

International Journal of Science, Engineering and Management (IJSEM) Vol 3, Issue 4, April 2018

Origin and Construction of Mambazhathurai Dam

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Abstract:- Mambazhathurai dam was constructed across the river Mambazhathuraiyar. The Mambazhathuraiyar reservoir scheme is located at about 3k.m from Villukuri village which is on the Nagercoil-Thiruvananthapuram main road. Mambazhathuraiyar dam is situated near Anaikidangu in Villukuri village which contemplate the formation of reservation with an effective capacity of 44.54M.ft. It is 35 meaters long and 80ft.high. From the dam 25 tanks receive water for irrigation. Mambazhathuraiyar river is situated in Kalkulam Taluk of Kanyakumari District.

RIVER BASIN

Mambazhathathurayar The river originates from Marcthathoor Malai. At an attitude of 838m and reaches the plains at an elevation of 76M and flows for about 4 Kms in the same name after which it is known as Thuvalar. Thuvalar flows for about 2.4Kms and then joins with Valliyar river near Thuckaly, which originates from Vellimalai hills and them flows towards south and falls into Arabian sea near Kadiyapattanam with total length of 19.29 Kms from its origin. The free catchment area up to the proposed reservoir site works out 2.80 sq mile. Necessary canal system is also proposed for giving assured supply to the avacut of 455.76 Ac under the river and 6 rain fed tanks and also to divert the excess yield in to Erattakarai branch of Padmanabhapuram Puthanar channel under Kodayar system. This diverted quantity can be conserved in Kodayar to utilize in some other areas to bring dry lands of 459Ac under plough. The hilly catchment area spread over to an extent of 2,80sq. miles at an attitude ranging from 76m to 833m mean sea level. The catchment areas are influenced by southwest and Northeast monsoon.

HEAD WORKS

Earth Dam: The dam is constructed as a earth dam for a length of 330m excluding the length uncontrolled spillway. The earth dam section is formed as zoned section. The earth required for the formation of bund were conveyed from the water spread area, patta lands with a lead of 0 to 1 Kms and surrounding tanks within the lead of 5Km.

Surplus Arrangements: An uncontrolled spillway with R.R.masonaryfor a length of 30m constructed at the left flank end to discharge maximum floodwater 5788 cusecs.

Surplus Course: The total length of the surplus course will be 110m and width will be 30m. The maximum flood discharge of surplus course in 5788 cusecs.

Irrigation Sluice: One sluice is constructed at L.S.270 m at the earth dam with sill level at 68.500 m and a minimum barrel section at 1.5x1.8m to a designed discharde at 100 cusecs for feeding an ayacut of 905.76 AC.

Mambazhathuraiyar dam consist of estimate cost of Rs.575 lakhs. The Ayacut to be acquired is 40.97 hactares. Out of which 4.04 hactares are reservoir forest lands. The additional food production due to implementation of the scheme will be 452 tonnes. The role tone acre and hectare works out to Rs.1,27,212, Rs.62,526 and Rs.1,49,350 respectively. The preliminary estimate was sent to government for approvel. The project work was done for a long period in the Mmbazhathurai dam. In the Kalkulam taluk more across of land remained as dry land without getting water for cultivation. This is turning roused the state's attention for work along that direction. Already there was proposal for the Mambazhathurai dam based on the request made by the people. So the scheme was included under the Third five year plan. This scheme across the Mmbazhathuraiyar offered irrigation in Kalkulam taluk. The idea of constructing on embankment across the dam Mmbazhathuraiyar was given up Stephen Corshly, Executive Engineer of South zone, Thiruvithancore in 1893.

In 1925 this project was considered for providing drinking water supply to Nagercoil town. But it was given up due to the water supply from Mukkoodal dam to Nagercoil. Later in 1953 again this project was taken into consideration for the same purpose. As per the G.O.No.MS.1494 public works Department Dt.5.4.1957, it was resolved to use this river for drinking water and irrigation purpose by constructing dam across it. But it was also given up.

In 1966 it was planned to construct a dam with a capacity of 30 million cubic feet by the Executive Engineer, Public Works Department C.M.I.P.Thirunelveli. Steps were taken after words. The number of Legislative Assembly and parliament stressed this project in the district promotion council held on 27-12-1983. As per this, the district collector of Kanyakumari wrote to the government in his number. The



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Government allotted Rs.575 lakhs of Rupees towards the construction of dam with a capacity of 50 million cubic feet. But in 1989 it was also given up as the dam was not economic.

On 13-7-90 the Superending Engineer studied this project on 10-5-1999 and made on alternation of lowering the excess water plate from for 75 meters and wrote to the department on 17-5-1999. Superending Engineer Tirunelveli had made a recommendation to the superending Engineer to converts the excess water canal into a regulated excess water canal on the river bank by his letter. On the basis of all these reports a plan of RS.25,80 was prepared with the approval of Chief Engineer, Maduai and submitted to first class Chief Engineer. The planned amount was again changed to 23.59 Chief Engineer, Madurai.

Technical Advisary Board visited the spot on 12-1-2004. Again the plan was changed partly as the Board recommended to construct unregulated excess water out let on the left bank of the embankment. The recommendation of Technical Advisory Board was confirmed by the executive engineer after visiting the Mumpazhathuraiar spot. On 19-3-2004 the Executive Engineer visited the spot and asked to get sanction for constructing dam and excess water canal from the perspective officials.

The project of dam and excess water canal was approved and sanctioned by Chief Engineer, Madurai after visiting the spot. He also gave permission to dig Bore well on experimental basis and to increase the height of the dam for 50%. As per the recommendation of the Chief Engineer Madurai the capacity of the dam was increased from 27.21 million cubic feet to 44.54 million cubic feets.

Technical sanction for Rs.1480 Lakhs accorded by the Chief Engineer, Madurai Region. Now to accommodate the increase in the tender excess, schedule of rate, increase in the construction of surplus course, 11th revised administrative sanction for Rs.2097 lakhs has been accorded. The project prolonged for a long period. People thought that this project is a dream just like Poigai dam. But the dam got a new life under the able Chief Minister of Shri.M.Karunanidhi and the work was started in may 2007 and was completed on November 29,2010. The project was opened for irrigation on November 30,2010 and was opened for irrigation on November 30,2010 and was inaugurated by the Deputy Chief Minister of Tamil Nadu M.K.Stalin on the same day. The day November 30,2010 was a very memorable day because the dreams of the agriculturists of Kanyakumari district come to be cherished.

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