



**Fransabank publishes a recent study on the water sector in Lebanon:
Water deficit up to 610 million cubic meter by 2035
PPP for achieving water security**

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The Center for Economic Studies at Fransabank has recently conducted a study on the water sector in Lebanon. The study is entitled “The Policies and Actions Needed to Face the Growing Water Security Challenges in Lebanon”. This study sheds light on Lebanon’s water wealth, the major problems facing the sector, and projects future developments for the supply and demand for water. It also suggests policies and actions needed to ensure a sound and effective management of the water resources and its development in order to ensure a proper water security in Lebanon.

The study indicates that total renewable water resources in Lebanon in an average year stand at nearly 4.1 billion cubic meters, of which 1 billion cross the Lebanese borders and 0.4 billion go to the sea. This leaves available water resources at almost 2.7 billion distributed between underground water (0.5 billion) and surface water (2.2 billion).

The study points that total water resources from surface and extracted from private wells and dams are estimated at nearly 1.6 billion cubic meter. Water from dams approach 235 million cubic meters only, which represents almost 6% of total renewable water resources, compared to 295% for Egypt and 117% for Syria.

The study shows that Lebanon is expected to experience a growing water shortage in the coming years, in line with growing demand and a stagnant supply. The demand for water is estimated to jump from 1.5 billion cubic meters in 2015 to 1.8 billion in 2035, thereby pushing up the water deficit from 291 to 610 million cubic meters during this period.

The study indicates that the average connection rate of the Lebanese population to the public water network does not exceed 80%; the share of sewer wastewater connection stands at nearly 60%; the treated wastewater share of total water consumed stands at almost 8% only against 32% for the MENA region; that 60-70% of all natural sources of water are affected by bacterial contamination; and households that are connected to public water network only 53% of them drink its water.

The study explains that Lebanon’s per capita renewable water resources are below the household of water poverty set at 1000 cubic meter per capita and year. The level in Lebanon is almost 839 cubic meter.

The study presents the major achievements recorded in the water sector over the past years, pointing to the reconstruction of water infrastructure following the civil war (1975-1990) and Israeli war on Lebanon in 2006. Also, the formulation of a ten-year plan by the Ministry of Energy and Water in 2010 for the period 2011-2020 entitled “The National Water Sector Strategy”. This in addition to the “Law Water” of 2000 which merged the 21

water authorities and created four Regional Water Establishments in Beirut-Mount Lebanon, North, Bekaa and South.

The study highlighted the major problems and challenges facing the water sector in Lebanon, mainly the following:

- Lack of up-to-date information on the water sector in all its indicators.
- Lack of global national planning and appropriate policies for water utilization, use, conservation and development of its resources.
- Outdated water legislations and non-existent enforcement mechanisms.
- Fragmented water institutions and ineffective coordination between them.
- Lack of adequate financial resources to efficiently develop non-conventional water resources and wastewater reuse facilities, as well as distribution networks and systems.
- The absence of technical cooperation between Arab countries in the exploitation and development of new water resources.
- Current pricing policies in the water sector are inefficient leading to the wastage of water instead of its conservation.
- The incomplete and slow implementation of the water reform process, politicization and fragmentation of decision making and absence of an autonomous regulatory agency.
- Weak public investment in the water and wastewater sectors, whereby it does not exceed 0.4% of GDP.
- The current gaps in the legal-regulatory framework, which are delaying the water-sector reform and private-sector participation in supporting and financing the water sector.
- No proper coordination exist between the international donors in the water sector.

The study lastly suggests several policies and actions needed to be undertaken by the Government of Lebanon to support water security in the coming years. They include:

- Updating the current legislations and laws governing the water sector, with special emphasis on efficient implementation and private-sector participation.
- Modernizing the current plans of the Ministry of Energy and Water in the water and wastewater sectors.
- Transforming the current government water institutions into private businesses that could be well managed.
- Formulating integrated and comprehensive strategies and policies for the efficient management of water resources on the sides of supply and demand.
- Adopting the PPP model in the water sector, because the efforts of each the public sector and private sector are not enough to reform this sector.
- Future plans should be focused on building small and large dams as they are the ultimate solution to capturing water from winter rains and snows.