

ORDINARY, MS.

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|-------------------|---------|
| Public DEPARTMENT |         |
| G.O., DATED       | 20-6-98 |
| No.               | 493     |

INDEXED.

*When given for copying.*

[Despatch Abstract.]

*According to P.H.  
 left the city that the  
 project of supplying  
 the Palmaras tank  
 & maintaining a drunk  
 - in water supply to  
 the town is not me  
 for consideration of  
 fort either from a  
 financial or engineer-  
 ing point of view.*

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation,  
Account.

READ—the following papers :—

G.O., dated 23rd August 1892, No. 711 I., Public Works.

From Major A. W. SMART, R.E., Superintending Engineer, IV Circle, to the Chief Engineer for Irrigation, dated 17th May 1893, No. 122 E.I.

With reference to G.O., dated 23rd August 1892, No. 711 I., I have the honour to submit herewith report on the Panjani tank project by Mr. Larminie, late Executive Engineer, North Arcot division, with which, as far as regards the Panjani project, I fully agree. I am, however, of opinion that the run off from the Gudiyátam drainage basin has been considerably understated. This is, however, a matter which will be gone into when the Murthana reservoir project is fully investigated. It may be taken that the Panjani, part of the scheme is out of the question, would not pay and as to water-supply to the town of Palmanér would fail in bad years.

2. In ordinary years no doubt such a tank would supply from 500 to 800 acres, but to place a bank across a stream draining over 300 square miles, when the run off of 20 square miles only is wanted, is a wasteful proceeding and necessitates large and generally expensive escapes and is in other ways objectionable.

ENCLOSURE.

From J. C. LARMINIE, Esq., Executive Engineer, North Arcot division, to the Superintending Engineer, IV Circle, dated 6th May 1893.

In reply to your endorsement No. 517 N.A., dated 12th September 1892, forwarding G.O., No. 711 I., of 23rd August 1892, issuing orders for the investigation of the project for a supply of water to the town of Palmanér, I have the honour to report as follows :—

(1) The question was gone into in considerable detail in the year 1878, when a special officer, Captain Elliston of the Bengal Public Works Department, was employed on its investigation. The results of his works are embodied in G.Os., Revenue F.R., Nos. 1241 of 30th May 1878 and 1886 of 3rd September 1878, and on the strength thereof the scheme was definitely condemned.

Having only just recently had an opportunity of inspecting the locality, I beg to submit the following observations for consideration before proceeding further with the investigation.

On the 14th and 15th April I examined the country along the Gudiyátam river to the north of Palmanér and to above the point on the river proposed for the offtake of the channel.

(2) The general characteristics of the catchment basin of the Gudiyátam river are very similar to those in the Mysore country, where, in connection with the Bangalore water-supply question, I had opportunities of becoming acquainted with the proportion run off and discharge bears to the varying conditions of rainfall.

(3) The rainfall register at Palmanér for the eight years 1885 to 1892 shows that on the whole the supply in the Gudiyátam river must be just as uncertain and liable to failure as any of the sources of supply around Bangalore.

(4) So much depends on the character of the rainfall. Now and again sudden very heavy falls have occurred which must have brought heavy floods down the river, but the prevailing characteristic of the rainfall is light and not very continuous showers which have but little effect in filling tanks or rivers.

(5) The average rainfall at Palmanér for the eight years 1885 to 1892 was 39.91 inches. The highest record 51.51 inches was in 1889 and lowest 31 inches in 1885.

Of the average fall 39.91, no more than 25 inches could be considered as likely to produce any run off and data worked out in Mysore show that not more than from 10 per cent. to 15 per cent. of the average fall could on the average be counted on as available for supply.

At 15 per cent. run off quantity would be 4,362 M.C.F. (Intld.) J. C. L. So the run off the Gudiyátam river catchment of 313 square miles above the Panjani reservoir site would be 2,908 millions of cubic feet (at 4 inches run off) as an annual average.

(6) So much for the probable amount of water available for storage, and before proceeding further it should be noted that the Gudiyátam river is an important feeder of the Pálár and what the exact effect on the large irrigation system under the latter river would be, were the supply derived from the former interfered with, it is not easy to say more than that it might be very serious, dependent as the Pálár must be for its early freshets on the Gudiyátam river amongst other sources.

(7) In the year 1877-78 a detail survey of the channel proposed to supply the Palmanér tank and others situated above it and between the offtake from the river was made by Captain Elliston of the Bengal Public Works Department, who had about that time been employed in the district on famine duty.

(8) I have compared this survey (which shows levels) with the lay of the country generally and have no reason to doubt its general accuracy.

In fact without any survey or levels at all, it is quite apparent that to command the Palmanér tank and the high ridge which runs between it and the river, it would be necessary to go a long way up the river to find a suitable offtake, and this point is only reached some 6½ miles (by road) above Palmanér, while the channel therefrom would be about 15 miles in length.

(9) The cost of the project has been estimated at Rs. 1,62,000 (*vide* G.O., No. 1886 of 3rd September 1878), but this makes no provision for the masonry dam or weir which should be constructed across the river. The required length would be at least 900 \* feet (as it would not be advisable to pass a greater depth over than 4 feet)

\* G.O., No. 1241 of 30th May 1878.

and height 30 feet and the probable cost would be Rs. 70,000. The cost of the channel has been put down at Rs. 32,000, fully Rs. 10,000 under the mark.

(10) So making these allowances the total cost of the project would come to Rs. 2,42,000, say 2½ lakhs, while the returns to be derived due to increased cultivation of some 500 acres would amount to Rs. 2,500 or, say, 1 per cent. on the outlay. While considered in the light of a source of water-supply to the town of Palmanér, the scheme would most probably fail, just when most required, owing to the uncertainty of the supply in the river (now April quite dry).

This report has been detained until I could look up my papers connected with the Bangalore water-supply.

ORDER—dated 8th June 1893, No. 506 I., Public Works.

His Excellency the Governor in Council is of opinion that the facts brought forward by the Executive Engineer and Superintending Engineer are sufficient to show that the project of supplying the Palmanér tank and maintaining a drinking-water supply to the town of Palmanér is not one for consideration either from a financial or engineering point of view.

(True Extract.)

*W. H. P. S.*  
Under Secy. to Govt., P.W.D.,  
Irrigation Branch.

To the Chief Engineer for Irrigation.  
" Superintending Engineer, IV Circle.  
" Public Department. ✓  
" Revenue  
" presenters of the address.

Exd. C. A. Munisawmy.  
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IRRIGATION.  
ACCOUNT.

Govt. of {1893} Madras.  
PUBLIC WORKS.



Dated June, 8th.

Recd. *Regd. 10/10/93* Encr.

G.O., 8th June 1893, No. 506 I.

JUNE.

### Palmaner Tank

Observing that the project of supplying the — and maintaining a drinking-water supply to the town of Palmaner is not one for consideration of Government either from a financial or engineering point of view.

*cl.  
WMS*

*order. d/ 28 June 93 No. 493.  
Recorded.*

*21/5/93*

*788  
24/6*

*Copy office. Please ascertain if the draft  
of this order was submitted to H.E. the Governor.  
If not circulate the papers to H.E. now.*

*Circulated to H.E. the Governor as well as to H.M.  
in the P.W.D.*

*b-Sun  
26/3*

BACK PAPER, No.

OF 18

FURTHER PAPER, No.

OF 18

READ AGAIN ORDER OF GOVERNMENT, DATED  
18, No. , MISCELLANEOUS.

ENCLOSURES.

CURRENT No.

STATEMENT WITH DITTO.

ORDER OF GOVERNMENT.

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

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