

Role of the **Directorate General of Investment** at the Lebanese *Ministry of Energy and Water (MEW)* in the ***Monitoring of Drinking Water Quality***

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Introduction

- The Status of Water in Lebanon
- The Need of Lebanon for the Coordinating Unit (CU) at the MEW

The Mission of the CU

- The CU is currently part of the new MEW framework.
- Our role vis-à-vis the 4 Water Establishments (WEs) in Lebanon:
 - North Lebanon WE
 - Bekaa WE
 - Beirut and Mount Lebanon WE
 - South Lebanon WE

Lebanese Water Establishments



The CU Composition

- 1 “Central Coordinator”
- 4 “Helping Coordinators”: 1 for each WE

The CU Job

- Samples covering :
 - Sources → Water Treatment points →
Networks → consumers end-points (gauge)
- Monitoring of WE laboratories:
 - Each WE has one central lab and many secondary labs
 - Revising the WE lab results: reading, comparing, commenting, recommending...

The Beirut and Mount Lebanon WE example

- Some of the parameters tested by its main laboratory:
 - Beside daily Microbiological testing, the following parameters are tested on a weekly basis: True color, Turbidity, Conductivity, Acidity in CaCO₃, Total Alkalinity, pH, Calcium Hardness, Magnesium Hardness, Total Hardness, Chlorides, Sulfates, Phosphates, Dissolved Iron, Ammonium, Nitrites, Nitrates, Dissolved Oxygen, Free Residual Chlorine, TDS, Virtual Mineralization (Dr Residual), Salinity, ...

The CU Laboratory

- Small lab at the MEW used mainly for microbiological examination of drinking water.
- Detecting E. Coli presence in water as a checkup for the WEs' work in water treatment at all points (water treatment points, networks, and consumers' end-points)
- Field testing of Total and Free Residual Chlorine, Turbidity, pH, etc...

Administrative Hierarchy

- The CU is under the administration of the “Water Tutelage Department” which is under the administration of the Directorate General of Investment.
- MEW → Directorate General of Investment → Directorate of Tutelage → Water Tutelage Department → CU

Problems facing the CU

- Shifting the Water sector from a distributed responsibility into a united responsibility through the WEs.
- The main inspection is given to the WEs.
- Very old Networks
- Common public belief that surface water is safe
- Wrong concepts concerning water nature

Recommendations

- for the Improvement of Drinking Water Status in Lebanon :
 - More awareness concerning the public
 - Cooperation between the concerned administrative bodies: MEW, Ministry of Agriculture, Ministry of Public Health, Ministry of Environment, Ministry of Interior (authority over Municipalities), Ministry of Public Works, Council of Development and Reconstruction (CDR) ...

Recommendations (cont'd)

- Improvement of Institutional Framework at the technical level
- Strengthening the Human Resources

Thank You