COST BENEFIT ANALYSIS

The fresh water is essential for life processes as well as developmental activities. The fresh water is limited and need to be conserved for meeting out growing demand of people. The saline water available may be in plenty but its uses are limited and to change it to potable water, the desalination process is costly affair. The Government has mandate to provide safe and healthy water to the people for drinking and other potential uses, thus conservation of fresh water is requirement of the day. The State Government through PWD(WRD) intended to conserve Krishna water being received through Krishna Canal in the state, which is being stored in ;the reservoirs to its capacity and rest is drained and having no potential use of water. The proposal conceived and planned to store surplus water of Krishna Canal in the proposed reservoir in tune of 1TMC for the potable water supply to the Chennai by forming off take canal and a reservoir near Kannankottai and Thervoikandigai villages in Gummidipoondi Taluk of Tiruvallur District.

Water is nature's gift as well as considered as universal solvent and has no substitute, thus difficult to valuate in terms of money. The easy availability of fresh ;water is ;rain water, which need to be conserved for the defined uses. However, forming storage capacity of fresh water for the hard days when water is required for drinking purpose is prime need, involve capital expenditure. The recurring expenditure is almost negligible and sustainability is ensured to receive the required quantity of water through Krishna Canal make the project profitable. The water supply of 1TMC/ Year to the millions of people, which will incur the expenditure on treatment cost of Rs.140 Cr.(considering @ Rs. 0.05/lit) in case of desalination of sea water while in case of inland water treatment cost is Rs. 4.0 Cr. The total saving per annum on only treatment coast is Rs. 136 Cr. The total estimated cost of the project is Rs. 330 Cr, which shall be recovered in three years only. Besides this the capital cost on the establishment of Treatment unit of capacity 77MLD for the desalination plant is estimated as Rs. 462 Cr. While in case of inland water treatment plant is work out as Rs. 38 Cr. The total saving in capital cost of treatment plants is Rs 424 Cr, which is more that the total cost of the proposed project. The comparative account of both the system is as follows:

S.No	Parameters	Inland Water	Saline Water	Saving	Reference
1.	Capital Cost of the Treatment Plant (77 MLD capacity)	38 Cr	462 Cr	+424 Cr	Ref:- 1.Texas innovative water 2010,how much does desalination cost? http://water.tallyfox.com/filefield-private/files/8108/field...plus/4514 2. http://www.urbanindia.nic.in/programme/uwss/uiww/ppt_3rd_meeting/635mld_wtp_delhi_ppt.pdf
2	Treatment cost of the water-1TMC/Year	4 Cr	140 Cr	+136 Cr	

With the facts it is quite evident that formation of proposed reservoir for the storage and supply of water is not ;only cost effective but in long run efficient to strengthen the water augmentation scheme for the Chennai. The growing demand of water may be maintained to the tune of people's requirement years together. The fresh water available in the Krishna Canal may be utilized for productive purposes, which otherwise remain unutilized. Besides this the area where reservoir is proposed to be charges and villagers may take advantage of ground water recharging.

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Date :

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Signature