

(1) Number of Pages.....12
(2) Date of repair.....11.6.1968
(3) Initials of the Referencer.....*[Signature]*

MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No.
B.P. No.

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Press
Mis.

Dated 1.4.1875 1967.

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*Proceedings of the Madras Government, Public Works Department,
24th March 1875.*

No. 582. Read the following endorsement of the Chief Engineer for Irrigation, dated Camp at Nellore, 27th February 1875, No. 11 :—

From J. H. LATHAM, Esq., Chief Engineer and Manager of the Madras Irrigation and Canal Company, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated Kurnool, 20th February 1875, No. 21.

January Reports.

I HAVE the honor to forward* copies of the Upper and Lower Divisions Reports together with my own for the month of January 1875.

* Per Book Post.

MADRAS IRRIGATION AND CANAL COMPANY.

MONTHLY REPORT FOR JANUARY 1875.

Upper Sections.

1. SEVERAL repairs and minor works were commenced this month.

About 5 miles of channels are nearly completed, and it is intended to complete some 5 or 6 miles more for which land has already been given over to the Company.

These channels, for the most part, will supply water to new areas, and are undertaken at the request of the ryots themselves.

2. There is now not a village in Ramalcoota Taluq commanded by the Canal, and in the Nandicothkur Taluq within the scope of our irrigation channels which has not taken water more or less.

A few more villages in the last-named taluq remain to be connected with the scheme, but special channels would be required to reach them.

While camped on the banks of the Bowanassy, the ryots of the villages on the north side came to ask for a channel to be made across to their fields, promising to irrigate 100 acres in each village, as their land is particularly good for paddy.

This would involve a large outlay of money and an expensive aqueduct across the river. Other villages however, such as Gootacondala, Yalagoda, &c., on the north of the Cautie, can be more easily reached, and, year by year, I hope we shall spread our channels to these outlying tracts.

3. Last year, an experiment tried in two villages, Permatoor and Karimadula, was said to have failed; in the latter village very little irrigation was taken up, less than 12 acres.

The whole of the reticulation or net work of channels, sufficiently numerous to reach every field in this village, was completed. It might be thought that the ryots were disgusted at having channels cut in all directions through their fields; but it seems they rather appreciate it, and have irrigated 87 acres of first crops this season in spite of the heavy rains, and other drawbacks experienced this year.

The Deputy Collector of Kurnool describes them thus referring to Permatoor: "The ryots of this village were in the beginning much opposed to canal irrigation and showed a disinclined spirit when the reticulation channels were excavated experimentally in their village along with the sister village of Karimadula."

If every village under the canal would but increase its irrigation at this rate from 12 to 87 acres, it would be well worth while to try the experiment on the whole irrigable area.

4. A comparative statement accompanies this report, showing the decrease and increase in every village under the canal in these sections. Some explanation is necessary as far as I can obtain it.

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The decrease in *Kulloor*, the village in which Kurnool Town is situated, is principally owing to the feeling of disappointment that the progressive rates, or the reduction of rate for new fields levelled and bunded, cannot apply to the lands already irrigated. The weather also delayed some ryots until it was too late.

The same applies to *Joharapooram*.

In *Satanicotta*, *Mallayala*, *Mudigutta*, *Bejinavemula*, it is said the villagers waited too long for the explanation of the rates. The rain then prevented many of them from irrigating. The first of these villages may have been prevented by the redly who last year was fined for taking water without entering it into the accounts. The others are poor miserable villages. A great part of these, I am told, is in the hands of Nundicotkur sowcars. No wonder they are a miserable lot of men ground down, as they are, by that curse of the country—the village sowcar. In a former report on the state of these ryots, it was implied that the canal passing through their villages had been the cause of all their misery.

Moochoomurry will be equal to last year, as there is some error in the accounts now given.

Palmarry—The land irrigated up to this was in black cotton soil. The heavy rains swamped it, so that they were unable to cultivate. Next year they intend opening up another part of the village more suitable to wet cultivation.

Beeravot—The same.

Peggudial—Some 20 acres have been given up to Government again on account of Sondeo: this was irrigated last year, and about 13 acres of new land tried turned out a poor crop owing to the soil; so it has been left this year uncultivated.

From this downwards to *Toorcherla* the advance has been very satisfactory.

Rudrarurum and *Pamulpaul* have increased each more than 100 acres of paddy and seem likely to go on increasing.

Toorcherla—A Police case in which nearly every man in the village was more or less interested happened just at the time of sowing, when the redly and several ryots were in Kurnool for some days.

Wanala—A decrease of 62 acres, principally caused by a difficulty, started at the settlement last year. The ryots cultivated in the bed of a vagoo which was irrigated by canal water, and had been handed over to the Company, but they appeared to think they ought not to have to pay for it as they were not aware it had been given over; and, although pleading ignorance, they were excused; they have entirely given up cultivating those lands. Next year they will probably think better of it.

Telepota—The very heavy rains alone are said to have impeded every kind of agricultural undertaking, and the gauge readings of this station fully prove it.

4. In *Nandial Taluk* there has been a very satisfactory increase, and there would have been more indigo watered had the rate for that crop been lower, or had there been a clear understanding of the rules relating to the monthly rates. This will, I hope, be made clear with some other unsettled points in time for next season's irrigation.

5. The portion of my sections in *Nandial Taluk* has been almost entirely opened up since 1872. A pioneer channel was run in that year to *Karimadula*, and another, the *Poolmuddy* channel, about 2 miles in length, was made in 1873. So that to many of these villages the idea of getting canal water is quite new. The *Poolmuddy* channel when completed will be about 11 miles in length, running through some very rich villages in which indigo is extensively cultivated. During February and March, I hope to complete, widen, and bridge this channel, so that it shall be in proper condition to irrigate the area it commands.

7. On the whole there is a very fair prospect of increase in irrigation next year, and I think that, considering the drawbacks which we have had to contend with this season, the actual increase is satisfactory.

The total increase in first crops is 904.02 acres.

„ „ Decrease „ „ is 484.10 „

Actual increase... 419.92 „

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24th March 1875.

The second crops are not all recorded yet. This is principally due to the absence of all the *Curnams*. They are all at their *talaq* towas where they have been for nearly two months for settlement of the dry crop assessment. Nearly all business connected with taking applications is therefore delayed. This seems one of the greatest evils of the new system. The ryots do not appear to know that they can obtain tickets by application to the Overseer or Amin; and, unless found out and urged to apply, they will remain without water.

8. *Repairs to Main Canal*.—Raising banks has been commenced in a few miles where needed.

The wall at *Ulloor* stop bank is completed.

Materials have been collected for a second-class bridge over the canal at *Ulloor*.

The bridge over *Cambalapully* outlet is about one-third completed, and the continuation of the outlet for 33 chains two-third done.

Repairs to lock mills will commence after the *Mohorum* feast, when, it is hoped, water will have disappeared in the lower locks generally. Large stones for these works are being quarried.

Other minor repairs have been taken in hands at various points.

9. The health of the staff has been good with the exception of my Surveyor who had a bad attack of fever. His absence from the work (as he is the only Assistant I have to level or survey) has rather delayed my preparations for work. The hot weather is coming on fast when personal supervision becomes more difficult and dangerous in such a climate as that of Kurnool.

The staff were paid from the 8th to the 16th January 1875.

(Signed) C. H. WILKS,

Conservancy Engineer.

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TABLE 1
 Effect of Temperature on the Survival of Adult Red-Backed Brigades for Seasons 1873-74 and 1874-75

[illegible][illegible]

Кемерово.
Физ. Естествен. 1973.

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

Effect of the Application for First Class received up to 31st February 1875.

Effect of the Application for First Class received up to 31st February 1875.

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Kusado, 9th February 1875.

Abstract of Applications for Second Crop received up to 5th February 1875.

KENNEDY,
 554 Litchfield, 1975.

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

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In the three upper taluqs Mr. Dunphy has made good progress in repairing the banks of main canal, so that very little remains to be done to them; the bridge approaches have also been properly repaired and metalled.

2. From the 139th mile to the 144th mile, there still remain some heavy repairs to be done, but the additions required to some of the miles can most economically be done after the water is out of the canal when the silt from the bed can be thrown up on the low portions of the banks; this cannot be done until April. From Iddymudica bridge to the 170th mile the repairs are nearly finished, and from thence to the end of the 9th section they are all well in hand.

3. In the 10th section the repairs required to the main canal banks have been very heavy, but all are now completed.

4. PENNAIR ANCIENT.—Ring dams have been formed round the two holes in the upper wall, and the water bailed out of the centre one. The materials needed for the repairs are ready, and the work will commence at once. Most of the coping stones washed off the crest have been recovered from the river bed, and, though some are broken, about two-thirds of them can be replaced.

5. **IRRIGATION.**—In the Kurnool District all the first crops are cut and have yielded a fair average of grain per acre. Second crops of paddy were commenced early in the month, and by its close 49852 acres had been sown, and 125 acres of floodings taken.

6. In Jummalamudugoo Taluq 109 acres in all have received canal water, and I except more.

7. In Prodatoor Taluq the crops of paddy are about half of them cut, but towards the commencement of this year many fields became suddenly blighted, and, though plentifully supplied with water, withered away and will prove nearly unproductive. About 15 per cent of the total sown have so failed.

8. In Cuddapah Taluk the floods of October last did much damage to the paddy crops by washing away the manure and depositing sand over the fields. Mr. Griffiths estimated that, out of 2,514 acres sown, about 542 acres are injured, or about 22 per cent. of the whole."

9. I submit a table of the irrigation up to date, framed with as much accuracy as is possible under the circumstances.

10. GENERAL.—Sickness has been very prevalent throughout the month. Fever more or less severe, has attacked nearly all the members of my staff. Mr. Duaphy has had frequent attacks which rendered him quite unfit for duty.

13. No rain has fallen during the month, and cold north-east winds have been very prevalent with heavy dews at night.

Done,
5th February 1875.

(Signed) A. J. DODSON,
Conservancy Engineer.

Chief Engineer's Report to accompany the Divisional Reports for January, 1875.

1. By the end of the year the cultivation of first crop may be considered determined on the ground, and no more increase will occur. The accounts showing what that area is have also by that time become closely approximate to the truth, at least in the Burned District. The state of

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the crops, their success and failure, may also be shrewdly estimated, and the averages guessed. The cultivation of second crop has since commenced, and no increase can take place, except in such as is meant to be irrigated by wells, after the cessation of the canal-supply.

2. Mr. Wilks gives a "comparative statement," on the figures of which great confidence may be placed, based on the care taken by the Revenue authorities, and the close examination and local knowledge of Mr. Wilks. To my mind it reads thus: In every village brought under the complete reclamation or diocetism of the channels properly constructed and bridged, the first natural fear that the village and its roads will be turned into a mess or morass ceases with the opening of the channels. In the first season experiments will be made; and these naturally but unreasonably, are likely enough to be on the side of the village nearest the canal, regardless of the quality of the soil, as if the water were not at first trusted to reach right across the village; and sometimes, from erroneous reasoning, will be made on worthless land, "waste," scratched with the plough point and unmanured on the same principle as that which actuates a very cautious Englishman to buy a cheap, useless horse, viz., that such an experiment cannot cost much. Thus Puggudal and Wanala made the latter mistake, and Palamurri and Boeravol the former, not of course in every field irrigated, but sufficiently to cause sensible disappointment, and to affect the success and spread of the irrigation.

3. In the second season for which full distribution is properly perfect in a village, with but very few exceptions, due to such errors as the above, the villages will cultivate a wet area which will, so far as our very short experience goes, be on the average nearly permanent, but will fluctuate about the mean value. This average or mean must indicate the largest area of wet cultivation of whose produce the villagers are able to dispose without much affecting the market, and it can probably only be increased by change of diet in the locality, by increase of population, and by export to a distance. It seems to me instructive to compare Nundial village with Chennur, both being typical villages. The former is situated at the junction of three main roads in a country of dry cultivation, and has 1,000 acres of wet cultivation under a large tank which has existed for generations. No doubt, more rice per head is eaten in this village than in neighbouring dry villages. No village near it has a tenth the population which has gathered into Nundial to the extent of 10,000 souls. Arrangements for the disposal of spare rice have had generations to mature. High roads have been made, markets established, and in some cases the higher class rice-eaters of villages 20 or 30 miles distant, have established connections by blood or marriage amongst the tank cultivators, and yearly exchange dry and wet produce with them. The Nundial men cultivate, including both crops, about 1,750 acres of wet crop; and last year (1873-74) did not cultivate an acre under the canal. This year they have cultivated 100 acres under the canal. Here we see a wet cultivation which apparently cannot increase, except owing to one of the causes stated above. Increase of water-supply has not sensibly increased it.

4. As a contrast, Chennur, a village of 3,750 souls, had no wet cultivation except from wells, or at least very little, until the canal water was supplied. It now cultivates 1,000 acres a year under the canal, but then a good road from the Cuddapah Town and Railway Station, 6 or 8 miles off, runs through the village. This cultivation will increase with increase of irrigable area.

5. At Nundial the water-rate under the tank has been recently reduced from Rupees 17 and under down to Rupees 4 uniformly levied. The Chennur men here, I am informed, still to pay Government a consolidated rate of Rupees 9 an acre for their land, just as if they used the wells and no longer needed; and they also pay Rupees 6 an acre to the Company on the same land. As a natural consequence the Chennur men are cheerful, animated, and intelligent; their village comfortable; their cultivation of rice varied in caste and treatment; and the farming worked day by day, by thinning, planting, treating the water with manure, &c., so as to produce the heaviest crop that the ground can support on the stalks without danger of the whole falling down into the water. The Nundial landholders are grumbling, lazy, and conceited; their village like a pigsty; and their cultivation confined to one, not a high, caste of rice, treated with unvarying monotony in a style already inferior to several of the newly irrigated villages in the district.

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24th March 1875.

6. The result seems to me highly encouraging,—speaking not as a prophet, but as manager of the concern. Though unable to predict early returns at all commensurate with the value of the canal, I feel perfectly secure in recommending a firm policy, and a maintenance of reasonable rates. I may incidentally remark that even now the chief grumbling is against the six rupee rate; but the best reasons for reduction are brought against the four and two rupee rates as being too heavy for the irrigation required and for the results obtained, where a few floodings might be used for getting an additional course of chhly pods, or of indigo stalks on an old crop. As next of importance I recommend every effort to lower the price of rice on the spot, in order to induce the villagers to eat it more. Its high price in reference to cholam must be broken down, and that can best be done by extreme facility for irrigation being afforded to every villager. This only will lead to such an increase of stock of rice as will break down the traditional relative prices of the grains, and will ensure rice being sold here at a rate in reference to cholam more proportionate to the cost of production, and will so secure for the canal and the consumer a share of the profits now going to the landlord in increased rent. For this purpose the ryot should be permitted to apply directly to a canal officer for water, instead of necessarily through the head reldies and curnums, landowners and magnates, whose interests may seem to them to be very different from his. The district should also be made more habitable by being opened up to the outer world, and a population should be encouraged to collect, corresponding to the advantages possessed by an irrigated country. Lastly, navigation should be started, and good roads made to connect the irrigated villages with each other and with the canal bridges. Such are the lessons I read from our experience so far.

7. There has been no rain this month.

Kurnool,
17th February 1875.

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

SUBMITTED to Government.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
Chief Engineer for Irrigation.

No. 583. ORDER THEREON, 24th March 1875, No. 826.

IRRIGATION, No. 39.

The foregoing reports, which contain many details of interest, will be recorded.

(True Extract.)

(Signed) Colonel, R.E.,
Secretary to Government.

To the Chief Engineer for Irrigation
do. and Manager, Madras Irrigation and Canal Company.
Collector of Cuddapah.
do. of Kurnool.
Revenue Department.

Ed. A. Grubert.
Spent Capital

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Revenue Department
Cuttack 1875
PUBLIC WORKS.

To

THE CHIEF ENGINEER FOR IRRIGATION.

cc. cc. cc.

Dated March 24th.

Recd April 1st

Encl.

G. O. 24th March 1875, No. 626.

MARCH

No. 582-583

14 Feb. 1875. O. S. 1875.

Similar to the one of the 14th March 1875.
The report on the work of the month of January 1875.

Comm. to the
Board of Revenue
1 April 75