



Consortium Partners



## Decentralized Wastewater Systems (DEWATS)

02 July 2024

### Intro

The HawkaMaa-EU project aims to provide WASH assistance to support water governance and public water and wastewater services in Lebanon for host and refugee communities. A consortium formed of different organizations is at work; the implementing partners of the project are ACTED, ACF, WW-GVC, LebRelief and Solidarités International with the support of IMPACT, LCPS, Nahnoo and LEWAP. Under this project, LEWAP's role is to conduct workshops around topics of high relevance for the water Sector.

On 02 July 2024, a workshop on the Decentralized Wastewater Systems was conducted in collaboration with ACF supported by Solidarité International that consists on reflecting critically on decentralized wastewater treatment systems and their actual and potential impact within the various Lebanese contexts.

The workshop was attended by a wide variety of stakeholders ranging from representatives from different ministries to international and local organizations, donors, civil society organizations, and academic institutions; it revolved around presenting the DEWATS systems, the challenges faced and lessons learnt

On the agenda:

- Introduction by LEWAP – 2 minutes
- Presentation by ACF – 1h:30min
  - Background and History of DEWATS
  - Purpose and Objectives
  - Phases of implementation: challenges and lessons learnt
- Coffee Break: 15 minutes
- Presentation by Solidarité international: DEWATS in Menjez – 1h:00
- Wrap up and conclusions



## **Presentation by ACF:**

### **What is DEWATS and its history in Lebanon?**

DEWATS stands for Decentralized Wastewater Treatment Systems, implemented in the country around Informal Tented Settlements (ITSs). The management of wastewater systems within informal tented settlements (ITS) has been a subject of concern for both Lebanese authorities and the international community. While it is important to note that primary sources of pollution to groundwater and river basins stem from various origins such as illegal industrial discharges, agricultural pollution, and untreated wastewater from various other sources, the issue of wastewater from ITS remains a priority for Lebanese authorities [1]. According to UNICEF September 2019 SitRep, the Litany River Authority released a Policy White Paper that assessed pollution causes in the Litany River, identifying mismanaged sanitation in informal settlements as a significant contributing factor.

As a response, an eviction campaign was initiated, targeting informal settlements situated within 200 meters of the river. In line with these developments, the WASH Sector in Lebanon proposed a Sanitation Action Plan that emphasized the implementation of more environmentally friendly sanitation approaches, particularly focusing on Decentralized Wastewater Treatment systems. These systems were intended to be deployed in sites with the highest environmental risk, as determined by criteria including the environmental compliance of latrines, proximity to water bodies, and groundwater vulnerability zones

After almost 5 years of technical groups and task forces coordinated by the WASH Sector and aiming to draft the Sanitation Action Plan (Annex I), identify the adequate Decentralized Wastewater Treatment Systems (ANNEX II - Introduction to DEWATS) and the related selection criteria, in May 2024 during the DEWATS implementation phase the Ministry of Energy and Water (MoEW) issued a ban to withdraw its validation to any new DEWATS installation. The official reason behind this where concerns about:

- The effective Sustainability of the O&M at ITSs level
- The quality of effluents (COD/BOD) considered out of the parameter established by the Lebanese Law
- Possible diversion of Aid in the ITSs

### **Purpose and Objectives:**

The proposed Lessons Learnt exercise is planned to be in the frame of HawkaMaa-EU Consortium, aiming to start from the above concerns and expand the considerations also on other possible applications of Decentralized and in situ treatment systems, both at ITSs and Host community level in rural areas and where applicable.

### **Objectives:**

- Identifying good practices, limitations and challenges encountered during DEWATS implementation, at identification, selection, construction, and O&M levels, both in and out of ITSs.
- Developing recommendations and improvement of DEWATS
- Enhancing knowledge sharing and organizational learning about Decentralized Treatment systems.
- Documenting lessons learned for future contextualized installation.



### **Phases of Implementation of DEWATS:**

- Identification and prioritization of sites: a preliminary assessment is conducted followed by a stakeholders analysis
- Design of the system: Detailed technical assessment and community engagement
- Procurement of the parts for the system
- Implementation of the DEWATS
- Monitoring and Operation and Maintenance for sustainability

The detailed phases of implementation are presented in the [powerpoint presentation](#) pages 7- 25

### **Presentation by Solidarité international: DEWATS in Menjez**

Solidarité International have implemented a DEWATS in the municipality of Menjez in an area populated by 50 individuals due to the demand of the locals and the municipality as the wastewater is not treated before being directed to the Valley.

A site was allocated and the system was implemented, the influent and effluent were tested to determine efficiency of the system and conclusions were made based on the challenges faced.

To know more about this case study check the [powerpoint presentation](#) pages 26-34

### **Supporting document**

The presentation done during the workshop on July 2<sup>nd</sup> 2024 can be found on the link [here](#)