ALTERNATIVE WATER SUPPLY SOURCES AT MIDDLE EAST

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Turkey is a country located between Europe and Asia and has a surface area of 779 452 km^2 and a population of about 70 million. The Asian part; Anatolia is plateau rising progressively towards the east. Annual rainfall in Turkey varies between 220 mm to 2500 mm with an average of 642.5 mm and this corresponds to an average annual rainfall of 501 km^3. Approximately 186 km^3 of this water flows in rivers as surface water. The runoff coefficient is 37 %, the consumable water volume is 95.0 Km^3, and at present the actual consumed volume is 25.9 Km^3.

In Middle East, besides the available technologies for desalinization and reuse of waste water, alternative water supply sources are discussed. For example, in 1986, Turkey proposed a fresh water, technically feasible, pipeline project to divert about 6 MCM /day from Seyhan and Ceyhan rivers, to the Arab countries in the Middle East. Both of Seyhan and Ceyhan rivers are national rivers and the amount of the water to be transported was the surplus at the time of the proposal. At that time the project cost has been estimated as US $ 20 billion, on condition that local work force, contruction material available at each country would be used.

Starting from 1992, Turkish State Hydraulics Work; DSI was authorized to develop a water supply project from the Manavgat river which has an average 147 m^3/sec runoff rate. Originally concept initiating the Manavgat water supply project was to answer the increased demand for fresh water of the Mediterrenean coastal region during summer when the Tourist activities reach at its peak. In the mean time it would be a good change to meet the demands which may come from the nighboring countries. The project ready to operate with all the facilities has been decided to be privatized on 23.02.2004.

The Euphrates and Tigris rivers form 28.5 % of all the water resources of Turkey and, they are the most important water resources of the eastern and south eastern part of the Turkey. They originate in eastern part of Anatolia . In the upper zones of the river basins of eastern Anatolia, spring floods constitute approximately 50-70 % of annual flow, winter precipitation occurs mostly in solid form. They cross the border to Syria and Iraq. It is necessary to find an equitable and satisfactory means for allocating water of Euphrates and Tigris river system to the riparian sates ; Turkey, Syria and Iraq, so that it will stand to the test of time and the current relations will improve

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