

Water: Giving a Fresh Solution to Lebanon's Water Pollution

Majdi Aref - Policy Analyst - Lebanese Institute for Market Studies

The Water Crisis in Lebanon

People in Lebanon use polluted water for their daily consumption such as bathing, cooking, and cleaning. The number of microorganisms that seep into groundwater from waste has reached 1 billion per milliliter, also traces of mercury, salmonella, and E. coli have been found. This is due to the absence of a sewage system and the leakage of wastewater to rivers, lakes, and groundwater. Lebanon needs about 2 billion cubic meters of water per year, the government provides only about 35% that reaches houses through the depleted state network, constructed during the Ottoman Empire and the French Mandate. Therefore, people are forced to use water tank trucks and pay two bills for contaminated water.

Expensive Solutions

In 2011, the Ministry of Energy and Water set the national strategy for the water sector and promised to solve the problem by 2020, at a high cost of about \$10 billion: \$7.74 billion for investment and \$2.1 billion for maintenance. The deadline is nearing completion and the water problem continues to grow. The treasury is unable to finance the entire project and many disputes related to the dams, lakes, and riverbeds of the project emerged. Today, the ministry is counting on the International Conference in Support of Lebanon Development and Reforms (CEDRE) to obtain \$4.85 billion in loans for water spending. However, the current budget deficit threatens economic collapse, at a time when public debt is rising to about \$80 billion.

Independent Water Producers (IWP)

In view of the serious environmental and financial situation, this paper proposes the adoption of a new policy allowing private companies to invest in Lebanon's huge wealth which is 4.5 billion cubic meters of water annually. Production companies would treat surface water such as lakes, rivers, and springs, which amounts to 84% of total supply and groundwater (16%) at its own expense. IWPs have the incentive to clean water increase the supply, in order to increase their sales. The government must therefore open the market to all potential producers, in all regions, and let them compete on selling their water in order to keep a low price and a decent quality.

Competition between Distribution Companies

Distribution companies purchase water on the wholesale market and sell them at retail as per consumption of households. Since they also manage the billing service, distribution companies will make sure that their customers pay or else they will bear the loss of those who do not pay. This process improves the rate of collection, which does not exceed 50% currently. For example, between 2003 and 2007, the water sector in Tripoli was handed over to a French company that managed to reduce waste by 20% in two years, to raise collection from 30% to 80%, and to increase revenues from \$2 million to \$4.4 million annually. Again, allowing the largest number of distribution companies to exist is of the utmost importance. If a company raises its price or deteriorates the quality of its service, the consumer can switch over to another company. This direct accountability places the consumer at the helm and companies compete for their business, by offering them inexpensive, reliable, and clean water.

Transport Network Management

Instead of relying on water tank trucks, private companies manage the transport network and rent it out to distributors and producers. Given that only 35% of today's demand is covered by the network, the transport companies will modernize, maintain, and expand the network to all households in order to increase their client base and their income. Furthermore, any leakage and waste in the network will be easily measured through the mismatch between the quantity supplied, by the production companies and the quantity received by households. The cost of this mismatch will be borne by the transport companies which will motivate them to run a very efficient network.

This new formula separates production, transport, and distribution, and cleans Lebanon's water, reduces prices, increases feeding hours, repairs the network, and saves Lebanon's treasury from additional debt. It also attracts private investments to the water sector, stops the financial bleeding of the government, and transforms water into a successful and efficient sector.