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# TAMIL NADU ARCHIVES

## GOVERNMENT OF TAMIL NADU

REVENUE DEPARTMENT

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| G.O. No. / ~~B.P. No.~~ | 1988 | Press. / Mis. |
| Dated | 14-8-1878 | ~~197~~ . |

*Not to be folded or roughly handled*

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

16th July 1878, F.R. No. 1,552.

**Famine Relief.**

Read the following paper :—

No. 277. Endorsement of the Chief Engineer for Irrigation, dated Ootacamund, 5th July 1878, No. 97-W.

Read the following letter from Lieut.-Colonel H. L. PRENDERGAST, R.E., Officiating Superintending Engineer, North Arcot, to Lieut.-Colonel JOHN MULLINS, R.E., Chief Engineer for Irrigation, dated Vellore, 10th June 1878, No. 1,213.

In reply to your Memorandum, No. 46 N.A., dated the 27th ultimo, I have the honor to report that a better line has now been selected in preference to that originally taken, for the branch channel from the Sholinghur tank to Karikal tank. The line as now proposed and shewn on the accompanying sketch map, skirts round the slopes of the hills, without going through the nunjah lands below the Sholinghur tank. I enclose an approximate estimate of the works necessary; a list of masonry works and cost roughly calculated; a financial statement showing the expected profits; and a section in two sheets, showing the line of channel.

1 Sketch.
2 Sections.
1 Approximate Estimate.
1 Financial Statement.
1 List of Masonry Works.

2. The area of irrigated land to be commanded by the channel is 1,887 acres. The channel commences from the Southern margin of the Sholinghur Tank; and at four chains from the beginning of the cutting, the head sluice is placed with its sill three feet below the level of full tank. Two vents of five feet width, and two feet depth, will discharge 141·4 cubic feet per second when the tank is full.

To avoid embankments and wet land, the channel runs to the Takkum Gunta and has a fall of three feet per mile. Two large nullahs cross the line of channel, but the first can be diverted into the next nullah; for which an aqueduct is provided. A bridge will be required at the crossing of the road from Sholinghur to Arcot. From thence to the Takkum Gunta the channel runs at the foot of the hills, and the rain water comes down with great velocity from the bare rocks; two syphon sluices are shown on the section, to convey the channel below the surface where there will be a great rush of water; but I am not sure if the drainage had not better be passed across the channel by escapes; and this point is left for further consideration. An escape must be provided in the Takkum Gunta to carry off its surplus from the natural supply from the hill close by. The channel as far as the Takkum Gunta, is given a bottom width of twelve feet, side slopes one to one, and depth three feet.

The channel leaves the Gunta on a level four feet below that on which it enters it; so that there is a margin of one foot, to allow for the piling up of rain water from heavy rain. The second section of the channel has a fall of five feet in the mile; and there is then a drop of 4·88 feet, to allow of the channel passing under the supply channel of the Pandiyanellur small tank. With the extra fall, the bottom width of the channel is reduced from twelve to nine feet. Before coming

to the drop, there are required five aqueducts, to convey supply channels over the channel, and two road dams at the crossings of roads.

Below the drop, not more than two-and-half feet fall per mile can be given, down to the Karikal Tank and the channel is widened again to twelve feet at bottom; an aqueduct, two sluices and a road dam come within this third section of channel.

3. Thus far, the approximate estimate for the channel is Rs. 8,000, with Rs. 5,780 for masonry works, and Rs. 930 for embankments, &c., or altogether Rs. 14,900.

The extension by a sluice to the Ayapedu Tank, and southwards to the Talikal small tank, is not definitely determined; while the surplus of Karikal falls into Viramputtur small tank and can be taken on to the large tank of the same name, and the Talikal large tank. These extensions are taken roughly to cost Rs. 3,900; and with items of sundries and compensation for land, the total amount comes to Rs. 20,000. By the Tahsildar's statement there will be an increase of revenue of Rs. 999 from the Karikal Tank alone; and of Rs. 1,100 from the Viramputtur branch; or ten per cent. on the outlay, allowing a margin of excess expenditure of five per cent. A further profit will be obtained by securing a full supply of water to the other tanks, for which no increase in ayacut is put down.

4. The plans of bridges, &c., are now being drawn out; and if the project meets with approval, the estimates will be sent in, as now contemplated.

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SUBMITTED for orders with reference to—

Official Memo. No. 278, 24th May 1878, from Addl. Secy., R. (F.) D.
Do. „ 67-W, 27th May 1878, from do. do.

The Superintending Engineer has submitted a sketch map, longitudinal sections and an approximate estimate for cutting a channel from the Sholinghur tank, which is supplied in part from the Poiney anicut, to the Karikal, Ayapedu and other tanks.

The approximate estimate amounts to Rs. 20,000.

2. The investigation has been carefully made so far as it has been carried, and though the longitudinal section is somewhat incomplete owing to depths of cutting, proposed bed level, &c., not having been filled in, the circumstances are intelligible.

3. As a project for execution under ordinary circumstances, the information obtained would not be considered sufficiently complete, as there is nothing to show the circumstances of the water-supply or whether the channels above the Sholingur Tank are of adequate capacity to convey the water that will be needed for the extension. Should, however, employment for famine labor be needed before the scheme can in such respects be made complete, it may be considered perhaps unobjectionable to commence the work, as, though the financial results may be less than those indicated in the papers, the connection of several more tanks with the Poiney is sure to be more or less beneficial.

In the "Financial statement of project" it is shown that 729 acres additional are available for irrigation if water can be supplied, and that the resulting revenue would be Rs. 2,099; also that the average revenue of the tanks to be connected with the new channels is Rs. 764 below the ayacut assessment.

Moreover, the channel is designed to carry a larger quantity of water than the total acreage, including the extension, viz., Acres 1,887, is likely to require, and further extension may therefore be found feasible. What the quantity of water to be conveyed per second for a given acreage should be would depend upon the duration of the supply or discharge, and on this point there is no information in the papers.

1988
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4. The bed level of the channel for the first ¾ mile or down to the Takkan Gunta appears to be appropriate. Below this point it is lower than is desirable and the depth of cutting is consequently great. It may be gathered from the section and other information given, that the object has been to facilitate disposal of cross drainages, conveyance of irrigation water across the channel, &c., and it cannot be stated from an inspection of the section whether, were the bed levels re-adjusted, the saving on earthworks would involve a greater expenditure on masonry. Unless some considerable saving in total cost could be secured by reducing the depths of cutting, it will be an advantage to keep the quantity of earthwork large and the masonry low, if the scheme is to be used for famine relief labor, otherwise cuttings running up to 20 feet and generally several feet greater than the depth of water to be carried, are not desirable.

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

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No. 278. ORDER THEREON, 16th July 1878, F.R. No. 1,552.

Miscellaneous.

HIS GRACE the Governor in Council is disposed to sanction the work, if the Chief Engineer for Irrigation is satisfied that there is a sufficient supply of water to ensure the existing wet ayacut against prejudice.

(True Extract.)

(Signed) J. H. GARSTIN,
Additional Secretary to Government.

To the Chief Engineer for Irrigation, with three enclosures.
„ the Public Works Department.
„ the Financial Department.
„ the Board of Revenue.
„ the Collector of North Arcot.

Exd. A. Raitt.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

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31st July 1878, F.R. No. 1,656.

**Famine Relief.**

Read the following paper :—

No. 520. No. 110-W.

MEMORANDUM.

THE construction of the channel from the Sholinghur Tank, referred to in G.O., R. (F.) D., No. 1,552, of the 16th July 1878, will not prejudice the existing wet ayacut under that tank, or any other existing ayacut, if the head sluice be opened to supply the channel only when the Sholinghur Tank is full or nearly full. It is principally to secure such regulation that a head sluice is required and is to be built. The remarks on water-supply contained in this Office No. 97-W, of the 5th instant, refer to the question whether the water over and above the requirements of the Sholinghur Tank will be adequate to the irrigation of the land, for the benefit of which the channel has been projected.

OOTACAMUND, 19th July 1878. (Signed) JOHN MULLINS, Lieut.-Colonel, R.E., Chief Engineer for Irrigation.

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No. 521. ORDER THEREON, 31st July 1878, F.R. No. 1,656.

Miscellaneous.

A REPORT on the value, &c., of the work will be called for in the Revenue Department.

(True Extract.)

for Additional Secretary to Government.

To the Revenue Department, with copy of G.O., No. 1,554, dated 16th July 1878.
" the Chief Engineer for Irrigation.
" the Public Works Department.
" the Financial Department.
" the Board of Revenue.
" the Collector of North Arcot.

Exd. F. R. Bantleman

4 Spare Copies.

Revenue 1878 Despth

No. 3483.

Govt. of {1878} Madras.

REVENUE.

To

THE REVENUE DEPARTMENT,

&c., &c., &c.

Dated July 31st.

Printed August 5th.

Read —— 9.

Encl.

G.O., 31st July 1878, P.R. No. [illegible].

JULY.

Nos. 520-521.

*Channel from the Shidinghur Tank to the Karikal and other tanks in North Arcot.*—Stating, with reference to the opinion of the Chief Engineer for Irrigation as to the influence of a —— on the condition of the wet ayacut under the Shidinghur Tank, that a report on the value, &c., of the work will be called for in the Revenue Department.

No 1944

Recorded

14 Aug 1878