

MEMO TO CABINET BY  
HON. MINISTER OF TRADE, INDUSTRY AND AGRICULTURE

Ta Qali Reservoir, which was constructed in 1959 to increase the storage capacity of four old underground tanks on the same site to eleven million gallons, partly collapsed when being filled in mid-1959.

2. The repair of the collapsed part of the reservoir has been engaging the attention of the department for a number of years. In fact a provision for the requisite repair works was included in the 5-Year Development Programme for 1964-69.

3. In the intervening period and since April 1964, the department took advantage of a detailed study of the natural groundwater resources and storage in the Mean Sea Level Aquifer which was being undertaken by the F.A.O. Hydrologist over a long period in cooperation with the department. It was therefore felt to be in the overall interest not to hasten a decision before all hydrological data and investigations were completed. Such data form the main basis on which to determine whether additional surface water storage in reservoirs was essential or not - a point of primary importance in considering whether Ta Qali reservoir should be reconstructed.

4. The F.A.O. Hydrologist (Dr Edelman) completed his hydrological investigations and concluded in his preliminary draft report that no additional surface water storage in reservoirs was really required. Dr Edelman confirmed this view to the Hon. M.A.P.C. before leaving Malta in January 1965 on completion of his assignment. The department has since been in constant touch with F.A.O. Headquarters in Rome (through correspondence and telegrams) to obtain an official copy of the F.A.O. export report; the news in June 1966 was that "the report is now with our printing unit and is expected to be ready for despatch by the 24th of June".

It has lately come to the knowledge of the department, however, that Dr Edelman's views on the additional surface storage requirements did not meet with complete agreement with F.A.O. Headquarters.

5. In anticipation of the submission of the F.A.O. report the department had worked on various alternative solutions to the problem of re-utilizing Ta' Qali Reservoir.

One of the first considerations was the possibility of making use of the reservoir, more or less in its present state, as an OPEN storage for un-off water with some minor alterations and repair works. A study was made on these lines and the result was that only a relatively small amount of run-off water could be collected and stored. Even this run-off was not actually being lost as it was percolating in the Mean Sea Level Aquifer along its course.

The second obvious line of thought was the reconstruction of the reservoir as a COVERED storage for mains water. Schemes were considered for the maximum utilization of the reservoir in this way at the minimum cost. Broadly, consideration was given to either total or part reconstruction of the reservoir. Following the studies made it is the department's view that it would be more economical to reconstruct the reservoir wholly on the ground that

- i) the cost of total reconstruction is estimated at £68,000 and will provide a storage capacity of about elev million gallons;
- ii) the cost of part reconstruction is estimated at £40,000 and will provide a storage capacity of only about 4.5 million gallons; besides, no use could be made of the non-reconstructed part of the reservoir;
- iii) the original cost of the construction of Ta' Qali Reservoir was approximately £130,000. With £68,000 the reservoir would be made completely re-serviceable, whilst at an expense of £40,000 less than a half of its original utilization would be achieved.

6. F.A.O. Report No. TA 2187 was received on August 8 and confirms Dr Edelman's preliminary draft report "not to continue such (reservoir) construction for seasonal or long-term storage". In general, the department agrees that more reservoir construction for seasonal or long-term storage is not a necessity. What requires qualification to this general principle is some of the lines of reasoning in the report (under 1.3.2.). In the first place, the department is in agreement with the view that the current over-extraction rate is contributing to high salinity which however can only be reduced either by artificial reduction in consumption (this measure can hardly be followed with the growing water demand) or by substituting over-extraction by desalinated water. Secondly, the full utilization of the existing reservoirs is restricted partly because of the silting of each reservoir and the limitation of water levels necessitated by distribution requirements and also by the operational requirement to allow a safe margin of reserve at the end of the summer period as an insurance for late rains and other unforeseeable circumstances. The conclusion against the construction of more reservoirs is based on the premise that the production of ground-water from the Mean Sea Level Aquifer should be drastically reduced - a factor which cannot be taken into practical account before other means of meeting the already growing water consumption can be found.

7. The obvious implication from the F.A.O. report is that the reconstruction of Ta Qali Reservoir is not to be proceeded with. Apart from what has been said in the preceding paragraph, the reconstruction of the collapsed part of the reservoir must necessarily be viewed also from its "sui generis" aspect - the historical and psychological background. There is also the advantage that with the money available for the purpose, the balance, in the department's view, appears to tilt in favour of the full reconstruction of Ta Qali Reservoir which should improve the water distribution flexibility in the Central and the Northern parts of the Island. Tender and Contract documents for the full reconstruction of Ta Qali Reservoir have been prepared for the call for tenders.

20th September, 1966.