



Mardi LEWAP

Which Standards for water reuse in Lebanon?

Informing the debate based on international experience and local field experiment

March 15th, 10:00 AM – 12:00 PM

Mardi LEWAP are seminars that aim at building bridges between academics and operational actors. They are opened to all members of the LEWAP network.

This Mardi LEWAP, organized in collaboration with the International Water Management Institute (IWMI) and the Lebanese Agriculture Research Institute (LARI), will showcase latest research results on the potential of water reuse for agriculture in Lebanon through standards analysis and field experiment.

To register and receive the Zoom link, please fill in the form: <https://forms.gle/sSs1n8xjMA7Ew2cFA>.

For more information, contact us at contact@lewap.org.

Dr. Marie-Hélène Nassif, IWMI: Assessing the FAO proposed water reuse guidelines for Lebanon: between international experience and local context – 20 minutes

Dr. Marie-Thérèse Abi-Saab, LARI: Presentation of Local evidence on the impact of irrigating vegetables crops from Ablah WWTP (Bekaa region) – 30 minutes

Amongst the numerous solutions needed to improve water management in Lebanon, water reuse in agriculture offers an interesting potential for reducing the water supply gap. However, much work is still to be done to expand regulated water reuse while informal reuse is widespread. Currently, there is only one established reuse system (in Ablah Bekaa) and some Wastewater Treatment Plants (WWTPs) designed with reuse outlets but without clear irrigation plans. Furthermore, there are no officially adopted qualitative standards and no administrative framework that organizes the design, operation and monitoring of reuse projects. In 2010, an FAO project developed reuse guidelines for agriculture in collaboration with different public administrations but those were not officially adopted by the government. Moreover, based on expert's opinions, these standards are to be revised and adapted to the Lebanese context.

Starting 2019, the International Water Management Institute (IWMI) and the Lebanese Agricultural Research Institute (LARI) have been collaborating through the ReWater MENA Project to support Lebanese stakeholders in developing better strategies and regulations to expand safe water reuse in the country. The objective of this session is to present the main research results pertaining to the development of qualitative standards for water reuse in irrigation.



It will be organized in two folds: The first presentation given by IWM will start with an introduction of the regulatory approaches mainstreamed by international organizations with a focus on the recent 'Multi-barrier approach' issued by the World Health Organization (WHO) in 2006. It will then assess the proposed FAO guidelines against international guidelines and MENA countries' standards and critically examine the possibility of implementing them with regards to the status of the wastewater sector and existing irrigation practices. The second presentation given by LARI will present the results of a two-year field research conducted in Central Bekaa to assess the impact of irrigating vegetables from Ablah WWTP's treated effluents, the Litani water and groundwater from the region. The presentation will explain the research protocol and feature the main health, physicochemical and agronomic impacts identified. The two presentations will conclude that the proposed Lebanese guidelines deserve to be revised using less restrictive thresholds and crop restrictions especially with regards to pathogenic parameters. The presented research will open the floor to questions, opinions and debates around these evidence-based policy recommendations.