

(1) Number of pages 10
 (2) Date of repair 27/3/80
 (3) Initials of the Referencer _____

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No.	803	Press.
B.P. No.		Mis.
Dated	13/2/77	197 .

Not to be folded or roughly handled

No. 600. Read the following endorsement of the Chief Engineer for Irrigation,
dated 26th January 1877, No. 75 W:—

From J. H. LATHAM, Esq., Chief Engineer and Manager, Madras Irrigation and
Canal Company, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer
for Irrigation, dated Kurnool, 19th January 1877, No. 6.

December's Reports.

I HAVE the honor to forward per boo post copies of the Upper and Lower
Division Reports, together with my own for the month of December 1876, with copy
of No. 10 of 11th instant to the Acting Collector of Kurnool.

MADRAS IRRIGATION AND CANAL COMPANY.

UPPER DIVISION.

Monthly Report for December 1876.

WATER was 6.2 on the gauge in the river above the Soonkesala head-sluice, or 4.0 feet
below the anicut crest on the 1st of the month. It fell to 4.7 or 5.5 below the crest by the 31st.

In the canal it has fallen from 5.1 to 4.1. At Jupaud 61 miles 58 chains, it has fallen
from 5.2 to 4.4.

In the canal below Jutoor anicut 93 miles 59 chains, it has been 5.0 all the month until the
30th when Mr. Dunphy altered it to 4.0.

2. No rain has fallen.

	ACRES.
The total of the first and second class crops is	8,429.42
The dry crops flooded	25,443.01
Making a total of.	33,872.43
My November account gave a total of	26,715.90
Excess now shown is... ..	7,156.53

3. It is probable that by the end of January there will be a still further increase, when I
hope every field in the villages under the canal in my range will have been examined and entered
correctly.

4. A statement showing the area irrigated in each village is appended. It is to be
regretted that the complete return of irrigation called for up to the 31st December 1876 cannot
be given here, but the unlooked for increase and continued applications for water even up to this
date as well as other causes have rendered the accurate return impossible. It will, however, be
ready in a few days. Five additional writers are employed in my office in copying the returns,
and considerable increase has been made to the staff in the field. It is, however, difficult to get
men who are of much use at this special work without at least a year's training.

Moreover, the relief works seem to have swallowed up all available hands, as there are now
250,000 coolies supported on Government Relief Works in the Kurnool District which, at one
maistry per fifty coolies, represents 5,000 writers or overlookers, besides many extra hands
required for other purposes.

5. Unfortunately the relief works were begun* on the principle that the coolies were not

* Not exactly begun. Up to middle of November more
strictness was practised.

obliged to work, and they have generally
carried out the idea as much as possible. The
consequences of this system are that not a cooly
can be obtained for canal work unless we pay double the amount given on the relief roads, and
payment is demanded every evening. I do not believe the men would do a quarter day's work

now. In fact, it may be considered that forwork the coolies of the district are utterly demoralized, and the effect will be felt for a long time in any future works which may have to be carried out here. Endeavours are now being made to get more work out of them. It is a great mistake to mix able-bodied workmen with the old and useless. I see some of the hardest working coolies accustomed to quarrying, blasting, and all kinds of heavy work, sitting on a road and patting it with their hands; once when the mistry in charge endeavoured to rouse them, they laughed in his face, nor did they move as I rode by; so certain were they of getting their day's wages or food.

6. It will be of great importance to ascertain the state of the dry crops raised entirely by irrigation; it is almost too early at present, but by February some crops of white cholam will be ripe and I shall be able to make inquiry throughout all my villages. As far as I have seen, the appearance of the fields is very assuring, and abundance of cholam straw will be obtained. As the worst feature of the famine is the inevitable loss of cattle from want of grass or straw, that which we save below the canal will be a very great boon to the country. It is probable that the ryots under the canal will save most of their cattle, and thus be able to resume their work on the first appearance of rains. Elsewhere in the district it is probable that much land will be idle, as nearly all the cattle will be dead. The sale of bullocks in Karnool has been so great that the coolies find it cheaper to buy rent than grain, a bullock selling for Rs. 3. They eat the flesh half raw, and no doubt increased the sickness which was then raging among them.

Nearly all the rice in Karnool has been harvested; the straw alone was sold at fabulous prices, most of it was retained for the use of the owner of the fields. I trust that Government will have no cause to remit dry crops assessment on any fields watered by our canal; indeed where a man had the option of taking water and refused, he certainly does not deserve remission. In the interest of the public good he ought to have been made to sow something on the land in his possession.

7. One cause for the delay in getting the accounts was mentioned in my last report, the inability of the Carnams to attend when measurements of the fields were being taken. In the Nundial taluq nearly every one of these headmen refused to attend to the request of my Surveyor when he was measuring in their villages. The Tahsildar when applied to said that the Government orders regarding relief works prevented him from attending to irrigation details. As we depend entirely on the village accountant for a register of the irrigation, kept in accordance with the Rules XII, XIII, XIV, XVI, and XVII more especially for these dry crop floodings, the absence of any such registers and the deficiencies in others have thrown the whole work on my subordinates, many of these men quite new to the villages in which they are measuring the fields and where they are obliged to enter the revenue details themselves instead of the Carnams. In one village I found 400 acres of land irrigated which had been entirely ignored by the Carnam. Many other cases of the same kind occurred. In consequence of this a very strict scrutiny of the fields is now being made. Had the Overseers been free and able to look to the supply of water more, more dry crops would have been flooded.

8. The health of the staff has been generally good, but a few cases of fever occurred.

9. The staff were paid from the 2nd to 9th November 1876.

(Signed) C. H. WILKS,
Conservancy Engineer.

LOWER DIVISION.

Report for the Month of December 1876.

The average supply of water to the Lower Division has been maintained throughout the month, while the demands from it have been increasing day by day.

The two rivers which have in other seasons mainly supplied the irrigation have remained dry as in previous months, and it has been no easy matter to make up for the loss by sending down a portion of the water which reaches Junior head works of the 93rd mile, and maintaining

it for the head sluices at the enicuts which cross these rivers 53 and 87 miles distant respectively. In the canal itself the regulation by hand of the water through the twenty-six locks requires great care and watchfulness. The demands for water between these locks and from the head works sluices constantly fluctuate, and the control of all can only be in the Divisional Officer's hands, who has to constantly issue written orders which sometimes occupy days in transmission to their destinations. Had the telegraph been restored, much correspondence and expenditure of time as well as anxiety would have been saved.

There seems every probability of the demand for water next season being as great as it is now, and for that alone the telegraph would be a great aid.

There has been no rain this month. I enclose *all* returns.

The weather has been cool, the thermometer standing at about 84° in doors at midday, with an occasionally cloudy sky unusual for December.

Irrigation is extending every month, and quite regardless of the uncertainty of the supply after December the ryots are still busy sowing.

I enclose an abstract statement of irrigation in the Lower Division. I have added to it a column giving the estimated increase for the next month.

It will be seen that the dry crop irrigation in the Cuddapah District is small.

This may be attributable to several causes, but hardly to any fault of the ryots, who are now making up for lost time by *imitating* their neighbours higher up, regardless of any fenced risk.

All the tanks commanded by the canal, twelve in number, have been filled, while the ayacuts of six others have been supplied direct.

While the cry for water has been spreading, and while it has been my utmost endeavour to make the best use of the comparatively insignificant quantity at my disposal, the ryots have been greedily and forcibly endeavouring often with success to monopolize *all* the water in the channels.

Such outrages as forcibly taking possession of a channel and all the water, driving the banker in charge of a channel from his post, or recently by force, destroying the dams made in the channels by the Company, and other lighter offences, are numerous; and yet ryots are constantly complaining to the Deputy Collectors and Tahsildars of non-supplies and insufficient quantities of water to their villages; such complaints are too readily heard and are invariably forwarded to me with long effusions, dilating on the supposed deficiency of supply, for it is too much trouble to ascertain if such complaints be true; but no reference is ever made to the probable cause of the deficiency, with which none but the native officers should be better acquainted. They know how unscrupulous a ryot is, and how totally regardless he is of truth and justice if he be thwarted or piqued. They must know that with such a large supply of water constantly in the channels for such a small area irrigated, such phenomena as deficiencies and total failure of supplies to villages can only occur by accident to the works, or interference with them.

I have frequently complained of the latter to them and have instituted criminal cases against some offenders, but hardly with success, at least with regard to checking the lawless interference with the channels.

I instituted a case against a body of ryots of Yllar for entirely damming up a main channel which had to supply several villages, and who were armed with battle axes which they threatened to use against any banker or other employes who attempted to thwart them in their intention to take all the water. Mr. W. Johnston (Range Officer) and the Overseers expostulated with the men, but without success; so summonses were taken out against them.

The case occupied the canal officers time for nine days, and the offenders were punished with a fine of 10 Rupees each. One of the defendants immediately after the case wrote a petition complaining of insufficient supply of water.

The Magistrate of Nundial commenting on the case wrote to me to the effect that prosecutions would deter ryots from irrigating. I have succeeded in getting other ryots punished, but

I fear that, until they are treated with more firmness, they will not learn to respect any body's rights except their own.

The ryots of a village close to the one mentioned above recently complained to me personally that the Reddi of another village had effectually prevented all the water from reaching their village and the banker who had endeavoured to regulate it was assaulted. I sent the banker the next day and told him to caution the interference of ryots, but he was disregarded. The next day I sent two of my lascars with the banker; the ryots in this case allowed my men to divide the water, but as soon as the lascars left, they proceeded to undo their work, and were caught in the act by my men who returned with that object.

The Range Officer, Mr. Johnston, reported to me to-day (10th) that while inspecting the village of Sirwell he discovered a mass of irrigation under a channel which some ryots had taken possession of, and for which no application had been made to my body. The ryots told Mr. Johnston that the Tahsildar had given them permission to take the water. In this village alone 900 acres have been irrigated on this system.

The villagers under the canal may be considered to be in a very prosperous condition, the crops being very good indeed. It seems to be surprising that instead of a ryot irrigating the whole of his rain-sown crop, he has merely taken water for patches; this is the case in almost every village.

A man out of a field for perhaps 40 acres applies for water for 4 acres, saves the 4 acres and loses the remainder entirely, and I suppose the land assessment for the major part of the field is lost also because the owner of the field chooses to abandon the certainty of saving his crop, as he doubted the instructions issued and circulated by Government concerning the saving of dry crops.

At present the famine does not show itself very strongly except by the unusually large number of old and helpless creatures who may be seen begging in the large villages. The masses of people clustered on the roads look anything but starved; the majority of them being well-dressed and wearing jewels which would furnish meals for many days. Some of them are well-to-do people with flourishing crops under the canal.

I have been quite unable to get a single cooly to work independently on the canal, and a request for a gang to complete a channel which I made to the Sirwell Tahsildar was never attended to, perhaps because there were no tools to work with, as those I offered were only taken away a few days back. The Collector of Cuddapah at my request placed a gang of relief coolies to work on a channel, and they executed work at about one yard for the rupee instead of sixteen, the usual quantity.

The great distress is at present amongst the cattle; early in the month I saw two buffaloes brought out of a village which had died of starvation the same morning. The Curram of the village told me the village had lost over thirty from the same cause.

There is now a great deal of fever and cholera about. Fever seems to have set in rather suddenly.

Cholera was promoted by the crowding and careless arrangements adopted on the roads, and it is now showing itself in the villages.

The worst part of the season is yet to come; the distress will be very great when the canal fails to supply the rivers, wells and springs which are fed almost entirely by this source, even in some villages under the canal, the wells began to fail a month ago. I have made many inquiries, and not a person I have questioned remembers such a disastrous year, nor have they heard of such an one.

Prices of grain remain stationary, and the employes find it difficult to purchase any. The rice brought up from Madras for them has been distributed at a much less cost than the bazaar selling price.

CAMP AT YALLOOR,
12th January 1877.

(Signed) J. O. DUNPHY,
Acting Conservancy Engineer.

Abstract of Irrigation up to end of December 1876.

Taluk.	Ordinary or Wet Crops.	Dry Crops.	Total.	Estimated increase for Jan. 1877.	Remarks.
Sirwell	2,609 70	17,107 01	19,716 71	5,433 00	12 Tanks have been filled.
Koilkantla	552 33	4,789 69	5,341 02	572 00	
Cuddapah	3,386 00	1,228 00	4,614 00	836 00	
Prodator	3,871 62	2,567 87	6,439 49	1,143 73	
Jummalmudgoo	498 79	1,337 83	1,836 62	420 00	
Total	10,919 44	28,120 40	39,039 84	6,403 73	

CAMP AT YALLOOR,
January 1877.

(Signed) J. O. DUNPHY,
Conservancy Engineer.

Register of Rainfall during the Month of December 1876.

Date.	Yalloor.	Chintacoonta.	Rapoly.	Dhoor.	Adampully.	Remarks.			
1876.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.			
		1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
At Dhoor from 1st January to end of December		25-21	25-0	16-06	46-39	26-94	61-35	26-87	8-04

DHOOR,
January 1877.

(Signed) J. O. DUNPHY,
Acting Conservancy Engineer.

Chief Engineer's Report to accompany Divisional Reports for December 1876.

THE increase of cultivation under the canal has again been about 20,000 acres a-month. 100 Acres have been actually recorded up to the end of December in the registers in the officers' ranges. Adding a pretty definite estimate of the areas not yet measured, the cultivation likely to be carried on under the tanks which have been filled, and the irrigation added during the current month (January), a result of 5,400 acres irrigated is obtained. A detail of this cultivation accompanies this report together with my guess at the total yield of food to be expected if all go on favorably to harvest. The result of the calculation is:—

In Cuddapah District	19,050,000 lbs. food grain.
In Kurnool	65,240,000
Total	84,290,000

ough to feed the whole district, of a million inhabitants, for two months, and probably the will be enough to maintain all the cattle, not yet perished, in the villages under the canal. This calculation vegetables are not reckoned as being any substitute for food grain; whereas do, in fact, often save grain, e.g., sweet potatoes, brinjals, pumpkins, &c. This grain at present prices is worth Rupees 7,000,000, and if the value of vegetables, cotton, and straw be added, the actual value of the crop created by the canal cannot be nearly estimated than as one million sterling; but its value in helping the district to tide the critical month of May, and in supplying village wells with good water can only be represented by such an estimate.

*Proceedings of the Madras Government, Public Works Department,
30th January 1877. No. 292.*

The actual saving to Government by the provision in the least accessible parts of the district of such a food-supply, which would otherwise have had to be brought perhaps from America, is about £500,000.

The revenue derived by the Company will be about—

	RS.
On 17,450 acres rice at Rupees 5	87,250
" 3,150 " garden at " 4	12,600
" 64,800 " dry at " 2	1,29,600
Total	2,29,450
Deduct remissions, say	11,450
Probable Revenue	2,18,000 or £20,000

This will cover working expenses, so that it is satisfactory to know that the shareholders, such of them at least as circumstances have not compelled to sell out recently at 80, will not be out of pocket by the canal this year.

Since the 1st January the supply to the canal has fallen at the rate of a foot a-month. To-day (18th) there were only 3 feet flowing over the Hindry aqueduct, when, at 11 A.M., a telegram arrived from Major Hasted from Bezwarah asking me to close the canal. By 1 P.M. all the twelve scouring sluices in the 17th mile had been opened, and the passage of water down the canal was limited to what crept through or over the stone dam in the 17th mile. Mr. Wilks is trying to get a promise of relief coolies, or, failing that, of prisoners, to close the canal tight in the 19th mile to-morrow. So closes a season on the whole satisfactory.

The Government are now feeding at imperial expense a third of the population of Kurnool District. This could scarcely have happened had the ryots and Government not sacrificed the whole of the first crop, which the canal might have matured by irrigating their fields and filling their tanks respectively. This infatuation fortunately did not extend to the second crop, about a quarter of which will have been reaped under the already failing water-supply of the Toombudra.

Not ten years ago I have heard men standing highest in the Councils of the Madras Government, in both Public Works and Revenue Departments, argue that such works as this canal may not be considered imperial works, and cannot soundly be constructed except as local works; and that unless the rates realized by such works pay 5 per cent. on the outlay, the outlay is wasted and cannot profit the country. Just now one can hardly conceive such an argument: to the effect that no other such canal as this ought to be constructed from Imperial funds, until this canal pays 5 per cent. on its prime cost added to interest up to date.

Had the expenditure of five millions sterling on this canal, the Bellary Project, and the two reservoirs been completed, and the water supplied to ryots at a rate to pay cost of distribution, so as not to attempt to pay guaranteed interest with it, but simply to ensure its being used by the ryots, then the Government might have brought within the Ceded Districts all the 5 million sterling worth of grain which they now have to buy (or give others money to buy) from abroad, and the money would enrich the country. Not that I mean to say the Government would then have had to buy it, I only say that had the canal been constructed with their reservoirs as proposed by the Company, the Government by the middle of this year would have incurred a debt of 5 millions for food supply of the Ceded Districts, and would have that worth of canals and a brisk trade, and a mass of money in the districts; whereas now they have incurred or will incur a debt of 64 millions for the same object, and will this midsummer have an incomplete canal worth 14 millions, but lying nearly unused, a set of unsystematized, unbridged new roads worth about £300,000, a paralyzed trade, a mere remnant of the necessary stock of bullocks, and impoverished people.

Every effort is being made to hasten the mechanical processes of measuring, copying, and adding up the field returns; little measuring remains except for wet crop and some of the

*Proceedings of the Madras Government, Public Works Department,
30th January 1877 No. 292.*

later standing dry crops. So completely did the Revenue Department fail to register irrigation, that had a shower of rain, say 3 inches, fallen at a critical time at the end of November, half, or in some villages two-thirds, of the revenue due on irrigated land would have been lost. As it is, the growth of the crop was certain proof of the use of canal water. It is clear that more English assistance is wanted on the canal before a drier season arrives.

The first rain we have had for two months occurred three days ago. It was only 0.08 inch, but it laid the dust pleasantly.

(Signed) J. H. LATHAM,
Chief Engineer and Manager.

Returns of Area cultivated under the Canal, 1876-77, with special view to estimating approximately the quantity and position of the food grains when harvested.

Taluk.	RECORDED AREAS TO 31ST DECEMBER.			ESTIMATED AREAS FOR JANUARY.			
	Wet and Garden Crop.	Dry Crop.	Total.	Wet and Garden Crop.	Dry Crop.	Total.	
	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	
Ramalkota	941.78	88.54	1,030.32	500	500	1,000	
Nundikotkur	4,395.47	12,000.03	16,395.50	1,200	3,000	4,200	
Nundial	3,089.17	12,489.99	15,579.16	1,200	3,432	4,632	
Sirwell	2,609.70	17,101.01	19,710.71	..	572	572	
Koilkuntla	553.23	4,739.69	5,292.92	..	..	..	
Total Kurnool	11,592.45	47,339.71	58,932.16	1,700	9,004	10,704	
Predator	3,871.62	2,847.87	6,719.49	..	1,144	1,144	
Jammumadugu	498.79	1,673.33	2,172.12	..	420	420	
Cuddapah Taluk	3,388.00	1,780.00	5,168.00	..	836	836	
Total Cuddapah	7,758.41	6,230.70	13,989.11	..	2,400	2,400	
Grand Total	19,350.86	53,569.41	72,920.27	1,700	11,464	13,164	Total acres
Grand Total to 31st January 1877	..	..	..	..	..	..	86,016.27

KURNOOL.
Guess at the probable yield of the land irrigated by the Canal in grain food.

Type of Crop.	RAMAKOTA.			NANDIKOTUR.			NUNDAL.			SIRVELL.			KOLIKUNTILA.		
	Area.	Yield per Acre.	Total yield.	Area.	Yield per Acre.	Total yield.	Area.	Yield per Acre.	Total yield.	Area.	Yield per Acre.	Total yield.	Area.	Yield per Acre.	Total yield.
Rice	400	2,000	800,000	1,000	2,000	2,000,000	1,600	2,500	4,000,000	1,950	1,200	2,340,000	150	1,200	180,000
Vegetables and Indigo	750	1,200	900,000	2,800	1,200	3,360,000	2,050	1,200	2,460,000	550	...	...	...	...	...
Cholum	300	1,500	450,000	3,700	1,500	5,550,000	3,500	1,500	5,250,000	5100	1,500	7,650,000	1,400	1,500	2,100,000
Failure Cotton, &c.	600	1,000	600,000	5,750	1,000	5,750,000	5,800	1,000	5,800,000	7,700	1,000	7,700,000	1,850	1,000	1,850,000
	300	500	150,000	3,700	500	1,850,000	3,500	500	1,750,000	5,100	500	2,550,000	1,400	500	700,000
	200	...	...	1,900	...	...	1,700	...	...	2,500	...	...	700	...	...
Total	2,850	...	2900,000	19,450	...	18,510,000	18,250	...	1,876,000	22,900	...	20,240,000	5,600	...	4,830,000

CUDDAPAH.

Type of Crop.	PUDUCHUR.			JAMALMAGAN.			CUDDAPAH.			TOTAL FOR CANAL.		
	Area.	Yield per Acre.	Total yield.	Area.	Yield per Acre.	Total yield.	Area.	Yield per Acre.	Total yield.	Area.	Yield per Acre.	Total yield.
Rice	900	2,000	1,800,000	100	2,000	200,000	2,000	2,500	5,000,000	8,100	15,400	16,320,000
Vegetables and Indigo	2,450	1,200	2,940,000	350	1,200	420,000	950	1,200	1,140,000	9,350	7,200	11,220,000
Cholum	500	1,500	1,500,000	500	4,500	2,250,000	450	1,500	675,000	3,150	...	...
Failure Cotton, &c.	1,000	1,000	1,000,000	800	1,000	800,000	600	1,000	600,000	16,100	12,000	24,150,000
	1,000	500	500,000	500	500	250,000	600	500	300,000	24,550	8,000	24,550,000
	500	...	...	250	...	...	300	...	...	16,100	4,000	8,050,000
Total	7,850	...	8,240,000	2,550	...	2,420,000	5,950	...	8,330,000	85,400	...	84,290,000

SUBMITTED for the information of Government.

It is satisfactory to find that, notwithstanding the late date at which the ryots consented to make use of canal water, the extent of crop saved or of cultivation rendered practicable will be very important.

2. Mr. Latham's conclusions towards the end of the report assume a larger water-supply than was available in the Tonnbudra, and an influence over a far greater extent of country than all the Irrigation works he refers to would have affected.

3. The effect of the famine relief works in making it impracticable to obtain labor for canal work, and even for such trifling work as the damming of the canal in the 19th mile, indicates a too ready admission to the benefits of the relief funds and on much too easy terms.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

No. 601.

ORDER THEREON, 30th January 1877, No. 292.

IRRIGATION, No. 65.

RECORDED, and communicated to the Revenue Department for such consideration as under present circumstances may be necessary.

(True Extract.)

Lieut.-Colonel, R.E.,
Secretary to Government.

To the Chief Engineer for Irrigation.
" Chief Engineer and Manager of the
" Revenue Department. Irrigation and Company

Exd. E. C. Shunker.

70 Spare Copies

Vida C. N° 426/77

Revenue 1877 Sept
N° 1048
Govt. of 1877 Madras.
PUBLIC WORKS.

THE CHIEF ENGINEER, FOR IRRIGATION.

Dated January 30th.

Issued

Recd 3 Feb 77

Encl.

G.O., 30th January 1877, No. 292.

JANUARY.

Nos. 600-601.

N° 803

Communicated to
the Board of Revenue.

13 Feb 77

Upper and Lower Sections of the Madras
Irrigation and Canal Company. Reports of
the — for December 1876, recorded and
communicated to the Revenue Department.

To "The Board of Revenue" 9/10/77