



# Promoting Sustainable Management of Water Services and Resources in Countries Affected by the Syrian Crises

*MADAD Coordination Table 10<sup>th</sup> July 2018*

# WHEN and WHO ?

## 💧 Timeframe:

- Nov 2016 – Nov 2019
- First concept note July 2015

## 💧 Partners

- GVC
- CISP
- ACWUA

## 💧 Institutional Partners

- BWE
- SLWE
- NLWE

# WHERE? PILOT AREAS

## In North Lebanon (4) :

Akkar (Qatlabeh, Akroum) and Tripoli (El Fouar Zgharta and Majdlaya Zgharta)

## In South Lebanon (1) :

Bent Jbail

## In the Bekaa (9 + 2):

El Qaa, Zabboud, Bejjaje, Nabi Osmane, El Ain, Toufiqiye, Laboue, Moqraq, Khodor, Nasriyet Rizk and Qabb Elias (*last two as integration with EU-UNHCR program*)

Total number of Beneficiaries : approx.  
108.000 (*not including Qabb Elias and Nasriyet*)



# HOW ? MIYAH-CON approach

- 💧 **Infrastructural Level:** Rehabilitate and upgrade existing infrastructure, wells, reservoirs and networks to be able to supply reliable water services;
- 💧 **Citizen Level:** Promote citizens' participation in the process of water management by providing access to information, fostering accountability of public service, installing water meters and encouraging regular subscriptions and payments;
- 💧 **Institutional level:** Increase the capacity of the Water Establishments to operate, maintain and manage water services through the provision of technical assistance and through improved customer services.  
Promotion of coordination at National level for mainstreaming Non Revenue Water (NRW) reduction approach and Water Demand Management (WDM) application.

# INFRASTRUCTURAL WORKS

- 💧 New Boreholes and pumping stations - 6
- 💧 Networks – 59 km
- 💧 Water storages – 1
- 💧 Rehabilitation springs - 2
- 💧 Installation of bulk meters and domestic meters (approx. 8.000)
- 💧 Rehabilitation networks and pumping stations
- 💧 Leakage reduction and pressure management interventions

# SOCIAL COMPONENT

- 💧 Citizens satisfaction surveys (pre-post)
- 💧 Customer DB (clean and geo-reference)
- 💧 Public meeting WEs – Municipality - citizens
- 💧 Communication campaigns
  - Brochures; newsletters ...
  - Social media and Local broadcasting...
  - Door to door campaigns, SMS,...
- 💧 School campaigns for water conservation
- 💧 Subscription campaigns








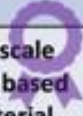
# CAPACITY BUILDING COMPONENT

## BWE-SLWE-NLWE

- 💧 Water establishments NRW (Non Revenue Water) assessment
- 💧 Application of NRW reduction toolbox
- 💧 Definition of Performance Improvement Plans (PIP)
- 💧 Coaching and supervision of Implementation of PIP
  - Creation and coaching of NRW units
  - Creation and coaching of GIS units
  - Support commercial component in particular for Water meters procedures follow-up, KPI dashboard indicators, integration with GIS



# Example of NRW TOOLBOX INDICATORS

Physical Loss	Intervention	Level Descriptions			
		1	2	3	4
	Active Leakage Control	No organized active leak control. 	A specialized leak detection team is available for assisting and supporting maintenance activities. 	Leak detection is a continuous activity and a specialized team can use different techniques and devices for locating leaks.	+ Leak detection is prioritized according to monitored flow, noise, and other parameters.
	Speed & Quality of Repair	No system or procedure available for receiving and repairing leaks.	There are teams ready for receiving reports of leakage and teams ready for repair and maintenance. 	All reported leaks are repaired and repairs are checked for time and quality. Records of leak location and other information. 	All leaks are repaired within 1 days and repairs are checked for quality. Repair record exact locations & documenting repair details.
	Pressure Management	No pressure measurement and control. 	Measurement of pressure in high and low points guide utility actions for correcting pressure deviations.	The network is hydraulically designed/redesigned to ensure an upper and lower pressure limits. 	+ Automated control of pressure based on critical pressure in zones and achieving lowest possible pressures.
	Pipeline & Asset Management	No planned renewals taking place.	Reactive replacement of sections of network elements with recurrent 	Implement large scale renewal projects based on age, type, material, etc. 	Renewal is optimized by criticality, history, and inspection results.



# NATIONAL COORDINATION

- 💧 Create common initiatives and constructive dialogue between WEs;
- 💧 Organise national workshops for sharing experiences;
- 💧 Promote NRW Reduction approach in the Lebanese Water Sector;
- 💧 Promotion of national good practices for application of NRW principles in designing and implementation of projects;
- 💧 Online Platform for publication of data for the pilot areas and sharing of best practices

*Normal Infrastructural Project duration*

Follow-up (6-12 months)

Other actors  
involvement

**Infrastructural  
works**

**Conne  
ctions**

Technical studies

Identifi  
cation

Citizen  
satisfaction  
**survey** and  
water meter  
assessment

**Public  
meeti  
ngs**

Local Awareness  
**campaigns** about  
cost-recovery and  
water meters

Promotion of subscriptions

Capitalisat  
ion and  
diffusion

Customer DB update

Water  
meters  
installati  
on

Frequent meters  
Reading, water  
balance and **NRW**  
publication

**Media  
camp  
aign  
for  
replic  
ation**

**Billing and collection**

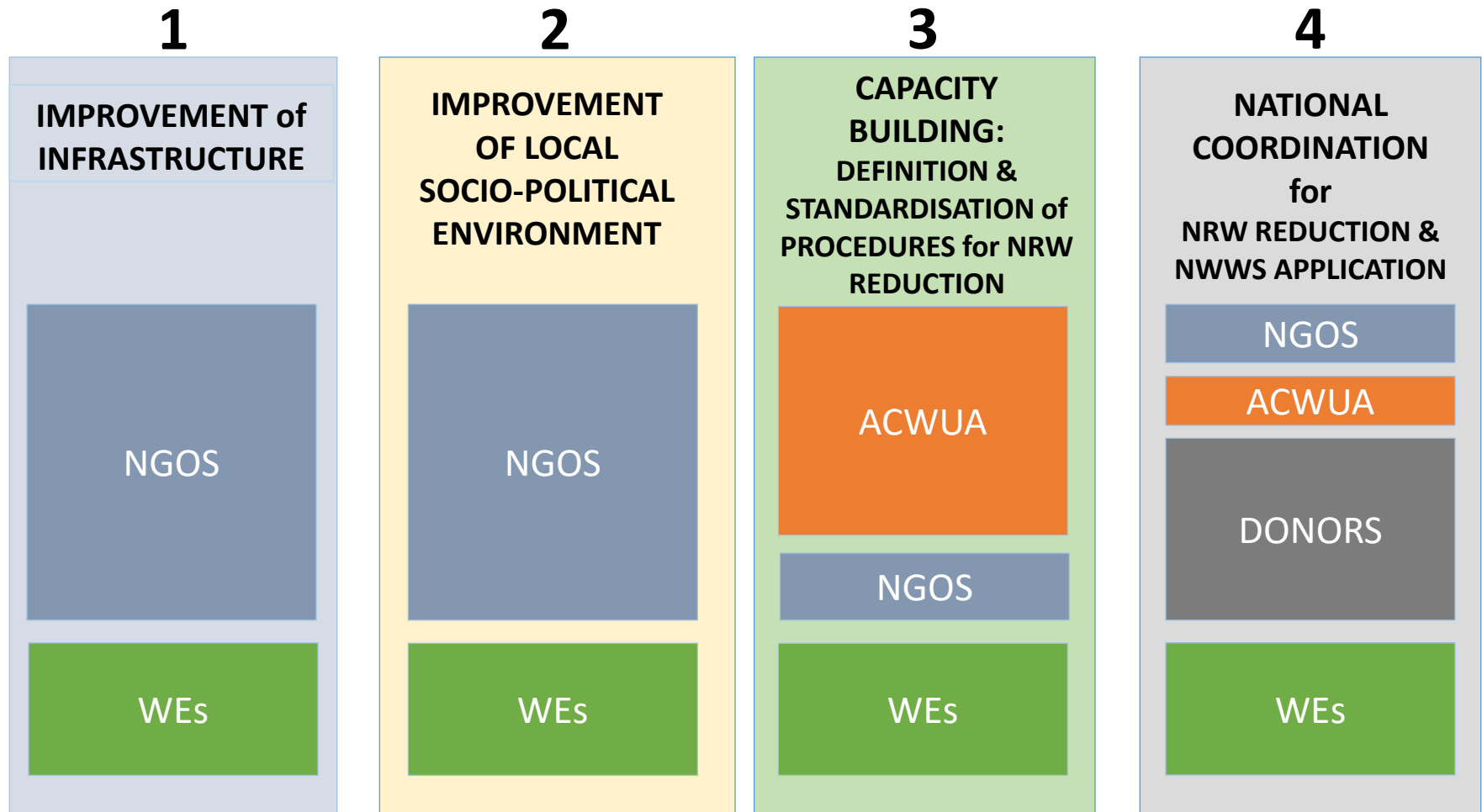
**O & M**

**PARTNERS**

Establishment NGOs

time  
time

# PILLARS OF STRATEGY and ROLES



# Thank you for your attention