M.R.O. 1—30,000—16-10-29.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 2070 Press ~~Mis.~~

372-373

Dated 16 th July 19 1869

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 16th July 1869.

No. 372. Read the following Proceedings of the Board of Revenue, dated 15th June 1869, No. 4,292 :—

Read the following letter from G. THORNHILL, Esq., Settlement Officer, to the Acting Secretary to the Board of Revenue, dated Camp at Varathayya-pollicm, 26th May 1869, No. 89.

I HAVE the honour to request you will be so good as to lay the accompanying Memorandum on the Kistna Delta before the Board.

2. Although I have not been called on for any report on this subject, I trust that my long acquaintance with the Kistna District, and the fact that I still stand appointed to it as Collector, will be sufficient excuse for my troubling the Board with this communication.

3. I fear there may be inaccuracies as to dates in parts of the Memorandum, but trust any such will be excused, as I am without the means of verifying my statements by reference to records of any kind whatever.

4. I am, however, anxious to submit briefly the result of my experience for the Board's consideration, without delay, as I have learned that a Commissioner is about to proceed to the district to investigate the matters treated of.

ENCLOSURE No. 1.

Memorandum on the causes of the check to the spread of wet cultivation on the Kistna Delta.

FROM papers which I have been permitted to read, it appears that during the last few years there has been a considerable check to the previous regular increase in the extent of land taken up for wet cultivation under the Kistna anicut, and that advantage has been taken of recent relaxation in the water rules to throw up a large extent of land hitherto classed as wet.

2. Various causes have been assigned for this result, in some cases it has arisen from the fact that some of the land brought under irrigation has turned salt ; in others it has been said that the supply of water has been precarious and unequal to the wants of the land ; again it has been stated, that the price of rice has not been high enough to render it so profitable a crop as many dry grains, the difference in the rate of assessment being considered, and by some it has been said that the apathy of the people prevents them from taking the extra trouble required for wet cultivation. With the exception of the last mentioned, I believe all the causes assigned, have more or less contributed to the result.

3. To understand the true motives for the apparent aversion of the people to take water, it is necessary to go back to the earlier days of the anicut, and to trace the progress of the works and the spread of irrigation from the first.

4. Owing to the height of the river banks above the crest of the anicut, it was not possible to apply any water to the land until the channels had advanced for about ten miles on either bank of the river ; it was at that distance that the first Locks were constructed and there that the river water first found its way to the surface of the land.

5. Both Engineer and Revenue Officers were naturally anxious to bring the water into use as soon as possible so as to show some return for the outlay. Every exertion was, therefore, made to induce ryots to make use of the water so supplied.

6. In this way land was first taken up near Kunhipaud on the Masulipatam side, and Doogralla on the Guntoor side.

7. It was found subsequently that the level of portions of land so irrigated was too high to be advantageously supplied with water, and much of it was subsequently abandoned and reverted to dry cultivation.

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8. Soon after this, the works were sufficiently advanced to enable supplies of water to be sent down the Poollasur channel on one side, and the Tungabudra on the other side, these old natural streams had previously been supplied with water from the Kistna during the floods by artificial heads, and had conveyed it to the old wet lands in Gudewada and Bapatla Talooks, the supply had, however, always been precarious and when they came to be fed with a regular stream from the anicut, the improvement was at once felt and a great impetus given to irrigation.

9. From that time forward great eagerness for water began to be shown, and corresponding efforts were made to meet the increasing demand.

10. Land was now greedily taken up on every side, and the Revenue rose steadily at the rate of about one lac a year. I think this went on from about 1857 or 1858, until 1864.

11. Prices kept on steadily increasing and everything betokened prosperity; the local rains as well as the river floods having been generally favorable.

12. It began, however, to be felt before the last year above named by the District Officers, that the demand for water was exceeding the supply. We were all, Engineers and Revenue Officers alike, anxious not to put any restriction on the spread of irrigation unless it was absolutely necessary, and so matters were allowed to go on, although in more than one year great apprehensions were felt that the crop would fail for want of enough water just at the critical period of the ear-filling in October.

13. On each occasion, however, a fortunate rise in the river or an opportune fall of rain saved it from destruction, but did not prevent losses in many tracts which, from being on a higher level, or otherwise unfavorably situated, could not receive enough water: distrust began to be felt of course in these quarters as to the powers of the anicut to supply all that was wanted.

"Soudoo" also began to show itself more abundantly than before.

14. The Engineers had never ceased to press for funds to widen the upper reaches of the canals, and so enable them to draw more water from the river, but the grants were seldom enough to do more than carry out the works planned and sanctioned for distributing the water over an increased area, and but little was done towards enlarging the main channels at their heads; there was also often difficulty in procuring labour for all the works sanctioned.

15. Another serious evil was found in the excessive setting of the upper reaches of the canals. It has been shown that these channels required increasing to supply the water needed, whereas, instead of being increased, they positively deteriorated, for, I think, I am right in saying that in no one season were the Engineers enabled with the labour at their command to clear them to their original depth, no doubt this evil has been much diminished by improvements carried out from time to time, but it exists to this day, and much of the labour of the district is yearly required to keep it under, and so while the extent of land taken up increased rapidly and the minor works of distribution proceeded, but slow progress was made towards rendering the main sources of supply capable of meeting the increased drain upon them.

16. Matters were in this state in 1864, in which year, I think the new rules for the levy of water-rate were published. Ryots had already begun to show a disposition to re-convert their wet lands into dry in places where "Soudoo" was beginning to show, and where the supply of water was uncertain.

17. The rules however were positive, that lands once entered as "Wet" could only be re-converted into "Dry" on the production of a certificate from the Range Officer to the effect that they were permanently beyond the reach of irrigation.

18. Some of the Range Officers interpreted these rules more strictly than others, and refused almost all applications; the Revenue Officers were of course obliged to frame their Settlements in accordance with the certificates of the Engineers, and much land was charged with water-rate as well as land assessment that had been left waste.

19. In the same year, 1864, the district was desolated by the cyclone, and although the dry crops suffered more than the wet, a disaster which swept off 22,000 men, women and children besides an enormous number of cattle and an untold amount of property, could not but seriously affect the prospects of the entire neighbourhood for years.

Proceedings of the Madras Government, Revenue Department,
16th July 1869.

20. The exceeding liberality of the public and of the Government, the former by charitable contributions and the latter by the freedom with which it granted remissions, enabled the people to resume their agricultural pursuits and to shake off much of the outward appearance of ruin, but it cannot be doubted that the prosperity of the past received a blow from which it will yet take years for the people fully to recover and which reacted in a measure in all the country around.

21. After the year 1864 the extent of "Soudoo" I think, considerably increased, and the demand for permission to reconvert their "Wet" lands into "Dry" was urged more strongly than ever, and especially in Repally Talook.

22. During the Jummahbundy of 1866, the matter was so pressed on me that I wrote to the Board in the terms quoted by them in their late Proceedings, urging the absolute necessity of greater liberality in dealing with this question.

23. About this time too or a year later, the works alluded to by the Superintending Engineer in one of his letters, namely, the calingulahs on the western bank channel at Kollur and Vellatur were completed at a considerable cost, when it was found that the ryots declined to take up any land under them.

24. These works had been admirably planned and executed on the supposition that the land commanded by them would be speedily converted into "Wet" indeed it was always understood by the Engineers that the ryots had expressed their desire that they should be constructed, and it was of course a source of great disappointment to all when they were found to be useless.

I was myself encamped for ten days at Kollur in 1867, and had much conversation with the people about the work: they explained that the land commanded by the Calingulah was the very best quality of alluvial dry soil, that it yielded them two crops of dry grains, and that, where water had been applied to land similar to it, the soil had so often been spoiled by Soudoo that they dreaded the experiment and positively refused to have anything to say to it.

25. Any one who has seen the western banks of the Kistna from the anicut Repally covered with Cholum, Indian-corn, Bengal-gram. Varagu, Coriander seed and all the varieties of pulse and garden crops, could bear testimony to its wonderful fertility, and it is not a matter of surprise that the ryots should shrink from an experiment which might give them increased returns for a few years, but which their experience told them was but too likely to convert much of their beautiful land into a desert.

26. Complaints of this nature were more frequent in Repally than in other talooks, owing, I think, to more of the fine alluvial Regar soil having been taken up for irrigation there than elsewhere, as well as to the fact that the soil in that talook was superior to the generality of the soil in Government lands elsewhere. It is in that talook, as I gathered from the papers, that the greatest extent of land has lately been given up.

27. The apparent aversion to take water has been by some attributed to apathy and idleness on the part of the ryots, who are said to prefer the less laborious, but less profitable system of dry agriculture to irrigation; I cannot see the smallest ground for any such supposition, the very history of the anicut is a refutation of it. We have seen the wonderful rapidity with which the surface of the district has been converted from dry land into wet under the influence of irrigation; for many years the Revenue rose steadily at the rate of not less than a lac of Rupees a year, almost all due to irrigation; and yet, because it is now found that part of the land answers better under dry cultivation than under wet, it is argued that the people are apathetic, and do not like the trouble!!

28. It has also been suggested that the quantity of rice grown is in excess of the demand of the district, and that prices elsewhere are not high enough to cover the expenses of export, the shipping ports being bad; I do not think that is likely to be the case, as the experience of the last few years is quite sufficient to have shown ryots and merchants that high prices may at any time recur, and I know that in the year 1863, the prices of Madras and elsewhere were high enough to drain the district of its rice to such an extent as to cause apprehensions that in supplying other countries, the Kistna was likely to suffer from scarcity itself.

29. The increase in the water-rate from 3 to 4 Rupees an acre has also been quoted as a possible reason, I do not agree with this either; 4 Rupees an acre is not, I imagine, too high a rate to pay for a full supply of water to land that is really suitable for irrigation.

30. The true and perfectly natural causes will, I think, be found to exist in the facts that in the early times of the anicut a great deal of land was taken up that is better suited to dry than to wet cultivation, that the people have gradually found out this, but that the rigid nature of the water rules have prevented them from remedying their mistake.

31. That in many places, whether from the level of the land or from defective distribution, water has not been supplied in sufficient quantity to produce a good crop, part of this may no doubt be due to want of due economy of water on the part of the ryots and to their inexperience in applying it (for it must be remembered that irrigation was absolutely unknown in many villages ten years ago).

Part is perhaps also due to the distribution being necessarily in the hands of subordinates of the Department Public Works, and not as is the case in old irrigation works of the villagers themselves.

32. That the ryots having long in vain endeavoured to free themselves from the necessity of continuing a system of cultivation which they have found not to answer, have, now that the option of relinquishing water has been given them, taken immediate advantage of it, fearing lest the privilege should again be withdrawn, and that, in order to retain that privilege, they systematically revert to dry crops every third year.

33. The course of events has of course produced a certain amount of distrust and suspicion in the minds of the ryots, and the first step towards restoring their confidence and towards a renewal of a healthy and natural state of agriculture must be to remove that distrust.

34 With this view, I would respectfully recommend, that for a period say of five years, perfect freedom should be given to ryots to re-convert their wet lands into dry on giving notice of their intention to do so by a certain given date, and that at the expiration of the five years, the rule should be so modified that any ryot, showing due cause either from the land turning Soudoo or from the insufficiency of the supply of water, should be at liberty to revert to dry cultivation.

35. By this means, in a few years it would be known what lands really answer best under irrigation, and what can be most profitably cultivated as dry, it would also be seen if Soudoo can or cannot be dissipated by any rotation of crop. It may perhaps be discovered that an alternation of dry and wet crops is better for the land and for the cultivator than the perpetual routine of wet or dry.

36. There is not the smallest doubt that enormous tracts of land admirably suited for wet cultivation still lie waste in the Kistna delta. It may be doubted whether the rich lands of the upper delta are suitable or not for wet crops; but there is no question that the semi-salt plains and marshes nearer the sea and the lower portions of the great sandy ridge which runs along the coast, only require water to make them first-rate paddy lands.

There is also the bed of the Colair Lake, which if drained, as it should be would offer an area of some 50,000 acres at least for cultivation.

My report to Board, dated April or May 1864.

37. If, therefore, the ryots find that it is more to their benefit to cultivate the rich river banks with dry crops, there need be no apprehension that there will not be ample space for wet cultivation independent of these lands.

38. In order, however, to give the greatest possible scope to the spread of irrigation, the means of disposing of the produce must be facilitated, and the outlets by sea and land improved.

Masulipatam.
Nizampatam.
Kottapolliem.
Ipurpolliem.
Motupalli and the mouths of the Kistna.

39. The ports of the district are none of them really good; but improvement might be made to some of them at a moderate outlay.

I.—Masulipatam, the shortcomings of this Port are well known; but still it carries on a large trade at times.

Proceedings of the Madras Government, Revenue Department
16th July 1869.

II.—Nizampatam possesses a very fine back-water, and Dhonies of small size load in the river and go to sea at spring tides; the capabilities of the port are not well known and a good survey of it is very desirable.

III.—Kottapolliem is much frequented by native vessels needing repairs, but is not a shipping port.

IV.—Ipurpolliem is an open roadstead with deep water close in shore, and a great deal of grain is shipped there at times. It sadly needs a good road to it, and that measures should be taken to prevent the godowns being overwhelmed in sand-drift, all approaches to it by land are through very deep sand: it would require both money and skill to give it good approaches and very extensive planting to check the sand-drift, but these two points gained, and it would be a very valuable outlet for the grain of the Guntoor delta.

V.—Motupalli resembles Ipurpolliem, from which it is 20 miles distant in all respects, and requires the same treatment. It was a thriving Port in the last century, when the Cirkars first came under British Rule. The old Town was destroyed by a cyclone, the present shipping Port consists of a cluster of godowns nearly buried in sand-drift close to the beach.

VI.—The mouths of the Kistna are closed to large vessels by the bars and shoals which surround them, within these bars they offer five sheets of tidal water of great depth; at times a considerable number of small Dhonies load at the villages on the banks and proceed to sea at high tides.

40. It is, however, on the land side that the greatest opening presents itself for improvement.

41. Large quantities of rice have of late years been sent from the Kistna delta to Hyderabad, Bellary and Kurnool.

42. There is a fair road from Bezoara to the former place, but it requires rice to rise to a very high price at Hyderabad and in Ceded Districts, to make it worth the while of merchants to send it by cart.

43. A Railway or Tramway from Bezoara to Hyderabad would, however, reduce the cost of transit and give an outlet for any amount of surplus produce both in the Kistna and Godavery deltas.

44. A short line of 180 miles over a country without an engineering difficulty would connect the capital of the Deccan with the canal system of the rice-growing deltas of the Godavery and Kistna, with the ports of Cocanada and Masulipatam and through them with the whole coast of the Bay of Bengal; it would also connect Bombay in a direct line with the nearest Port on the eastern coast.

45. The Political, Commercial, Military and Social advantages likely to follow the construction of this line seem so obvious, as to need no comment.

46. Another line, however, of inferior value to the above, has also suggested itself to me, namely, from the bank of the Kistna opposite Bezoara through Guntoor, Venuconda and Cumbum to Cuddapah.

47. This line would place the produce of the deltas at the disposal of Madras on one side and of the Ceded Districts on the other, and would give an outlet for the cotton of western Guntoor; but it does not offer the same advantages as that to Hyderabad.

(Signed) G. THORNHILL,
Collector of Kistna District,
on Special duty.

THE thanks of the Board are due to Mr. Thornhill for his valuable and interesting Memorandum.

2. The Board resolve to communicate it to Mr. Master, with reference to the Order of Government deputing him to report on the irrigation of the district.

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Proceedings of the Madras Government, Revenue Department, 16th July 1869.

No. 373. ORDER THEREON, 16th July 1869, No. 2,070.

Irrigation, No. 10.

THE Right Honorable the Governor in Council has perused with much interest Mr. Thornhill's interesting and able communication. Mr. C. G. Master, to whom the paper has been referred by the Board of Revenue, will doubtless give due consideration to the opinions and recommendations of an Officer so intimately acquainted with the Kistna District when submitting to Government his report on the special investigations on which he is now engaged.

(True Extract.)

(Signed) R. A. DALYELL,
Acting Secretary to Government.

To the Board of Revenue.
,, C. G. Master, Esq.
,, G. Thornhill, Esq.

Ed. E. C. Shunker.

REVENUE DEPARTMENT.

No. 2110

From Bd of Revenue

Dated 15th June 1869.

FOR ORDERS.

Forward records &c.
Requisite cancelled
on the usual, also application,
Creation and block Rs. Remitted for
Requisite & supplies &c required.
26 June 69

27/6/69.

25.6.69

Govt. of (1869) Madras.

REVENUE.

To

THE BOARD OF REVENUE,

&c., &c., &c.

Dated July 16th.

Read.

G. O., 15th July 1869, No. 2,079.

JULY.

Nos. 372-373.

Irrigation in Kistna District.—Proceedings Board of Revenue forwarding Mr. Thornhill's communication on this subject, with orders thereon.

Mr Hamilton's letter is very well written, & perfectly right but Govt. will not long keep their Bank Rhin for his alle communication the Board have directed him to make Lodgment.

On similar Letter from Madras Government

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No. 2070. R.D.

Proceedings of the Madras Government under date the 16th July 69.

Read the following Mins: of the Bd of Revs

N.E. 15 June 69 No 4292.

The Rt Honble the Govr in Council has perused with much interest Mr Thornhill's able communication. Mr C.G. Master, to whom the paper has been referred by the Board of Revenue, will doubtless give due consideration to the opinion and recommendations of an Offr so intimately acquainted with the Kistna District. when submitting to Govt his report on the special investigation in which he is now en-

? Interesting and

Work

14 F.R. Board of Revenue Mr Master Jr
1 " C.P. Master Esqr
1 " P. Thornhill Esqr

RWD.

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