



Sustainable Water  
Integrated Management (SWIM) -  
Support Mechanism



Project funded by  
the European Union

*Water is too precious to waste*

## THE SWIM DEMONSTRATION PROJECTS

SWIM MEDIA INFORMATION WORKSHOP - 14 May, Beirut - LEBANON

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# The five SWIM - Demonstration Projects

- Total EC funding: 15 million Euro
- Main Objectives:
  - To demonstrate best practices of sustainable and integrated water management in the Mediterranean Region;
  - To disseminate widely good practices and state-of-the-art technologies at national and regional levels;
  - To enhance the replicability of best practices in other areas of the Mediterranean;

# The five SWIM - Demonstration Projects

The selected projects focus on 3 main priorities:

Priority 1: Enhancing effective water governance for integrated water resources management in a transboundary context;

Priority 2: Adapting to climate change and enhancing drought and flood management

Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

# Priority 1: Enhancing effective water governance for integrated water resources management

## SWIM - Jordan River: Trans-boundary Master Planning of the Lower Jordan River Basin

- Countries: Jordan, Israel, occupied Palestinian territory
- Leader: Water and Environment Development Organization (WEDO)/ Friends of the Earth Middle East (FoEME)

### Objectives:

- To publish the "Master Plan: A Vision for the Lower Jordan River", the first ever trans-boundary integrated master plan;
- To advance political will for adopting a regional approach to IWRM of the Lower Jordan River among key Jordanian, Israeli and Palestinian figures;

# Priority 1: Enhancing effective water governance for integrated water resources management

Type of Interventions: technical/analytical work, information and awareness raising, public education and participation, political advocacy efforts (towards governments, Parliamentarians, etc.);

Replication Potential: The methodology of cooperation, joint planning, and pragmatic attention to issues of common interests that this project highlights could be beneficial for other countries in the Mediterranean as well as other regions that are facing challenges related to the sharing of crucial resources with their neighbors.

## Priority 2: Adapting to climate change and enhancing drought and flood management

### 1- SWIM - ACLIMAS: Adaptation to Climate Change of the Mediterranean Agricultural Systems

### 2-Water harvesting and Agricultural techniques in Dry lands: an Integrated and Sustainable model in MAghreb Regions - WADIS-MAR

- Countries: Algeria and Tunisia
- Leader: Desertification Research Group (Centro Interdipartimentale di Ateneo), University of Sassari (NRD-UNISS), Italy

## Priority 2: Adapting to climate change and enhancing drought and flood management

**Objectives:** To realize an integrated water harvesting and aquifer recharge system to increase water availability and implement best agricultural practices to increase water efficiency and reduce pollution, manage flood flow and runoff (against soil erosion) in two watersheds characterized by water scarcity and groundwater overexploitation;

**Type of Interventions:** application of “soft” modern rehabilitation interventions/techniques (gabions, recharge wells) to improve traditional water harvesting systems, artificial aquifer recharge, capacity building and awareness raising activities for local/national stakeholders; across-countries exchange / diffusion of lessons learnt (→ **replication potential!**)

## Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

### 1-Innovative Means to Protect Water Resources in the Mediterranean Coastal Areas through Re-injection of Treated Water - IMPROWARE

- Countries: Egypt and Tunisia
- Leader: Italian Ministry of the Environment, Land and Sea (IMELS) - Italy

#### Objectives:

- To enhance the recharge of coastal aquifers by injecting treated wastewater of appropriate quality levels achieved via treatment plants, including constructed wetlands;

## Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

### Objectives:

- To contrast the overexploitation of potable groundwater and increase water availability for local communities, addressing the saltwater intrusion;
- To disseminate the practices and lessons learnt during the project in the 2 countries and in the Mediterranean;

## Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

### Type of interventions:

1- Upgrade of one wastewater treatment plant in Egypt to use the treated wastewater for a safe recharge of the aquifer (secondary treatment with activated sludge + sub-surface constructed wetland for secondary/tertiary treatment);

2- (a) Upgrade of one wastewater treatment plant (WWTP) in Tunisia to improve the quality for groundwater recharge at the outlet of the WWTP;

(b) Increase the pumped volume of water;

(c) Build three additional infiltration basins (for the collection of storm water) to increase the quantity of water that infiltrates the aquifer;

## Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

### 2- Network of demonstration activities for sustainable integrated wastewater treatment and reuse in the Mediterranean - Sustain Water MED

- Countries: Egypt, Jordan, Morocco and Tunisia
- Leader: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

## Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

### Objectives

To demonstrate:

- the economic benefit of secondary treated wastewater for irrigation in Egypt;
- the potential of decentralized/semi centralized low cost wastewater treatment and reuse in Jordan;
- a sustainable concept of locally adapted wastewater and human excreta management in Morocco;
- the applicability of wastewater quality monitoring and early warning system to promote security and acceptance of wastewater reuse in Tunisia.

## Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

### Type of activities:

- Jordan:
  - Central conventional treatment and decentralised alternative and low-cost wastewater technologies like constructed wetlands, grey water recycling and modified septic tanks for reuse in agriculture and for rural communities in Jordan;
- Egypt:
  - Decentralised secondary treatment of primary effluents (Abu Rawash WWT) combined with the application of innovative irrigation and crops technology

## Priority 3: Promoting water demand management and efficiency, including non-conventional water resources

### Type of activities:

- Tunisia:
  - the applicability of treated wastewater quality monitoring and early warning systems to promote security and acceptance of wastewater reuse in Tunisia, including examples of good water governance between water producers and farmers.
- Morocco
  - a sustainable concept of locally adapted wastewater and human excreta management based on the eco sanitation principle, by using different appropriate technologies like the Dry Toilets techniques and resulting in recycling of phosphorus as a nutrient to improve soil conditions and treating biologically excreta and wastewater, with the aim of energy and artificial soil production, minimisation of resources' consumption and maximisation of their reuse;

# SWIM-Demonstration Projects: Replication potential

- Wide dissemination of best practices on sustainable integrated wastewater management and reuse in the beneficiary countries including:
  - State-of-the-art technological applications;
  - examples of good water governance and stakeholders' dialogue;
  - improvement of partner institutions' capacity;
  - Communication, awareness raising and dissemination activities directed to a broad spectrum of stakeholders: decision-makers, National/local authorities, farmers, young people, NGOs, etc.

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Thank you  
for your attention

Merci pour  
votre attention



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