(1) Number of pages 6.

(2) Date of repair 23. 6. 81.

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. / ~~B.P. No.~~	5559.	Press. / Mis.
Dated	18. 9. 1877	~~197~~ .

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Archives 1—10,006—19-4-79.

555-9/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

1st September 1877, No. 282 I.

Irrigation.
Account.

Read the following papers.—

No. 5. From the Supg. Engr., Godavery, dated 26th January 1877, No. 3,052.

No. 5-A. To do. do. do. 12th April 1877, No. 67 GD.

No. 5-B. From Major J. BEATTY, R.E., Officiating Superintending Engineer, Godavery District, to the Chief Engineer for Irrigation, dated Camp, Dowlaishweram, 30th July 1877, No. 1,396.

I HAVE the honor to furnish the information called for in your memorandum No. 67 GD of 12th April 1877, regarding the proposed new channel from sluice No. 1 on the Samulcottah canal, together with a revised estimate and report by Assistant Engineer Mr. deWinton.

1 Report by the Range Officer.
1 Sketch Map.
1 Revised Estimate.
1 Longitudinal Section.
1 Cross Sections.
1 Statement.

2. Your recollection of the circumstances the new distributaries of the Samulcottah canal were intended to supersede is quite correct, and the case of the distributary in question is not different from that of the others.

3. Lieutenant Campbell I find, from a personal inspection of the canal bank and inquiries now made, was not quite correct in stating that the acreage to be supplied from No. 1 sluice is already *well* irrigated by eight old masonry sluices and channels. The whole area commanded by that part of the Samulcottah canal has been, or can be, irrigated by the old sluices and spouts, and in such a manner as a ryot probably would call *well* irrigated, which is a very different thing from what an Irrigation Officer would think so. The fact is that No. 1 sluice is situated about 970 yards below the 5th mile-stone, the distance from it to the Medapad bridge is a little over 4 miles, and in that distance there are ten old masonry sluices, besides two palmyra spouts, six of the old sluices are $1\frac{1}{2}$ feet square, and the remaining four are 1 foot square. These sluices have no means of regulation; they are bunded in the dry season, opened at the beginning of the irrigation season, and remain open till its close. If they were supplied with shutters the ryots would not use them; they would probably keep them in the village.

The canal water pours through those twelve sluices during the whole of the irrigation season, and the surplus after feeding irrigation escapes by a drain that falls into the Cocanada canal below the Medapad lock. Mr. deWinton writes, none of the old masonry sluices have shutters, grass and mud doing duty for them. But from the inquiries I have made, I do not believe that those sluices are ever closed during the irrigation season.

4. From the expression made use of by Lieutenant Campbell, "eight old masonry sluices and channels," it might be supposed that there were eight channels that had been made and were now kept in order by this department. But this is not the case; the channels consist of a number of bodies, *i.e.*, small field channels made and maintained by the villagers; consequently this piece of irrigation at present costs Government nothing, either in repairs or supervision. If a side channel be constructed from No. 1 sluice, it must be made and maintained at the expense of Government; the villagers will do nothing towards maintaining it; on the contrary, owing to their fondness for bunding and breaching, the difficulty will be to prevent them making it more or less inefficient. This is the one drawback to the proposed channel; it must be made and maintained, where Government has hitherto been at no expense; but I consider this necessary in the interests of irrigation further down the Samulcottah canal, as fully explained by Mr. deWinton.

5. As regards all the acreage to be supplied being already irrigated, Mr. deWinton, who has carefully examined the ground, believes that the whole or nearly all will be under wet cultivation this season.

6. Your recollection of the position of this channel is not quite correct. This part of the Samulcottah canal is not opposite to that part of the Cocanada canal below the Medapad lock. I send a tracing showing the position of No. 1 sluice at about 5½ miles Samulcottah canal and the levels of the ground commanded by it. Medapad bridge is at 9¾ miles on Samulcottah canal, and Medapad lock at 9½ miles on Cocanada canal. "With regard to the two alternatives of making No. 1 channel a side channel or of running it to meet the 3 feet contour," Mr. deWinton makes the following observations: "In the first instance it will take up all the land now irrigated or irrigable by the old sluices and palmyra spouts. In the second instance it will take up most, if not all, of the area now irrigated by the Cocanada canal; but a large portion of the area now watered by sluices and spouts from the Samulcottah canal would still have to be watered by them, the fall of the ground precluding irrigation from No. 1 channel if carried on the alignment proposed by the Chief Engineer."

7. Mr. deWinton has revised the estimate allowing for a bank of only 2 feet above full supply level, which he takes to be 36·30.

8. In reply to the last paragraph in your memorandum, I am of opinion that the channel should be constructed, and that the proper line for it is parallel to the Samulcottah canal bank.

From W. B. DEWINTON, Esq., Assistant Engineer, Eastern Delta Division, Godavery, to Major J. BEATTY, R.E., Superintending Engineer, Godavery, dated Camp, Samulcottah, 26th July 1877, No. 287.

1 Revised Estimate.
1 Original do.
1 Cross Sections.
2 Longitudinal Sections.

In reply to your Nos. 962 of 25th June and 1,143 of 9th July, I have the honor to report that I have on the 21st instant inspected the Samulcottah and Cocanada canals from 4th to 9½ miles, and the area irrigated thereby in order to ascertain the exact nature of the existing irrigation arrangements and to enable me to report as requested on—

(1.) The necessity for No. 1 channel, Samulcottah canal.

(2.) The cause of such necessity whether increased area or more perfect control of irrigation.

2. The existing irrigation arrangements are as follow:—

In the Cocanada canal bank there are ten palmyra spouts at 5½, 5⅝, 5¾, 6, 6¼, 6½, 6¾, 7, 7¼ and 9 miles, and a masonry sluice (Medapad north side channel sluice) at 7½ miles.

In the Samulcottah canal bank there are ten old masonry sluices at 5¼, 5½, 6¼, 6⅝, 7⅛, 7½, 8¼, 8½, 9 and 9½ miles, two palmyra spouts at 7⅛ and 7⅝ miles, and the new sluice at 5½ miles which is opened sufficiently to supply the fields immediately adjoining.

3. From the greater portion of these sluices and spouts there are small field channels or "bodies" dug by the ryots which however serve more to guide than to contain the water, which is allowed to flow over the fields in every direction unrestrainedly.

4. By these sluices and spouts, with the exception of a narrow strip of land running parallel and close to the Cocanada canal, partly waste and partly under dry cultivation, and of a small tract of waste land surrounding a tank at 8½ miles Samulcottah canal, the whole of the area contained by the two canals from 5¾ miles to the Medapad road is under wet cultivation, and the transplantation is nearly completed.

5. From 8½ miles to the road the cultivation is pretty evenly divided between the two canals by a drain running down the centre of the tract.

At 8½ miles this drain is cross bunded, and from this point to 5¾ miles the Samulcottah canal does most of the irrigation, that under the Cocanada canal being confined to a long strip running parallel to it and about a furlong broad. From 5½ to 5¾ miles there are a few acres of wet cultivation watered by two spouts in the Cocanada canal and the new sluice in the Samalcottah canal. Above this point to the bifurcation of the two canals at 4th mile there is no wet cultivation whatever.

6. Such being the existing irrigation arrangements, I have the honor to offer the following remarks on the necessity for excavating No. 1 side channel, Samulcottah canal.

(*a*) *Will it increase the area under wet cultivation?*—The only tracts at present uncultivated are the exceptions mentioned in paragraph 4 and the triangular piece of ground from 4 to 5½ miles. The former are being partly taken up this year, and their whole area could be easily irrigated with the present supply whenever their owners chose to do so.

The latter, it will be seen by reference to the area statement, I submitted with my No. 184 of 17th June, includes the chief part of the increase therein shown as probable in Jagurupad and Kitaveram limits; but on personal inspection I am of opinion that the greater part of this land is too high to be irrigated successfully from the average level of water in the canals, and I do not think it is ever likely to be taken up. Certainly it could never be irrigated from No. 1 sluice, Samulcottah canal. With regard to the increased area in Medapad limits shown in that statement as likely to be taken up, it either does not exist or it has been taken up this year. This I could not discover, as the Curnams of the villages in question, although ordered to meet me on the 21st, were as usual absent in attendance on their Tahsildar.

I cannot, therefore, recommend the excavation of No. 1 channel, on the grounds that it will bring a larger area under cultivation.

(*b.*) *Will it render the system of irrigation more perfect?*—The whole of the area between the two canals, with the exception of the triangular piece extending from 4 to 5½ miles is being or can be irrigated by the existing arrangements, and at the present moment is receiving a very ample supply.

Nor can it be said that any water is wasted, because the only outlet for the drainage and surplus water of this tract is at its south-east corner, where it passes under the Medapad road and into the Cocanada canal immediately below Medapad lock.

Thus, as far as the Cocanada canal is concerned, there is no great necessity for a more perfect system of irrigation. I have ordered a spout at 7½ miles, which appeared to be wholly unnecessary, to be removed, and some improvements to Medapad north side channel, which has at present to be supplemented by a spout in 9th mile, are needed and will be carried out. With regard to the Samulcottah canal it is a different matter.

The water in this canal seldom reaches full supply level, except when the rains bring down upland drains, owing partly to the bank canal taking more than its fair share of water; but more especially, I am certain, to the imperfect irrigation arrangements. None of the old masonry sluices have shutters, grass and mud doing duty for them, and consequently the ryots take water when and in such quantities as they please. They are at the present moment taking far more than is needed for the area cultivated, and their lands are all flooded. The water report of the 20th shows only 4 feet 5 inches instead of 7 feet 0 inches on Samulcottah lock upper sill, with full supply on head sluice rear floor; and I feel sure that, unless the irrigation arrangements are better regulated, the water in this canal will never be made to do its proper duty. Add to this that the line proposed and the fall of the country from 5½ to 9½ miles are admirably adapted for a side channel, and that the latter could irrigate the whole of the land at present under cultivation with very much less expenditure of water, and I think that the necessity for its excavation is fully apparent, and I have the honor most strongly to recommend its adoption. The revised estimate is sent herewith.

No. 143 I.

No. 5-C. *Note by the Chief Engineer for Irrigation.*

IT being doubtful whether the discharge of small channels is not considerably less than has been supposed, and the quantity of water required as a maximum being

one and a half times the ordinary supply of 2 cubic yards an acre an hour, it will be advisable to make the bottom width of this channel 1 foot more than is provided for in the estimate. This will add 70 Rupees to the cost.

CAMP AT THATTAKARY, 21st August 1876.

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

To the Joint Secretary to Government, Public Works Department, Irrigation Branch.

No. 6. ORDER THEREON, 1st September 1877, No. 282 I.

THE following estimate is sanctioned against the lump-sum provision for distributaries in the sanctioned estimate * for the Samulcottah canal :—

* Rupees 1,31,200, G O., No. 2,854, dated 28th November 1862.

GODAVERY DELTA SYSTEM.

EASTERN DELTA SECTION.

Samulcottah Canal.

Capital Extraordinary.

Distributaries.

L, Earthworks.

Cutting channel from No. 1 sluice at $5\frac{1}{2}$ miles on the canal.

Amount of estimate, Rupees 1,320.

To be carried out by the Public Works Department.

2. This sanction has been registered as No. 133 I of 1877-78.

(True Extract.)

Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the District Engineer, Godavery.
" Collector of Chingleput.
" Chief Engineer for Irrigation.
" Examiner of Public Works Accounts.
" Revenue Department.

Exd. F[illegible]banker.

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Revenue Depart.t

No 24040

IRRIGATION.
ACCOUNT.

Govt. of {1877} Madras

PUBLIC WORKS.

To

THE DISTRICT ENGINEER,
GODAVERY,
&c., &c., &c.

Dated September 1st.,

Issued

Recd. 17 Septanber *Encl.*

G. O., 1st *September* 1877, *No.* 282 I.

SEPTEMBER.

Nos. 5-6.

Samulcottah Canal, Godavery District.—Sanctions estimate for cutting channel from No. 1 sluice at 5½ miles on the—

No 5559
Comm.r Cotts
Board of Revenue
10 Oct 77

67 to Irrig.n Revenue 17-9-77