3	
	66. Elandavakondan old supply channel, improving.	1,500	..	1,500	150	2	
Tanjore ..	67. Vettár. Straightening the course of the —.	95,600	27,000	1,22,600	3,200	6	It allows for earthwork for straightening the river from Tiruválúr to the sea.
	68. Corayaur. Straightening the course of the —.	95,600	27,000	1,22,600	3,200	6	Rough estimate. River not yet surveyed.

N.B.—The number of coolies entered in column 6 has been arrived at by dividing the amounts of estimates for earthwork by five times the number of months in column 7, assuming an average rate of Rs. 5 a month for each cooly. The results have been rounded off.

No. 15 W.

Forwarded to the Joint Secretary to Government, Public Works Department, General Branch, with reference to G.O., No. 472 W., dated 10th February 1888.

CHEPAK, (Signed) H. E. CLERK,
14th April 1890. *for* Chief Engr. for Irrigation.

Forwarded to the Revenue Department with reference to G.O., dated 10th February 1888, No. 472 W., Public Works.

2. The returns under "Buildings and Roads," received from Superintending Engineers, other than the Superintending Engineer, I Circle, are *nil*.

OOTACAMUND, (Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
30th April 1890. Ag. Joint Secretary to Govt., P.W.D.

To the Revenue Department, with three currents in original.

ORDER—dated 20th May 1890, No. 348, Revenue.

Miscellaneous.

Ordered that the lists of Professional Agency works received with the memorandum read above be forwarded to the Government of India.

(True Extract.)

Secretary to Government.

171/6

To the Commissioner of Revenue Settlement, Land Records and Agriculture.
" the Local and Municipal Department.
" the Public Works Department.

Exd A. D. Xavier.

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G.O., 20th May 1890, No. 348.

SECRETARY TO GOVERNMENT
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P.W. CENTRAL MADRAS

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Ordering that lists of Professional Agency works suitable for — be forwarded to the Government of India.

Ch. E. 10.11
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