



**Sustainable Water  
Integrated Management (SWIM) -  
Support Mechanism**



Project funded by  
the European Union

*Water is too precious to waste*

**Cost Assessment of Water Resources Degradation (CAWRD)  
Introduction to the Workshop**

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# Introduction

- **SWIM-SM has designed and implemented a pillar on the cost assessment of water resources degradation (CAWRD) at the basin level because it is at this level that water governance can be strengthened and water can be mainstreamed in other sectors.**
- **This pillar consists of four sub-components;**
  - **Cost of water resources degradation due to water and waste water pollution with the aim to place a monetary value on the consequences of the degradation;**
  - **Cost Benefit or Cost Effectiveness Analyses of Remedial Actions and Preparation of Investment Plans for one major basin in 4 Partners Countries, including estimates in monetary terms for the overall health, social, economic and environmental benefits linked to these alternatives in the selected watershed;**
  - **Building the capacity of the decision makers at the sub-national/basin level and the Universities to transfer knowledge, especially with regards to the methodologies used for the preparation of investment plans; and**
  - **Validation and dissemination of the Investment Plans at the Watershed/Basin Level to build consensus on the investment plans, seek the Government support to implement and replicate the investment plans.**

# Introduction

- **During the first two years 2012 and 2013, SWIM-SM has focused primarily on the first two components of this pillar, namely the cost assessment of water resources degradation and the cost of remediation of the following four basins:**
  - **The Oum Er Rbia Basin in Morocco**
  - **The Seybouse Basin in Algeria**
  - **The Medjerda Basin in Tunisia**
  - **The Litani Basin in Lebanon**
- **A consultation meeting was held in each of the four countries and a general presentation was made at the SWIM-SM Steering Committee meeting**
- **In 2014, SWIM will focus on the third and fourth component of this pillar namely, capacity building and validation and dissemination of the investment plans at the regional level.**

# Objective

- **The objective of this workshop is to introduce the principles and methodologies of the Cost Assessment of Water Resources Degradation (CAWRD) in order to improve the knowledge of the participants in environment economics**

# More Specifically

- **To discuss the mechanisms leading to costs;**
- **To explore the variability in the costs of degradation – why does it arise?**
- **To discuss methods: what can and what cannot be estimated and what data is needed?**
- **To discuss what can be done and how economic estimates can be used to guide decisions**

# Content of the Workshop

- **The workshop consists of :**
    - **A rapid assessment of the participants knowledge on environment economics at the beginning of workshop**
    - **Presentations on**
      - **Overview of the CAWRD and the results of the CAWRD of the four basins**
      - **Methodologies of CAWRD**
      - **A case study**
    - **A one day of working sessions on CAWRD**
- An assessment ex post of the knowledge acquired as a result of the workshop**
- Participants' recommendations on how to improve the quality and content of future workshops.**

# The Audience

- **Participants are from Morocco, Algeria and Tunisia**
- **The participants are from**
  - **Government entities working on water resources**
  - **Environment and Water Specialists**
  - **Researchers**
  - **Local NGOs representatives and journalist**

# The Presenters

- **They are Consultants to a Greek Consulting firm , LDK Consultants, Engineers and Planners; who is managing SWIM\_SM.**
- **They are**
  - **Dr Sherif Arif, Senior Consultant in Environment and Water**
  - **Mr Fadi Doumani, Senior Environmental Economist**



# Participants' Expectations

- **Three questions were required for you to answer as part of the workshop registration:**
  - **Explain why the current training is relevant to your daily job**
  - **Explain your main expectations from this training and what tools it might give you to use in your future work**
  - **Explain what follow-up actions you might undertake in order for the training to further enhance the work in your institution/organization.**

**SWIM-SM would appreciate receiving your feedback with regards to the results of your follow up actions**

**13 of YOU ANSWERED THESE QUESTIONS**

# **Extracts from Participants on Explain why the current training is relevant to your daily job**

- **Water degradation can ultimately lead to soil degradation. Water drainage into the soil effects land morphology and soil water content available to agriculture uses. The connection between water shortage and land and soil degradation is strong.**
- **I am currently a project manager for two projects that integrate climate change and water resources. The first project is called “Social, Ecological and Agricultural Resilience in the Face of Climate Change” (SEARCH) project . The second project “Regional Knowledge Network on Systemic Approaches to Water Resources Management” (R-KNOW)**
- **As an environmental and social compliance and monitoring officer working on North Gaza Sewage Treatment Plant, it is important for me to be acknowledge about the full picture of the water resource and how it is and it should be managed**
- **This training is of high concern to us since it leads to institutional strengthening and adds on national development plans**
- **The main mission of my unit in the Budget department in the Ministry of Finance is to allocate the required financial resources for the development of the water and agricultural sectors. One of the tasks and challenges is the recovery of polluted groundwater resources in the nexus of economic and environmental aspects**
- **The Ministry of Environmental Protection is in the process of starting a study, which will be conducted by external consultants via a tender, on the externalities and damages of different types of pollution, including water pollution and water overuse. As part of the study we will estimate on a yearly basis the ongoing routine damages of each type of pollution, the risks (damage expectancy)**
- **My research have always focused on the water resources management and costing.**
- **As a journalist in a widespread daily newspaper in Egypt specified in the environmental field and water, this workshop will be of great benefit to me in the preparation of the environmental topics and in raising the awareness of the importance of water as in my writings I ask the government and the decision-makers to take the necessary measures to prevent the cultivation of crops that need large amounts of water and encourage them to grow crops that are drought tolerant and consume small amounts of water.**

# **Extracts from Participants**

## **Explain your main expectations from this training and what tools it might give you to use in your future work**

- **Learn how to bridge the gaps among the water sources and the consumers in arid zone. I expect from this training to give me a wide overview on the problem. To show me the management tools on the watershed level, this time a cost benefit on large scale water systems**
- **I hope to explore innovative methods to balance between the environmental need and budget restraints.**
- **A good background on the theory behind the assessment tools equipped with clear handouts/ access to literature resource for extra knowledge and reading.**
- **An actual training on how to apply such tools on daily basis, based on the description of my tasks (as per my job requires).**
- **I hope to gain the knowledge, skills and tools needed to be able to assess the cost of water resources degradation since this will be an added value to all my current and future projects. This component will give a monetary value to water resources which will help to disseminate the message to a wider audience and hopefully push for policy change at the national level.**
- **Our main expectation is to widen our knowledge, specifically on issues relating to the economic valuation of health effects of water pollution.**
- **That access to knowledge from experts valuable water is great because of its benefit to workers in the field of water, especially in the Ministry of Water and Irrigation and the course of such will help us to discover new techniques in the management of water resources and will help to identify the important people and experts in the field of water management**
- **Most importantly, is to get to gain further knowledge from experts in the field of water management other than the academic expertise. Such training courses are always helpful in improving our understanding and in exploring new innovations and tools in the water resources management. moreover, it give the opportunity to meet the right people whom their experience is invaluable**

## **Extracts from Participants**

### **Explain what follow-up actions you might undertake in order for the training to further enhance the work in your institution/organization**

- **Ways to use better and wisely the gray water and avoid from pollution the Underground water.**
- **Increasing the people for water awareness.**
- **I think that this course give me opportunity to transfer knowledge that will acquired and transferred to my colleagues in the ministry and will help me to hold similar sessions in the Ministry of Water and Irrigation to help my colleagues here in Jordan and to help them and to answer some of their questions and give knowledge to private companies on water.**
- **I would suggest to draft these discussions and send it back to you to be shared also with all participants in order to maximize the benefit from such training. I would also expect other participants to do so and share their follow-up feedback with us and this could be achieved by allowing for a discussion poll**
- **Share experiences of lecturers to colleagues in the Environment Committee and the municipality**
- **Dissiminate the information learned from this training to my colleagues in the ministry of energy and water and explaining for them he results achieved.**
- **On the other hand, attributable to my profession I will write about these training sessions and the discussions that took place which I expect to enhance my information and experiences and publish them in the newspapers and I will send them to you when published**

# Precursors to the Expectations

- **Let us be REALISTIC**
- **It is not anticipated that in three days you will become environmental economists**
- **What is anticipated during these three days is for you to be introduced to new methodologies for**
  - **Asking pertinent questions on the monetary values of the cost of water resources degradation**
  - **Interpreting the results and present them in a simple manner to the decision makers**

# Workshop Atmosphere

- Relaxation: Be informal
- Inquisitive: Do not hesitate to ask questions
- Feed back : it is important for all the participants and for your animators
- If you do not acquire the knowledge, your animators will fail

مع خالص شكري  
وامتناني

Thank you  
for your attention

Merci pour  
votre attention



*For additional information please contact:  
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