



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

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**DROUGHT MANAGEMENT AS A NO-REGRET ACTION TOWARDS CLIMATE  
CHANGE**

**CONCEPT NOTE ON NO-REGRET ACTION FOR CLIMATE CHANGE ADAPTATION  
PILLAR**

**IN PREPARATION FOR THE 2ND STEERING COMMITTEE MEETING  
BRUSSELS 16 – 17 OCTOBER 2013**



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## I. PREAMBLE:

The impacts of CC on water resource in South Mediterranean Countries (SMCs) is affecting, with an acceptable degree of certainty, a wide range of socio-economic and environmental sectors including agriculture, health, food security, public safety, biodiversity, eco-tourism and hydropower production. The impacts of CC on the water sector in the SMCs will undermine national development plans, and affect human security and livelihoods. Most reliable CC prediction models indicate that the Mediterranean region is bound to witness more frequent, lengthy and intense episodes of droughts.

It is important to note that water scarcity and droughts are two different issues. Water scarcity describes a situation of long-term water imbalance, where water demand exceeds the level of water resources available. On the other hand, droughts are the expression of a temporary decrease in average water availability. The primary cause of drought is usually rainfall deficiency most likely caused by CC as a key driver. Higher air temperatures and evapo-transpiration rates may act in combination with lower precipitation to exacerbate the acuteness and duration of droughts.

According to the World Bank (2007) climate change will increase the occurrence of droughts: an effect which is already materializing in the Maghreb, with an increasing of drought frequency from one event every 10 years in the beginning of the 20th century, to five or six events every 10 year currently.

Since drought has recently become more frequent and leads, in many cases, to serious disasters like displacement of people, death livestock as well as degradation of natural resources, SWIM countries have become more aware and concerned with this problem and some progress in dealing with drought has been achieved. However, these efforts remain below expectations and need to be revised and reformed. The current adopted approach is mostly based on crisis management and not too much on risk management. The problem is further complicated by the limited and scattered drought data at the national and regional levels. Furthermore, drought assessment and monitoring programs are neither integrated nor complete.

On the positive side, some SWIM-SM countries have already adopted measures to reduce the impacts of water scarcity and droughts resulting from CC by improving water demand management within their IWRM plans. Others have not taken yet such action. Increasingly this is creating a situation where river basins and groundwater aquifers could be affected by water scarcity and droughts, with no consideration being given to prior prevention and/or adaptation measures.

With the assistance from international organizations, SWIM countries have focused on drought relief measures. In fact, as a response to recent reoccurring droughts, most of SWIM countries have established ad-hoc entities for drought management where different concerned ministries are represented to coordinate efforts to deal with the drought crisis and its impacts.

No-regrets actions, including drought management, are precautionary measures that can be justified from socio-economic and environmental perspectives whether climate change take place or not and would diminish risks from droughts.

Following the fact finding missions undertaken by SWIM-SM during the inception period and implementation of the first phase of the project the following facts were revealed:

1. Serious concern is prevailing among water officials on the potential risks of climate change in the form of frequent recurrence of droughts in PCs beyond the normal average.
2. Technical assistance is needed to depart from crisis management approach to risk management approach



of drought and develop drought policies for SWIM-SM PCs.

3. Build the capacity of water practitioners, planners, developers, etc. on drought management using a risk management approach to avoid future irreversible socio-economic problems.

Previous no-regret efforts of SWIM-SM:

Within the context of no-regret actions, SWIM-SM developed and implemented its 2012 plan of action to include the following:

1. Production of a report entitled "Development of Guidelines for Mainstreaming Climate Change No-regret actions into IWRM Policies". The report is aiming at the development of a stepwise guideline on mainstreaming water sector climate change no-regret actions into IWRM national policies and plans.
2. Organized a training workshop to develop the capacity of water and environment professionals in SWIM-SM PCs to undertake immediate precautionary measures towards the adaptation of the water sector to potential negative impacts of climate change including drought.
3. Identification and catering of no-regret actions for the water sectors in Jordan and oPt to adapt to projected impacts of climate change with special emphasis on drought and flood risks management. (postponed based on instructions from EC to synergize with upcoming CC regional program)

## **II. ORIENTATION OF 2013 & 2014 ACTIVITIES:**

Based on the outcomes of the assessment of no-regret actions activities undertaken during SWIM-SM 2012 by SWIM-SM to adapt the water sector in PCs to CC, views and recommendations of the water officials during field visits and contacts with stakeholders, SWIM-SM is responding by refocusing its scope of work to react to the emerging real needs of its PCs in its future plan of actions for the years 2013-2014. This path rectification is based on results and recommendations emanating from first year 2012 program implementation and on the necessity of synergy with partner organizations dealing with the issue to guarantee complementarities and avoid duplication. Furthermore, the opinion expressed by National Focal Points (NFPs) and EU Delegations (EU-Del) at the national level were considered in proposing the 2013-2014 plan of actions which would include drought as an issue of main concern to the region in the CC no-regret action activities.

It was evident that there is an urgent need to endeavor on no-regret actions designed to improve drought preparedness of SWIM-SM PCs through i- increased knowledge and awareness; ii- better drought management policies based on risk rather than crisis management and iii- contingency plans with the view of reducing community's vulnerability and enhancing their resilience towards future drought episodes.

SWIM-SM is therefore refocusing its CC no-regret scope of work towards supporting PCs in:

- 1- Assessing drought frequency of occurrence, delineating the affected areas and identifying the population and economic sectors affected the most;
- 2- Developing specific drought policies, within the context of long-term sustainable management of water resources;
- 3- Enhancing preparedness for increasing droughts through the development of drought mitigation plans and measures;



- 4- Supporting PCs develop their capacities to mitigate droughts impacts on the environment, economy and society.

### **III. OBJECTIVES OF PROPOSED CC NO-REGRET ACTIVITIES FOR 2013-2014.**

The overarching objective of the CC no-regret activities proposed for the year 2013-2014 is to support SWIM-SM PCs in developing specific drought policies and plans within their long-term sustainable management of water resources with the view of reducing vulnerability and enhancing communities' resilience.

Specific objectives can be listed as follows:

- 1- To assess drought frequency of occurrence, delineate the affected areas and identify the population and economic sectors affected the most;
- 2- To enhance the understanding and awareness of droughts in SWIM-SM PCs as an increasing hazard, how it relates to CC as a main driver and its potential environmental and socio-economic impacts.
- 3- To develop specific drought policies and contingency plans based on risk management with the aim of enhancing preparedness for increasing and extending drought's episodes.
- 4- To develop the capacities of SWIM-SM PCs to mitigate droughts impacts, on the environment, economy and society; reduce vulnerability and improve communities' resilience in SWIM-SM PCs.

### **IV. EXPECTED OUTCOMES:**

- Better understanding and awareness of past drought episodes characteristics, their frequency, geographic distribution, and potential drought relation to CC as a driver.
- Identified and recorded traditional water sectors responses to past drought episodes, and probable indigenous success stories in drought management practices for potential replication.
- Identified socio-economic and environmental impacts of drought and drought most sensitive sectors, communities, and ecological systems in selected SWIM-SM PCs.
- Drought management policies and plans based on risk management of drought including drought contingency plans catered to the socio-economic and environmental specificities of the SWIM-SM region.
- Better capacity in SWIM-SM PCs in the management of drought episodes to reduce vulnerabilities and enhance resilience of affected communities.

### **V. PROPOSED ACTIVITIES:**

In order to materialize the abovementioned objectives, SWIM-SM is proposing to undertake several activities and capacity development during 2013 and 2014 as follows:



**ACTIVITY I: Regional Assessment of past drought episodes and their management in Selected SWIM-SMPCs (Morocco, Tunisia, Jordan and oPt). (2013)**

The main objective of this activity is:

1. To review and develop an inventory of past drought episodes in selected SWIM-SM PCs including frequency, duration, geographic distribution, affected communities and identify potential linkage to CC.
2. To review and analyse the official water sector reactions and traditional communities response to past drought episodes and identification of lesson learnt and potential indigenous best practices in drought management.
3. To conceptually assess the socio-economic and environmental impacts of drought in SWIM-PCs including the identification of the most vulnerable socio-economic sectors and sensitive ecological systems.

**ACTIVITY II Development of guidelines for drought mitigation policies and assess institutional and technical capacities available at the national level to identify the capacity building need for the better management of drought episodes with emphasis on tools and techniques to reduce vulnerability of sensitive socio-economic sectors. (2014)**

Based on the outcomes of activity I, the main objective of this activity will include:

- 1- Review of best international drought management and mitigation practices that are based on drought risk rather than drought crisis management; and analyse their compatibility to the SWIM-SM regional specificities.
- 2- Conduct a study for the development of a framework for drought mitigation policies that is built on international best practices considering regional characteristics and utilizing an integrated approach encompassing relevant sectors, water, agriculture, environment, tourism, etc.
- 3- Knowledge map institutional and technical capacities available at the national level to identify the capacity building need for the better management of drought episodes with emphasis on tools and techniques to reduce vulnerability of sensitive socio-economic sectors.

**ACTIVITY III CONVENE A REGIONAL CONSULTATIVE MEETING TO VALIDATE PROPOSED DROUGHT MANAGEMENT POLICIES AND PLANS. (2014)**

- 1- Following dissemination of the proposed framework for drought management policies and plans, SWIM-SM will call for a regional consultative meeting for water and environment stakeholders including international and regional experts on drought management to review, deliberate, discuss, propose amendments, validate and approve the proposed drought management policies for the SWIM-SM region.
- 2- The meeting is expected to identify the areas in need for capacity building and pave the road for future regional activities to better manage drought and reduce communities' vulnerability.

**ACTIVITY IV: DEVELOP CAPACITY OF WATER & ENVIRONMENT STAKEHOLDERS FOR BETTER MANAGEMENT OF DROUGHT EPISODES. (2014)**

A capacity development workshops is planned to train water officials on the fundamentals of drought management and best practices from around the world through training and demonstrations. This will encompass:



1. the organization and convening of a capacity development workshop on potential impacts of drought episodes on drought sensitive sectors, mitigation measures and tools, methods for reduction of communities' vulnerability, mobilization of resources for drought contingency plans, etc.
2. Organization of 10 days study tours in European countries with experience in planning and managing drought episodes and adaptation of the water sector to climate change.

## **VI. REFERENCES:**

- The World Bank, (2007) Middle East and North Africa Region (MENA), Sustainable Development Department (MNSSD), Preliminary draft for consultation and feedback, Region Business Strategy to Address Climate Change, (4 Nov. 2007), available at <http://www.wds.worldbank.org/serlet/WDSContentServer/WDSP/IB/2003/06/30/0000949446-0306190405385/Rendered/Index/multiOpage.txt>
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