M.R.O. 14—5,450—22-10-25.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 824 Press ~~Mis.~~

146-47

Dated 9—4— 1867

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 9th April 1867.

No. 146. Read the following Proceedings of the Madras Government in the Public Works Department:—

Passing orders on Revenue Proceedings, regarding the present condition and prospects of the Bellary District. (Here enter 9th April 1867, No. 1,092.)

No. 147. ORDER THEREON, 9th April 1867, No. 824.

Miscellaneous. Communicated to the Board of Revenue.

(True Extract.)

(Signed) J. GROSE,
Under Secretary to Government.

To the Board of Revenue, with Proceedings Public Works Department, No. 1,092.

Exd. T. O'Connor.

No. 185. Read the following Proceedings of the Madras Government in the Revenue Department :—

Passing orders on reports by the Collector of Bellary on the present condition and prospects of that district. } (Here enter 28th March 1867, No. 734.)

No. 186. ORDER THEREON, 9th April 1867, No. 1,092.

IRRIGATION, No. 9.

1. Communicated to the Superintending Engineer of the 3rd Division and to the Consulting Engineers for Railways and for the Madras Irrigation and Canal Company.

2. Adverting to paragraph 2, the Government note that an estimate of Rupees 12,720 for the improvement of the Narraindevakerri supply-channel was sanctioned in the Order of the 19th February 1867, No. 491. A sum of Rupees 4,000 was allotted for expenditure on the work during 1866-67, and the Superintending Engineer has been instructed to submit an early application for the funds required during the current official year.

3. Major Moberly will report when and under what circumstances the Petacottacheruvu tank was breached, the extent of damage which it sustained, what measures he would suggest for placing it in a state of thorough efficiency, and whether the cost of the proposed repairs can be met from the ordinary assignment for the year, or must be defrayed from funds to be specially allotted for the purpose.

4. The Government are glad to observe that the favourable reports which from time to time they have received of the generally good condition of the irrigation works in the district of Bellary are confirmed by the Collector, but they believe that some at least of the tanks are capable of improvement, either by enlargement of their capacity by additions to their bunds, or by the better provision to them of means of supply. The attention of the Superintending Engineer should be turned in this direction in communication with the Range Officers, and, selecting a few suitable tanks, he should submit plans and estimates for their enlargement and improvement in the manner indicated with as little delay as possible, and the Government hope to be in a position to grant whatever funds may be needed.

5. The proposal of the Madras Irrigation and Canal Company to construct a canal from Wallabapooram to Bellary for the irrigation of 150,000 acres of land is under the consideration of Government, and they are collecting from various sources such further information as is necessary to establish the practicability of the work, the advantages to be derived from it, the cost at which it can be constructed, and the return which it may be expected to yield.

6. The other projects which have been suggested for the extension of irrigation in Bellary by the fuller utilization of the waters of the Pedda Huggry, the Pennair, and the Chinna Huggry have more than once engaged the attention of Government; but, with the exception of the plans for constructing an anicut across the Pennair near Tirumany, and leading thence a channel to fall into one of the feeders of the Anantapoor and Singumalla tanks, supplying in its way several smaller reservoirs, and filling a large one which it was proposed should be constructed at a favourable site near Bookacherla, no schemes appear to have been

fully matured, although considerable expenditure was incurred in 1854, 1855, and 1856 on works to augment the supply of the Canacul tank from the Pedda Huggry.

7. This last scheme, originally springing out of the simple proposition to better the supply of the Canacul tank by the excavation of a channel to it from the Pedda Huggry at a cost of Rupees 3,000, expanded under the sanguine anticipations of the day into proportions embracing an expenditure of several lacs of Rupees, and contemplating the irrigation, direct from channels, of more than 50,000 acres of land. The Government have before them the papers relating to this project, and they observe that while the dimensions of the proposed anicut across the river, the capacities and slopes to be given to the channels leading from it to provide for a certain discharge, and other particulars were carefully studied, no attention appears to have been given to the question of the capability of the river to furnish the requisite quantity of water. It seems to have been taken for granted that the Pedda Huggry, having its sources within a region supposed to be within the influence of the south-west monsoon, possessed the never failing, almost perennial, properties of a river so situated, whereas recent and closer observation has shown that, rising immediately to leeward of the western ghauts, and traversing an almost rainless tract, the Pedda Huggry has not only a very deficient but a highly uncertain supply. Its discharge having been carefully registered for the years 1863, 1864, and 1865 for the purpose of determining what quantity of water would be intercepted by a dam at the Mauri Kanawai, it was found that only during 85 days in the first year, 39 in the second, and 42 in the third was water passing down the river in depths from one to seven feet. As the longest of these periods is not much more than half the time during which a rice crop requires to be watered to bring it to maturity, it follows that works designed on the supposition that the Pedda Huggry was capable of supporting continuous channel irrigation would necessarily have failed, and it is clear that the value of the river, as a certain and abundant source of supply, has been greatly exaggerated. The years 1863, 1864, and 1865 were not marked by any notable failure of the rains. These were both seasonable and ordinarily abundant, but in 1866 the river contained no water so long as the rains held off. All the other rivers were equally dry till the heavy fall of rain in October, and the Government are satisfied that no reliance can be placed in bad seasons upon the local rain-fed rivers of Bellary, and they are of opinion that, while not neglecting every effort to improve the supply of tanks which now hold no more than one year's consumption of water, it is necessary, if the calamitous results of a failure of the rains in that district can be ameliorated by the extension of irrigation, that the means of effecting that extension should be sought not merely in the enlargement of existing tanks and the bettering of their supply, as suggested by the Collector, but also in the construction of new and capacious reservoirs to collect and store up the surplus rain fall of a favourable season to supplement the defective one of another. It is not supposed that there are many tanks which, from the configuration of the country or in connection with the means of supply, can be advantageously enlarged, but the Government observe that Captain Fischer mentions that the Hoshully tank may be raised 35 or 40 feet, and it is likely that, if such be the case, there may be others similarly situated, which, by additions to their bunds, may be converted into reservoirs to contain two or more years' supply.

8. As regards new reservoirs, the Government fear that some difficulty will be found in discovering suitable sites. It is well known that where these exist in combination with a good source of supply, they have been already occupied, and the result of such investigations as have been undertaken have been to show that few new situations for the construction of serviceable storage basins are now to be met with. This has been confirmed by the operations of the Officers of the Madras Irrigation and Canal Company, who, entering upon their search for reservoirs in the belief that sites for them existed on almost every considerable stream, have at last by their inaction virtually acknowledged that favourable sites are not to be found in Bellary. Nevertheless, it will be the duty of the local Officers (who must necessarily be acquainted with the physical characteristics of the district,) to seek for those sites, and to lay before Government proposals for forming on them the reservoirs which are so urgently required.

9. Of the various projects which have been at one time or another referred to for the improvement of irrigation in Bellary, that above-mentioned in connection with the construction of channels from the Pedda Huggry to the Canacul and other tanks has been ordered to be held in abeyance in consequence of the ascertained defectiveness of the supply of that river and of the contemplated construction of a dam by the Government of Mysore across the stream to intercept the whole of the waters of its upper basin at the Mauri Kanawai. Should that dam be constructed, the usefulness of the river, as a source of supply to tanks in Bellary, will be very greatly diminished, but it may still, the Government think, be advantageous to carry out the original design so far as to construct a low dam across the river bed, and to excavate thence channels to supply the Canacul tank, and, if possible, that at Hoshully which Captain Fischer has recommended to be so greatly enlarged. The Superintending Engineer will consider this, and, at the earliest opportunity, will depute a qualified person to investigate the project.

10. With respect to the proposals for the supply of certain tanks from the Pennair, the Government observe that they were very reluctantly compelled to pronounce against the plans which, prepared by Captain Fischer when he was District Engineer of Bellary, were submitted to Government in 1864, through the Board of Revenue for the construction of an anicut across that river near Tirumany and the excavation of a channel from it towards the Bookacherla, Anantapoor, and other tanks. The grounds on which an unfavourable opinion of those plans was formed will be found expressed in the Proceedings of Government under date the 20th December 1864, No. 3,638. They were, that the anicut was of too weak a design, and that the channel, to carry water from it into the drainage which forms one of the feeders of the Anantapoor and other tanks, having to be carried across the intervening line of water-shed through a rugged and difficult country, had unavoidably to be taken along an exceedingly tortuous course, and necessarily required for its formation heavy costly embankments and deep cuttings through hard stony soil, or, may be, through rock. The rates on which the estimates were based were also manifestly too low, and they, with the plans, were returned for revision on a re-investigation of the scheme. This re-investigation is now in progress, but the Superintending Engineer having reported that the line laid out by the Officer conducting the survey is so tortuous as not likely to answer, it is feared that the difficulties

which the Government perceived beset the execution of the work are of a nature not to be easily surmounted. A final report is awaited, and should it hold out any fair prospect of the project being advantageous, His Excellency in Council will gladly submit it for the sanction of the Government of India and for the provision of the necessary funds.

11. Two other projects on the same river are mentioned as likely to be beneficial. They are the construction of dams near Roddum and Hindoopoor to feed channels to be led to tanks at those places and to be carried onwards to the Anantapoor and Singumalla tanks. The surveys formerly submitted with the Bookacherla project, noticed in the preceding paragraph, showed that a range of broken hilly ground separates the water-shed of the Pennair from the drainages which run eastward towards Anantapoor. From an inspection of the map, it would appear that this range extends, at a greater or lesser distance, along the right bank of the Pennair to above Hindoopoor, and the Government apprehend that it will offer the same difficulties to a prolongation of channels from anicuts at that place or at Roddum that the same range has been found to oppose to the formation of a channel to Anantapoor from an anicut at Tirumany. This, however, can only be determined by examination and careful survey, and the Superintending Engineer will take measures for having these made at as early a period as possible, reporting the result.

12. The Government have nothing before than to enable them to judge of the feasibility or advantage of undertaking the construction of the works, which have been alluded to as likely to be practicable, to collect and store the waters of the Chittravutty, the Hindry, and Chinna Huggry, but the Superintending Engineer will, as soon as he can place the examination of these streams in the hands of a competent establishment, report upon their capabilities.

* G. O. No. 2,776, 20th September 1865.
,, ,, 864, 20th March 1867.
Memorandum No. 61, 19th March 1867.

13. Major Moberly has already been called* upon to report upon the Toongabudra anicuts and channels, and more especially as to the advisability of completing those at Moodulkutta, Soogoor, and Munchala.

14. In separate orders, the services of Mr. Brosnahan have been placed at the disposal of the Superintending Engineer for employment as he may be pleased to direct, and as this will strengthen the establishment of the district, it is hoped that Major Moberly will give early effect to the orders contained in these Proceedings.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 3rd Division.
,, Consulting Engineer for Railways.
,, Do. do. for Irrigation and Canal Company.
,, Revenue Department.

Exd. S. T. Augustin.