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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. / B.P.—No.	2657	Press / Mis.	Original
Dated	17-9-	4874 -195	

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Proceedings of the Madras Government, Public Works Department, 17th September 1874.

No. 368. Read the following Proceedings of the Board of Revenue, dated 20th August 1874, No. 2,323:—

ABSTRACT.—*Public Works*—in Nellore District, in 1873-74.—Collector's report on — submitted to Government, with Board's recommendation that establishment required for surveying land irrigable under tank in Griddalore may be sanctioned.

No. 369. ORDER THEREON, 17th September 1874, No. 2,651.

IRRIGATION, No. 47.

COMMUNICATED to the Chief Engineer for Irrigation for such action as may be advisable with reference to the Griddalore Tank.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Chief Engineer for Irrigation.
" District Engineer, Nellore.
" Revenue Department.

Ex'l. S. T. Austin.
Spare Copies

the mileage of the
roads in Kollam
District.

—

Enclosure in letter
to PD dt 25.5.74
No. 1169.

PG. dt 17 Sept/74
In B No: 368
Secy (Works) 3187/74

* PW 5534/74.
+ G.O. No 2651-17-9-74

Name of Road	Total length in miles	Number of miles which have been maintained in good order during the year	Number of miles of road completed during the year	Number of miles under construction	Number of miles not yet commenced	Remarks.
Great Northern Road from Madras to Bengal frontier	175½	158½	..	17	..	Of the 17 miles under construction, on 6 miles only earth work done; on the rest (11) ~ metalling also in progress
Road from Polapalem on sea coast via Singarayakonda to junction with the Kottapatam and Cumbum road near the Venulapad Pass	60	55	..	5	..	All five miles are under construction; masonry completed very little more remains to complete the line
Road from Kanigiri to Podili:	11½	11½	1	..	..	
Road from the Port of Kottapatam to Cumbum in Kurnool	72	66	..	..	6	The last 6 miles of this road need to be constructed. There is no construction Estimate.
Road from the great Northern Road at the Mondegonda river via Addanki to the Kistna frontier	28	23	..	5	..	All five miles are under construction simultaneously; one mile is almost completed, which embraces the bulk of the Estimate for causeway &c.
Road from Tettu on great Northern Road to Ramapatam	3½	3½	..	..	..	In excellent order.
Salt Road from Ekkipalu to ~ Vinakuni Nattu near Beeramgunta	5¼	..	..	..	..	Not made yet. No grant.
Road from Kistnapatam via ~ Nellore to Dornal pass to Cuddapah.						
Cart from Kistnapatam to Nellore	17	17	..	..	3	Portion of 15, 16 and 17 miles are not metalled, but are opened for traffic
Do from Nellore to Dornal pass	61	50	..	5	..	
Road from Rapur Ghat to Gudur	25	22	..	1	2	
Road from Nellore to Somasuaram	50	44½	1	..	..	

Statement shewing the Mileage of Roads in the Nellore District for 1873-74.

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Name of Road	Total length in miles	Number of miles which have been maintained in good order during the year	Number of miles of Road completed during the year	Number of miles under construction	Number of miles not yet commenced	Remarks.
Road from Manubole on great Northern Road to Codalakoor on the Nellore and Somesvaram Road.	16	16	"	"	"	
Road from Saugam to Haligiri	18	18	"	"	"	
Road from Kavali to Udayagiri	49	48 1/2	1/2	"	"	
Road from Dornal Road to Udayagiri	19	19	"	"	"	
Road from Nellorepalem to Atmakur	3	3	"	"	"	
Road from Dugarazupatam to salt store yard	2	2	"	"	"	
Road from Gudur on great Northern Road to Venkatagherry	19	19	"	"	"	
Road from Gudur to Dagarazupatam	20	20	"	"	"	
Branch Road from great Northern road to Naidupett	1	1	"	"	"	
Do. Do to Tada	1	1	"	"	"	
Road from Naidupett via Kalastry to Tripati	5 1/8	"	"	"	"	
Road from 25th Mile of Venkatagiri to Tripati Road	3	"	"	"	"	
Road from Nellore to Rodur	13 1/2	8 1/4	3/4	3/4	3 3/4	Road metalled upto 9th mile and gravel carted over 3/4 ths of 10th mile
Do from Do to Myspadu	14 1/2	9 1/4	3/4	3/4	3 3/4	Road metalled upto 10th mile and gravel carted for the 1040 remaining yards of 11th Mile.
	8	"				
Road from Venkatachellum's chatram a great Northern Road to Kristnapatam	13	13	2	1 1/4	5 3/4	

Name of Road	Total length in miles	Number of miles which have been maintained in good order during the year	Number of miles of road completed during the year	Number of miles under construction	Number of miles not yet commenced	Remarks.
Road from Nellore to Balurowis Chatram	5	5	2/3	1/3	3 1/3	Road metalled for the first 1/3 mile and gravel carted for another 1/3 mile, so that 2/3 of 2 mile are completed.
Constructing branch Road from the 20th Mile of Dornal Road to the Village of Sangam	1 1/4	1 1/4	..	..	..	
Constracting Branch Road from Singapett to good water well.	yards 288	yards 288	..	..	..	
Road from Narayanareddipett to Narukur	1 1/2	1 1/2	..	..	..	
Road from Allur to Kamuraganta on great Northern Road	6	6	..	..	..	
Road from Vooluapalle to Singapett	3	3	..	..	..	
Road from Razupallem to Iskapalli	17	17	..	..	..	
Road from Nellore to Kondayapalem	miles-yards 3. 1393	..	miles 3	yards 1393	..	

Collector

No. 2,323.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 20th August 1874.

Read the following letter from G. VANSAGNEW, Esq., Collector of Nellore, to J. GROSE, Esq., Secretary to the Board of Revenue, dated 25th May 1874, No. 1,169 :—

I HAVE the honor to submit the annual report on the Public Works executed in this district during the past official year 1873-74.

2. The following Statement exhibits the expenditure incurred during the year under report, as compared with that during the year preceding:—

Particulars of Works.	Expenditure in 1872-73.	Expenditure in 1873-74.	Difference.	
			Increase.	Decrease.
New Works.	Rs.	Rs	Rs.	Rs.
Irrigation	29,492	32,319	2,827	...
Building and communications including Police Stations	7,487	98,195	90,708	...
Total...	36,979	1,30,514	93,535	..
Repairs.				
Irrigation	59,085	67,573	8,488	...
Buildings	2,854	3,436	582	...
Total...	61,939	71,009	9,070	...
Grand Total ..	98,918	2,01,523	1,02,605	...

3. From the Statement it will be observed that every head of expenditure shows a large increase over the preceding year. The item of Rupees 98,195 under Buildings, etc., New Works, includes the sum of Rupees 66,783 expended on the "extension of the East Coast Canal."

The Budget grant for Agricultural Original Works was Rupees 75,000, allotted on the three projects particularized in the margin, nearly half a lakh less than the allotment of the preceding year. Of this grant, however, Rupees 20,000 were subsequently cancelled ;* and out of the balance of the allotment of Rupees 55,000, Rupees 32,319 only were spent. Of this expenditure, Rupees 25,011 only out of an allotment of Rupees 50,000 was expended on the Sarvepalli Project, leaving the balance of Rupees 7,308 actually expended on Minor New Works out of the revised allot ment of Rupees 2,450. For Repairs, Irrigation. the Budget grant w as Rupees 80,000, which was subsequently reduced to Rupees 66,000; but the amount actually expended on Repairs was Rupees 67,574, or Rupees 1,574 in *excess* of the allotment. This was owing, Mr. R. Smith states, to the difficulty he had in calculating accurately in consequence of the large number of works he had in hand, the sum required for each.

	Rs.
Improvements to the Sarvepalli Channel.....	50,000
Sangam Project	20,000
Minor New Norks, etc.....	5,000
Total...	75,000

*G. O., 30th May 1873, No. 1,453.

4. The original allotment for Civil Buildings and Communications, both Original and Repairs, was Rupees 1,10,800 including the grant of Rupees 50,000 for the extension of the East Coast Canal, which was subsequently increased to Rupees 1,43,422 ; but, deducting transfers and surrenders, the net allotment aggregated Rupees 1,07,662. Of this sum, Rupees 1,01,631 were expended, leaving a balance of Rupees 6,031 unexpended at the close of the year.

5. The budget grant of the year under report was as follows :—

Works.	Grant.	Expenditure.	Remarks.
Original Works.	Rs.	Rs.	
Buildings and communication including Police Stations, etc., (Provincial)	1,08,200	98,195	
Agricultural	75,000	32,319	
Total...	1,83,200	1,30,514	
Repairs.			
Buildings, including Revenue, etc., buildings (Provincial	2,700	3,436	
Agricultural...	80,000	67,573	
Total...	82,700	71,009	
	2,65,900	2,01,523	Total expenditure.
Tools and Plant...	225		
	2,66,125		
Add subsequent sanctions	35,783		
Total...	3,01,908		
Deduct.			
Transferred to other districts	91,070		
Surrendered	3,790		
Total...	94,860		
Balance of grant available	2,07,048		

6. The grant originally sanctioned in the year was Rupees 2,66,123, increased by supplemental grants to Rupees 3,01,908. This amount was by subsequent changes, transfer to other districts and surrender reduced to Rupees 2,07,048, a sum nearly twice as large as that available in the preceding year. The entire expenditure incurred was, it is gratifying to observe, Rupees 2,01,523, leaving a small balance of Rupees 5,525 only unutilized for reasons that will be explained under each head. The balance unexpended compares very favorably with that of the previous year.

7. Communications.—Roads are as usual omitted from this report. For the "extension" of the East Coast Canal from Dugurazupatam to Kristnapatam," Rupees 50,000 were provided from Provincial Funds, subsequently increased to Rupees 67,000 and Rupees 66,783 were expended. "Very rapid progress" the District Engineer reports, "has been made in the extension of this canal. Active operations were commenced on the 4th June 1873 at 81⅛ miles from Madras, and on 31st March 1874 the Canal was open to 85¼ miles from the Presidency. A further distance of one mile will be navigable at a very early date, and if funds are forthcoming and nothing unforeseen occurs, the Canal will be finished up to the Kundaleru, near Kristnapatam, in September next."

* Estimate Rupees 2,87,000, sanctioned in G. O, No. 274 of 1873.

8. Irrigation Works—*(a) Original.*—The provision under this head in the Budget was Rupees 5,000 for Ordinary Works and Rupees 70,000 for extraordinary Original Works, the latter amount being the allotment for the year for the Sarvepalli and Sangam Projects, and the former for Minor New Works. As in the last year, however, on the Sangam or Northern Delta Irrigation Project, no expenditure was incurred, and the grant itself Rupees 20,000, allotted in the Budget, was subsequently withdrawn. The provision for Minor New Works was by subsequent sanctions raised to Rupees 7,450.

For the repairs of the Pennair Anicut no specific allotment was sanctioned, but the amounts required for its repair were disbursed monthly by the District Engineer from the provision of Rupees 80,000 allotted for "Repairs Agricultural." Rupees 10,620 in all were thus allotted from time to time during the past year, but the expenditure, Rupees 11,176 was Rupees 556 in excess of the sums provided; a matter adjusted, however, by the District Engineer from the balance in his hands. From the Progress Reports considerable work appears to have been done. The filling in of the interstices in the aprons between the 1st and 2nd and 2nd and 3rd retaining walls with concrete has been completed. Three thousand two hundred and thirty two cubic yards of rubble stone were brought down to the anicut during the year, raising the total quantity collected to 6,006 cubic yards. The north bank of the Pennair has been pitched for some distance below the anicut, as the freshes last year injured a portion of it. A large quantity of Durba grass has been planted from the foot of this revetment to the margin of the river.

9. The aggregate expenditure on Agricultural New Works was Rupees 32,319, of which Rupees 25,011 were spent on improvements to the Sarvepalli Channel in connection with the Pennair Anicut, and Rupees 7,308 on Ordinary New Works. The outlay on the former project was larger than that of the preceding year, but still was comparatively small, due, as the District Engineer explains, to the pitching having been stopped to admit of the work done by the late contractor being carefully measured and to the unfavorable season, as water had to be retained in the channels long after the usual time for the Delta cultivation.

10. The sum of Rupees 7,308 spent on Ordinary New Works compares unfavorably even with the small expenditure of Rupees 11,108 in the previous year. The following list shows the Minor New Works under execution in 1873-74 :—

	—	Number.	Estimate.	Outlay. Up to 31st March 1873.	Outlay. In 1873-74.	Outlay. Total.	Complete.	Incomplete.
			Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
For Tanks.	Waste weirs...	3	1,870	... ...	1,366 8 2	1,366 8 2	2	1
	Improvements to do....	1	34	... ...	30 8 6	30 8 6	1	...
	Sluices...	21	4,981	1,198 8 0	2,949 10 3	4,148 2 3	17	4
	Improvements to do....	1	550	... ...	549 15 4	549 15 4	1	...
	Tank Revetments ...	8	2,178	... ...	1,449 4 5	1,449 4 5	4	4
For canals or channels.	Improvements to Regulators...	3	1,130	273 5 0	797 10 5	1,070 15 5	3	...
	Distributing works ...	3	421	248 3 5	164 1 1	412 4 6	3	...
	Total...	40	11,164	1,720 0 5	7,307 10 2	9,027 10 7	31	9

11. Irrigation Works—*(b) Repairs.*—The expenditure on Repairs amounted to Rupees 67,573 out of a provision of Rupees 80,000. The number of works repaired was as follows :—

Works.	Number completed.	Number incomplete.
Anicut	...	1
Channels...	3	12
Tanks and sluices	80	80
Weirs	2	...
Embankments or dykes ...	...	1
Aqueduct...	1	...

This outlay of Rupees 67,573 on Agricultural Repairs, which is in excess of that of the preceding year was distributed on the following works :—

	Rs.
On Pennair Anicut	11,176
On Southern Delta of Pennair, inclusive of Sarvepalli Section...	14,432
On works not under the influence of the Pennair Anicut	41,965
Total...	67,573

It will thus be observed that the Irrigation Repairs in the Pennair Delta amounted to Rupees 25,608, of which Rupees 11,176 were expended on the anicut. The original estimate for these

repairs to the anicut, sanctioned by Government, in Government Order, dated 24th February 1871, No. 544, amounted to Rupees 59,500. The net expenditure to the end of the previous year was Rupees 33,399-0-10, and the allotment provided for the year under report was Rupees 10,620, which was, as already stated, exceeded by 556 Rupees.

It is gratifying to observe that the outlay on Agricultural Repairs exceeded by Rupees 8,489 the expenditure under this head in the previous year, and by Rupees 13,314 that of 1871-72. If funds had been available, a further sum of Rupees 5,000 could, it is stated, easily have been worked out. As it is, the revised grant for Agricultural Repairs has been exceeded by Rupees 1,574.

12. East Coast Canal Repairs.—Reverting to the East Coast Canal, thirty-five miles within the limits of this district have been kept in fair order for navigation throughout the year.

13. Of the expenditure on Repairs, the proportion which fell to the several Revenue Divisions was as follows :—

	Expenditure.
	RS.
Sub-division	3,916
Head-Assistant's Division	8,148
Naidupett	4,474
Collector's	51,035
Total...	67,573

14. Subjoined is the usual Comparative Statement showing the aggregate expenditure for New Works and Repairs under the head of "Irrigation," compared with the revenue :—

Name of Taluq.	Area irrigated and the assessment as adjusted for 1873-74.		Expenditure under the Public Works Department during 1873-74 on works of Irrigation.		Total.	Comparison of expenditure with revenue.	
	Area.	Assessment.	New works.	Repairs.		On repairs.	Total.
	ACS.	RS.	RS.	RS.	RS.	per cent.	per cent.
Gudur...	51,291	2,21,881	364	10,868	11,232	5	5
Rapur...	5,288	20,819	1,650	4,474	6,124	21½	30
Nellore...	87,107	4,92,666	1,549	17,456	19,005	3½	4
Atmakur	16,284	82,250	1,127	6,596	7,723	8	9½
Kavali...	26,945	1,24,436	2,512	5,953	8,465	5	7
Udayagiri	3,256	14,518	...	2,195	2,195	15	15
Ongole...	2,893	15,089	...	1,359	1,359	15	15
Kandukur	13,768	70,184	...	2,111	2,111	3	3
Kanigiri	1,589	6,419	...	446	446	7	7
Total...	2,08,421	10,48,265	7,202	51,458	58,660	...	...
Expenditure on the Pennair anicut distribution over two taluqs.	...	...	...	11,176	11,176	...	...
Expenditure on improvements to Sarvepalli channel in connection with Nellore anicut	...	...	25,011	...	25,011	...	...
Jaffer Sahib's channel.	...	...	...	2,051	2,051	...	...
Kristnapatam canal ...	...	...	106	1,531	1,637	...	...
Pennair embankment ..	....	....	...	1,357	1,357	...	...
Total...	...	...	25,117	16,115	41,232	...	...
Grand Total...	2,08,421	10,48,265	32,319	67,573	99,892	6½	9

15 The expenditure of Rupees 25,011 on the Sarvepalli Irrigation Project, though inconsiderable when compared with the original allotment of Rupees 50,000 compares favorably with the previous year's operations. The estimated cost of this work was Rupees 4,20,000, the total expenditure to the end of the year under report being Rupees 3,78,728. All the main canals have been almost completed, but several distributing channels are still required to complete the system of irrigation. The drainage is still very incomplete, and until this has been greatly improved, the results will not be satisfactory. Mr. R. Smith hopes, however, to take this matter up during the present working season and to improve the distribution as far as possible. Several accommodation bridges have also to be built.

The Sarvepalli Channel has been excavated to the full depth for a length of miles 3-36 from Kanupartipad. A portion of the main reservoir was puddled to stop the excessive percolation that appeared towards the close of 1872. Seven hundred and two running yards of the laterite revetment were re-constructed. Subjoined is an abstract of the works executed during the year :—

	Total length.	Done up to 1872-73.	Completed in 1873-74.
	M. YDS.	M. YDS.	M. YDS.
Deepening Sarvepalli Channel	5 300	...	3 645
Main Reservoir.			
Removing and re-constructing revetment	1 838	...	0 702
Embankment.	Estimated cubic yards.	Cubic yards.	Cubic yards.
Earth-work...	2,89,247	2,97,262	13,593

16. Civil Buildings and Communications—(*a*) *Original.*—The expenditure on buildings and communications amounted to Rupees 1,01,631, viz., Rupees 98,195 on Original Works, and Rupees 3,436 for Repairs, against a net allotment of Rupees 1,07,662 provided for the year. This outlay contrasts very favorably with the operations of the two previous years.

17. The former sum Rupees 98,195 was laid out partly (Rupees 66,783) on the extension of the East Coast Canal (funds for which were provided in the Provincial Budget) and partly on the construction and improvement of the following twenty-five works, or in adjusting payments for materials collected:—

	Expenditure. RS. A. P.
1. Constructing corpse gate for the Nellore Cemetery... ...	1,005 10 1
2. Do. a Dead-house at Nellore	1,257 4 0
3. Do. a Police Station-house at Racherlapaud ...	686 8 0
4. Do. do. at Butchireddipalem..	751 10 11
5 Providing Argaund lamps for Christ Church, Nellore ...	224 10 9
6. Providing windows for certain rooms of the Engineer Storeyard	90 0 0
7. Fixing a new window in the Engineer Storeyard	27 0 0
8. Do. two windows to the District Munsif's Court, Nellore.	38 0 0
9. Improving Taluq Cutcherry and constructing Subsidiary Jail at Gudur	492 11 0
10. Constructing a 2nd Class Taluq Cutcherry at Venkatageri.	894 1 8
11. Do. do at Sulurpett ...	344 8 5
12. Constructing a Police Station-house at Sulurpett	787 4 3
13. Do. do at Ogili	729 3 5
14. Constructing Taluq Cutcherry at Atmakur	3,999 2 1
15. Do. do. at Rapur	2,234 4 1
16. Do. do. at Udayagiri	2,974 3 8
17. Constructing Police Station at Kovurpalli	1,188 12 6
18. Converting the old Taluq Cutcherry at Ongole into a District Munsif's Court	2,530 12 7
19. Constructing Police Station-house at Tettu	931 15 8
20. Do. do. at Tangutur	656 1 4
21. Providing three windows on the south and east side walls of Tahsildar's Cutcherry at Kandukur	43 14 0
22. Constructing Sub-Collector's Cutcherry at Ongole	4,684 13 2
23. Constructing Police Station-house at Singarayakonda ...	77 14 9
24. Constructing Salt Cutcherry at Kanuparte	818 12 6
25. Constructing a 1st Class Cutcherry at Kanegiri	3,942 8 5
Total...	31,411 11 4

Of these buildings, Nos. 1 to 8, 12, 17, 23 and 24 were completed, the construction of the others being merely in progress. The expenditure on new Provincial Buildings thus shows a total of Rupees 31,412, which is a large sum for Nellore. Mr. R. Smith states that considerable difficulties were experienced in starting building operations in several localities simultaneously with a limited staff, but they have been overcome, and he expects a marked improvement this year in the rate of working

18. The Sub-Collector's Cutcherry at Ongole, referred to in last year's report, the estimate (Rupees 10,700) of which was sanctioned in Government Order of 5th January 1872, No. 28, is, I am glad to say, approaching completion, and will soon be available for occupation.

The work of converting the old Taluq Cutcherry into a Munsif's Court has been delayed a good deal for want of materials, the palmyras having to be procured from Madras The Kanuparti Salt Cutcherry has been finished.

19. (*b*) *Repairs.*—The amount expended under this head during the year was Rupees 3,436, also an improvement on the preceding year's operations; on the repairs of the following fifteen works twelve of which were completed:—

	Rs.	A.	P.
1. Repairing Police Station-house at Sangam	172	8	3
2. Re-constructing a thatched stabling for the Collector's Cutcherry at Nellore	90	0	0
3. Repairing portion of Jailor's house at Nellore...	48	4	10
4. Do. Christ's Church at Nellore	459	14	5
5. Do. Engineer Storeyard at Nellore	467	5	4
6. Removing and re-constructing the ridge Ventilator of the roof of the Western Range of buildings in the new Jail...	1,379	10	9
7. Repairing Civil Court-house at Nellore	5	2	2
8. Levelling the ground adjoining the Sub-Magistrate's Cutchery at Nellore	35	0	0
9. Repairing District Munsif's Court at Nellore	248	10	4
10. Removing and re-constructing a portion of south workshop of Engineer Storeyard at Nellore	207	5	6
11. Repairing Treasury Guard-room attached to the Collector's Cutcherry	80	0	0
12. Improvements to No. 1 Light House at Monopalem... ...	85	3	0
13. Fixing a copper rod to the Lightning Conductor of Monopalem	39	0	11
14. Repairing Taluq Cutcherry at Kavali...	111	11	11
15. Do. do. at Udayagiri	5	11	6
Total...	3,435	8	11

The repairs of works Nos. 9, 10 and 13 only of those enumerated, had not been completed at the close of the year.

Altogether twelve Civil buildings were repaired, and three others partially repaired, and I am of opinion that the progress made during the year on Civil Buildings, both Original Works and Repairs, is satisfactory.

20. Civil Dispensary at Ongole—Regarding this dispensary, referred to in last year's report, which is now a Local Fund Institution, I beg to state that the estimate, amounting to Rupees 2,480, was sanctioned by the Local Fund Board in September last. An allotment of 1,780 Rupees required for the work during the latter half of the year, was also provided, and the plans and estimates were returned in November to the District Engineer for execution. Fair progress has been made with the work.

21. Chundi Estate works—Estimates amounting to Rupees 20,508 were sanctioned by the Court of Wards for the repair of works of Irrigation in the Chundi Zemindari. A grant of Rupees 10,666 for the year under report was also made in Court of Ward's Proceedings, Nos. 5,686 and 464, dated 5th September 1873, and 23rd January 1874, to permit of the progress of the works; but the available funds were placed at the disposal of the Department Public Works on the 4th February last only, too late to admit of any actual progress being made. A small expenditure of Rupees 16-12-5 only was incurred.

22. State of Season, Prices and Labor.—The season was on the whole not so favorable as in the preceding year. In the Sub-division, the tanks generally did not receive a full supply, and in the delta the freshes were very late. This, with the scarcity of water in the Pennair in September, affected the Delta crops. The tanks in Rapur, Atmakur, Udayagiri and Kavali, however, with a few exceptions, received a full supply. The total rain-fall registered during the year was 33·70 inches against 43 90 inches in 1872-73

23. As one result of the season, the prices of grains and all agricultural products, with the exception of Cotton and Indigo, where higher than in the previous year. The dry grains, Jonna, Suzza, Ragi, and Varagu, in particular exhibit an increase of 22 to 33 per cent.

24. The District Engineer reports that the great demand for labor in consequence of the extension of the East Coast Canal, affected the water in the vicinity of that communication, but that practically the general rates of the district remain unchanged. In the sub-division, comparatively high rates are reported to have prevailed, as labor was very scarce, and all skilled workmen had to be imported.

25. The usual Statement of mileage on roads, directed to be furnished in G. O, dated 11th November 1868, No. 2,831, is enclosed; and subjoined is an abstract of it:—

	Miles.
Great Northern Road	179
Road from Kristnapatam to Dorenal Pass...	73
Kottapatam and Cumbum road...	62
Road from Ullapalem to Cumbum viâ Vemulapad Pass...	59
District Roads	299
Total...	672

26. Copies of the reports of the Sub-Collector, Head-Assistant Collector, and General Deputy-Collector are forwarded, as usual. These reports are on the whole again favorable. Paragraph 5 of Mr. Mackenzie's report relating to the state of the tanks in the Udayagiri Taluq, has been referred to the District Engineer for consideration, and so have paragraphs 4, 6 and 7 of Mr. Glenny's letter. Particular attention is requested to paragraphs 7, 8 and 9 of the Deputy-Collector's report.

27. In conclusion it affords me much pleasure to note the vast improvement in the working of the Public Works Department under the District Engineer system during the past two years. The real improvement far exceeds what the mere figures would indicate, the same figures representing now a deal more and better work than they did two years ago. There are always difficulties and drawbacks to progress in the Public Works Department, for which allowance must in fairness be made. Here, for instance, no experienced executive officer has yet been appointed to the important Nellore Range. Subordinates too are apt to break down unexpectedly at critical times and in various ways. Mr. R. Smith has had trials of this kind to contend against, and if he has not been able to accomplish all that he contemplated during the year, I am sure I may say that he has accomplished all that it was possible for a good Engineer and a good administrator to do with the means at his disposal.

Enclosure No. 1.

From W. H. GLENNY, Esq., Acting Sub-Collector, to G. VansAGNEW, Esq., Collector of Nellore, dated Machavaram, 20th April 1874, No. 212.

As directed by your docket No. 738, of 16th instant, I have the honor to report on Public Works (not including communications) in the official year 1873-74.

2. I follow the numbering of the works in the December Progress Report, the last that has reached me.

3. (*a*) Civil Buildings.—(1.) Sub-Collector's Cutcherry at Ongole, was at a stand-still (for want of timber) from March till July. Has since been pushed on. At last inspection (9th February) the Court Hall and the Tower were apparently nearly complete; the other rooms not roofed.

(2.) *Singarayakonda Police Station.*—Neat and well finished. Completed a few days before last inspection (6th January). Much the better for east window added by Mr. Smith's orders.

(3.) *Kunuparti Salt Cutcherry.*—Completed when I inspected it on January 31st. Seemed a poor result for all the money (about Rupees 1,550) it represents. But I am aware that there was (before my arrival in the district) a hitch in the matter, discussion on which was finally closed by Government. The building seemed rather confined for its purpose. Construction seemed good; the old portion of the materials sound.

(4.) *Kanegiri Taluq Cutchery.*—Hardly begun.

(5.) Conversion of old Ongole Taluq Cutcherry into Munsif's Court. Protracted a good deal for want of materials I believe. Palmyras actually brought from Madras, fact which illustrates building difficulties in these parts

(6.) *Tettoo Police Station.*—Foundation and a few inches of superstructure done on 5th January.

(7.) *Tungutur Police Station.*—Not begun on January 9th.

(8.) Three new windows in Kandukur Taluq Cutcherry. Well and cheaply done. Inspected 16th December. The only work on Civil buildings not included in the Progress Report in question that occurs to me was the buttressing of the Tangutur Bungalow by Mr. Smith's orders, this work, I believe, saved the bungalow from falling. The injury must have been caused by the earthquake of July. Trifling internal repairs to this same bungalow were carried out, and appear under "Road Fund Repairs."

4. Ordinary Agricultural Repairs.—I shall not go through these works *seriatim*. Of the thirty, I have inspected only five. This is mainly due to the fact that, like other Divisional Officers, I never officially hear of works till they are begun: even when the works are undertaken at my own instance.

The five works inspected were the following :—

No. 3.—Pokoor Tank Bund and Sluice, December 15th, 1873.
No. 9.—Perramitta Tank, November 15th, 1873.
No. 11.—Ramapatam large tank, July 24th, 1873.
No. 25.—Binginipalli Supply Channel, January 7th, 1874.
No. 26.—Tettoo large tank, January 6th, 1874.

The Pokoor and (No. 30) Chinnalaterpy works were unfortunate. Both bunds were repaired in September and breached in November. Mr. Ottmann in the September Progress Report expressed dissatisfaction with the Chinnalaterpy work. I believe no fault was found departmentally with the repairs at Pokoor. The heavy fall of rain in October and November was a severe test of fresh earth-work

On my representation, Mr. Smith devoted a portion of the allotment for the Ramapatam tank to the Supply channel instead of spending it all on the bund. I have not seen any of the work on the channel. About a fourth of the clearance of the old Binginipalli Supply channel had been done on the date of my inspection. I have since (on the 5th instant) heard from the villagers that it has been completed. I beg to urge the necessity of repairing the *tank* before next monsoon, now that the channel is in effective order. The latter's usefulness will to a great extent be wasted otherwise. Mr. Ottmann found that the long projected new Supply channel (of which I spoke in my last report) from the Manneru through the Shanumpudi lands is an impossibility, for want of a fall. The repairs to the Tettoo tank appeared to me well executed and sufficient.

5. I have made notes of the works enumerated in the previous Progress Reports of the official year. All are included in the December report.

6. I am glad to hear that an Overseer has lately been at this village of Machavaram on the special duty of framing an estimate for the repair of the tank. I believe he has also looked to the Mopad tank. In my last report I urged the necessity of repairing these two tanks, which are the largest in the Sub-division. I find that the Machavaram tank is in much worse plight than I thought from my inspection of it last year, when there was a good deal of water in it. The effective repair of both these tanks will be a costly but very remunerative work, I trust it will be undertaken as soon as possible.

7. Of small irrigation works, the most emergent that has come to my notice is the repair of the Binginipalli tank (*Vide* paragraph 4, *supra*). This ought, I think, to be put in hand at once. Next come repairs of the sluices of the Chellamcherla tank (inspected 20th December).

The people were driven to all sorts of make-shifts last year : no doubt much loss was actually sustained, and there was for a considerable time imminent risk of very serious damage. This is a trifling work, and should certainly be disposed of without delay. A larger work of less urgent nature is the clearance of the Karredu Supply channel. This if accompanied by the repair of the tank would be a paying work. The Pakala tank is greatly in need of repair.

8. As to Civil buildings. All that are wanted in the way of Cutcherries and Subsidiary Jails have long been sanctioned, and will come on for construction in turn. Meanwhile I have (in my letters No. 481 of 16th December 1873 and No. 28 of 20th January 1874) called your attention to certain inexpensive *ad interim* repairs to existing buildings which are much wanted at Kandukur and Addanki, and obtained sanction for their execution. I regret to find that the trifling work wanted at Kandukur is still undone. I trust that the Public Works Department will shortly dispose of these small operations at both places. I mention here what I consider a real and serious want of the Sub-division, though with not much hope of its being supplied, as so many large buildings, (sanctioned and much wanted) stop the way. In fourteen villages the Police are stationed in village buildings, *gramachavadies* and *pirlachavadies*. This number will be reduced by two when the Tettoo Station and the Kanigiri Cutcherry are finished. If a grant could be made for stations and sub-stations in the dozen other cases, a source of annoyance and inconvenience to both police and people, which in the aggregate is considerable, would be removed, decidedly to the advantage of the Public service, several of the places where these buildings are wanted are remote Zemindari villages; it would waste the time of the Range Officer to include the construction of them in his regular work.

9. In conclusion, I am glad to say that, to the best of my judgment, Mr. Ottmann has done his work well; and he has always been ready and willing to give me any information I wanted.

(True Copy.)

(Signed) G. VansAGNEW,
Collector.

Enclosure No. 2.

From G. MACKENZIE, Esq., Acting Head-Assistant Collector, to G. VansAGNEW, Esq., Collector of Nellore, dated 2nd May 1874, No. 131.

I have the honor to submit the annual report on public works.

2. As I have but lately taken charge of this division, I am not able to say much from personal inspection of what has been done during the past year, and it is superfluous for me to quote statistics and figures for my taluqs, as all that information can be more readily obtained from the Office of the District Engineer.

3. The new Cutcherry which is under construction at Udayagiri is almost completed, and I hope that the Tahsildar may occupy it before the October monsoon. The work appears to have been very well executed under Mr. Plummers' supervision.

4. The roads, so far as I have seen them, are in a very creditable state indeed, very much better than the roads in other taluqs.

5. In the reports submitted in 1871-72-73, Messrs. Wallace, McCarthy and Weir all drew attention to the wants of the tanks in Udayagiri Taluq. Little has been done to remedy the state of matters they pointed out, and I would also beg to suggest that the special attention of the District Engineer be asked for this outlying taluq. There is hardly a single tank which is not in need of repair.

6. The Department Public Works have completed the aqueduct from the droog into Udayagiri town and that portion of the work which was done by the department seems to be very good,

but as I have mentioned in a separate communication, the upper part of the conduit requires considerable repair before the supply of water can be brought regularly down into the town.

(True Copy.)

(Signed) G. VANSAGNEW,
Collector.

ENCLOSURE No. 3.

From C. CUNDASWAMY MUDALIAR, Deputy-Collector of Naidupett, to G. VANSAGNEW, Esq., Collector of Nellore, dated 4th June 1874, No. 117.

I HAVE the honor to submit my annual report on the Public Works executed in my Division for the year 1873-74.

2. Subjoined is an abstract showing the expenditure incurred during the year under report as compared with the preceding year:—

Particulars of Work.	Expenditure in 1872-73.	Expenditure in 1873-74.	Difference.	
			Increase.	Decrease.
Buildings.	Rs.	Rs.	Rs.	Rs.
1. New works	283	4,260	3,977	...
2. Repairs...	226	...	...	226
Total...	509	4,260	3,751	...
Irrigation.				
1. New works	443	1,650	1,207	...
2. Repairs...	7,961	4,474	...	3,487
Total...	8,404	6,124	...	2,280
Grand Total...	8,913	10,384	1,471	...

3. From the above Statement, it will be seen that the aggregate expenditure on Civil Buildings and Irrigation Works in 1873-74 was Rupees 10,384 against Rupees 8,913 in the preceding year.

4. CIVIL BUILDINGS.—The amount spent under this head on provincial buildings was Rupees 4,260. Of this, Rupees 3,473 were expended on the new Taluq Cutcherry at Rapur and the Sub-Magistrates' Cutcherries at Venkatageri and Sulurpett, all of which are now in progress, and the remainder (Rupees 787) was laid out on the completion of the Police Station at Sulurpett. No expenditure was incurred on account of repairs.

5. IRRIGATION WORKS—(*a*) *Original.*—Under this head a sum of Rupees 1,650 was spent on minor irrigation works in the Rapur Taluq. With the exception of Rupees 98, which was laid out partly on the improvement of the revetment of one tank and partly in improving the Calingula of another, the whole of the above sum was expended in constructing nine sluices at places where they were much required. Six of these sluices have been completed, and the remaining three partially executed. No other new works of irrigation were executed in my division.

6. IRRIGATION WORKS—(*b*) *Repairs.*—The total expenditure on agricultural repairs was Rupees 4,474. Of this sum, Rupees 1,740 was spent in completing the repairs of works which had been left incomplete at the end of the preceding year, and Rupees 112 in closing a new breach in one of those tanks. With the remaining sum, which was only Rupees 2,622, the repairs of thirteen other tanks were taken up, twelve of which were completed within the year.

7. In conclusion, I have only to repeat my request in regard to the restoration of the ruined tank in Griddalore, referred to in paragraphs 7 to 10 of my last year's report, published in the Board's Proceedings, No. 1,291 of 15th July 1873. The District Engineer also is in favor of the restoration of this tank considering the large revenue it is expected to yield, but the Government seem to have declined to sanction the small establishment which he required for its survey and consequently nothing has been done about it.

8. It is not to be supposed that this work is one like the Sangam and Sarvepalli Projects, which are extensive operations, extending over several years and requiring an outlay of lakhs of Rupees. Here we have only a single tank with a good Supply channel and a large extent of irrigable land under it. What is required is to effectually close the breach which had been formed in the heart of the bund about a century ago, and to restore the bund with the necessary calingulas and sluices. The whole work, which will probably cost some 15 or 20 thousand Rupees at the most, will, I believe, be completed in two years and is expected to yield an annual revenue of 4 or 5,000 Rupees. I have the honor therefore to request that you will urge the matter on the attention of the Board and the Government, so that sanction may be accorded for the small establishment which the District Engineer requires for preliminary operations.

9. There are one or two more tanks in the Rapur Taluq similarly situated, the restoration of which will permanently increase the wet beriz of the taluq. These can be considered when the Griddalore project is out of hand.

(True Copy.)

(Signed) G. VANSAGNEW,
Collector.

ENCLOSURE No. 4.—Statement showing the mileage of roads.

SUBMITTED for the information of Government.

2. The total grant available for the year was Rupees 2,07,048, of which amount Rupees 2,01,523 were expended.

3. The report is in general most satisfactory and the Board observe with much pleasure the harmonious action of the Civil and Public Works Departments which reflects credit alike on the Collector and the District Engineer.

4. The attention of Government is requested to paragraph 7 of the report from the Deputy-Collector in which a proposal already laid before Government for the restoration of the ruined tank in Griddalore is again brought forward.

4. The cost of the repairs is estimated roughly at Rupees 20,000, the supply of water is ample and the extent of land irrigable under the tank so large, that the result of a restoration will be an annual revenue of from 4 to 5,000 rupees.

5. Under these circumstances, the Board would strongly recommend that the establishment required for surveying the locality be sanctioned.

(True Copies and Extract.)

J Grote
Secretary.

To the Secretary to Government, Public Works Department,
with one original Statement.

Copy to the Acting Secretary to Government, Revenue Department.
,, to the Collector of Nellore.

Exd. G. A. Turton.

P. W. 1874 Dept.
Proc. 20th Aug. No. 3534

1874.

Board of Revenue,

MADRAS.

PROCEEDINGS, 20TH AUGUST 1874, No. 2,323.

Dep.t 2 Sept.r 1874
Encl.y

Received 3 Sept.r 1874.

AUGUST
No. 2,323.

Public Works—in Nellore District, in 1873-74.—Collector's report on—submitted to Government, with Board's recommendation that establishment required for surveying land irrigable under tank in Griddalore may be sanctioned.

Withdrawn

5534

Govt. of Madras.

PUBLIC WORKS.

To Mr. C. Thyagaraja

Dated

Read. Encl.

G. O. No. 1874, No. 264

Nos. 368-369.

Public Works in Nellore Dt.
Collector's report on Public Works executed in 1873/74
Comd. to the Chief Engr. for Direction with instructions —