



Concept Note

“Potential Regional Activities related to Drought Risk Management (DRM) Mainstreaming in the Partner Countries”

SWIM and H2020 Support Mechanism

May 2017

Version	Document Title	Authors	Review and Clearance
1	Concept Note “Potential Regional Activities related to Drought Risk Management Mainstreaming (DRMM) in the Partner Countries”	Maggie Kossida	Suzan Taha Michael Scoullos



TABLE OF CONTENTS

1.	INTRODUCTION	3
1.1	BACKGROUND	3
1.2	OBJECTIVES OF THE CONCEPT NOTE	5
2.	REGIONAL ACTIVITIES ON DRMM.....	5
3.	ROADMAP FOR THE DRMM REGIONAL ACTIVITIES	5
3.1	REGIONAL TRAINING WORKSHOPS	5
3.2	STUDY TOUR	10
3.3	PEER-TO-PEER	10
3.4	REGIONAL PRODUCTS	12
	ANNEX 1 – REGIONAL ACTIVITIES ON DRMM.....	15
1.	METHODOLOGY	15
2.	ANALYSIS OF THE DRMM REGIONAL ACTIVITIES	17
2.1	ACTIVITY DRMM-WORKSHOP (W1)	17
2.2	ACTIVITY DRMM-WORKSHOP (W2)	18
2.3	ACTIVITY DRMM-WORKSHOP (W3)	19
2.4	ACTIVITY DRMM-WORKSHOP (W4)	20
2.5	ACTIVITY DRMM-WORKSHOP (W5)	21
2.6	ACTIVITY DRMM-WORKSHOP (W6)	22
2.7	ACTIVITY DRMM-WORKSHOP (W7)	23
2.8	ACTIVITY DRMM-WORKSHOP (W8)	24
2.9	ACTIVITY DRMM-REGIONAL PRODUCT (RP1)	25
2.10	ACTIVITY DRMM-REGIONAL PRODUCT (RP2)	26
2.11	ACTIVITY DRMM-PEER TO PEER (P2P)	27
2.12	ACTIVITY DRMM-STUDY TOUR (ST)	28



1. INTRODUCTION

1.1 Background

Under the framework of the SWIM-SM project, a regional assessment¹ of past drought and flood events in the SWIM Partner Countries (PCs) was undertaken in 2013, in order to identify their prevailing characteristics (frequency of occurrence, severity/magnitude, and geographic extent) and potential environmental and socio-economic impacts. The assessment also included an overview of prevailing drought management practices and response actions implemented in three focus countries (Jordan, Palestine and Tunisia). The main finding of the regional assessment, in terms of drought risk, indicated an increasing trend in the occurrence of drought episodes in the partner countries, highlighted the existing gaps in drought management, and concluded that effective response to drought risk is paramount. In this regard, the introduction and/or promotion of concepts and methodologies for proactive management in the region is necessary for shifting from the customary “crisis management” paradigm to “risk management”. A well-established risk management system which entails the identification of vulnerability and risk, and incorporates prevention, mitigation and preparedness measures needs to be developed and maintained by governments and other competent actors of the countries of the region. This in turn requires, inter alia, the adoption of enabling policies, robust legal frameworks and proper institutional arrangements at the national and local levels, implementing awareness campaigns, promoting resilience through knowledge, advocacy, research and training, making information available and to up-to date, etc.

Underpinning the above findings, during the Fact Finding (FF) missions of SWIM-H2020 SM in 2016, and the communicated priorities by the PCs, drought risk management emerged as one of the priority themes for the region. More specifically, Egypt, Jordan, Palestine and Tunisia requests relate directly to drought risk managements aspects, while requests from Lebanon, Algeria and Morocco are also linked with to drought and water scarcity risk mitigation.

Along these lines, and as part of its workplan, SWIM-H2020 SM has launched a regional activity on “Drought Risk Management Mainstreaming (DRMM) in the partner countries”. The current Concept Note aims at framing regional activities that can be undertaken in relation to the SWIM-H2020 DRMM activity, and is based on the discussions and findings of the “1st Regional Training on Drought Risk Management Mainstreaming (DRMM)” held in Athens, Greece on 14-15 December 2016.

The concept of Drought Risk Management Mainstreaming (DRMM) was introduced by the UNDP (UNDP, 2011²). Mainstreaming is defined as “a process of change, whereby certain issues are integrated into planning and decision-making processes and these issues continue to be part of the agenda in subsequent planning, implementation and revision”

¹ Taha, S., Rabi, A., Touzi, S. 2014. Regional assessment of past drought & flood episodes and their management in selected SWIM-SM PCS (Tunisia, Jordan and Palestine). SWIM-SM Report, WP1, Water Governance and Mainstreaming, Activity 1.3.3.1, February 2014 (accessed 28.03.2016)

² United Nations Development Programme (UNDP), 2011. Mainstreaming Drought Risk Management: A primer. UNDP Publication, March 2011 (accessed 28.03.2016)



(UNDP, 2008³). DRMM clearly relates to proactive risk management, as it helps addressing drought issues not simply as a natural phenomenon but as a more complex development issue. It supports the internalization of drought risk throughout the planning, funding and implementation stages of any development framework, and further ensures that sectors' policies do not counter their intended purposes of drought mitigation and preparedness-related efforts (UNDP, 2011²). It further sets the cornerstones towards the identification and development of the proper enabling environment and institutional setting that can strengthen the adaptive capacity of the affected communities in a sustainable way. To achieve DRM mainstreaming a set of steps need to be coherently implemented:

- Step 1: Definition and development of a Drought Risk Profile
- Step 2: Identification of DRM options: Design and simulation of mitigation measures
- Step 3: Prioritization of DRM options: Optimization and Decision-making
- Step 4: Internalization of DRM: Definition of policy targets and Implementation

It is important to make here the distinction between *drought* and *water scarcity*. Drought is an extreme meteorological phenomenon, which may come unannounced and be of indefinite duration, being the result of the combined action of several parameters. The drought is not limited to specific areas, and is not only a problem for dry and desert areas. Instead, drought in areas characterized by significant amounts of rainfall causes many more problems than those in arid regions, as ecosystems in areas with dry climate are accustomed to survive with little moisture, whereas, in areas with wet climate, it is even possible for ecosystems to be destroyed if the amount of rainfall is significantly reduced.

According to the EU Communication on Water Scarcity and Drought (EC, 2007⁴) "Drought" means a temporary decrease in water availability due to causes such as precipitation deficiency, whereas "Water Scarcity" means a situation in which the demand for water exceeds - in sustainability conditions - the exploitable water resources. Drought, dryness, water scarcity and desertification are common and overlapping processes in Mediterranean countries and are often misinterpreted when used. To clarify these concepts the following definitions are given (MEDROPLAN, 2007⁵):

Drought: Natural casual (random) temporary condition of consistent reduction in precipitation and water availability with respect to normal values, spanning along a significant period of time and covering a wide region. It is caused by natural causes.

Aridity: Natural permanent climatic condition with very low average annual or seasonal precipitation compared to potential evapotranspiration. It is caused by natural causes.

Water Scarcity: Water scarcity occurs when the available water resources are not enough to meet the long-term water needs. It refers to a long-term imbalance between available water resources and demand in a region (or a water supply system) exceeding the service capacity of the natural system. Water scarcity results from the rapid increase in water demand and/or low available water resources, due to population growth, expansion of water consuming crops, etc. It is also caused by the lack of

³ United Nations Development Programme (UNDP), 2008. Mainstreaming Drylands Issues into National Development Frameworks: Generic Guidelines and Lessons Leant. Nairobi: UNDP.

⁴ EC, 2007. Communication from the Commission to the Council and the European Parliament, Addressing the challenge of water scarcity and droughts in the European Union. Brussels, 18.07.07, COM(2007)414 final.

⁵ MEDROPLAN, 2007. Iglesias A. (ed.), Moneo M. (ed.), López-Francos A. (ed.). Drought management guidelines technical annex. Zaragoza: CIHEAM / EC MEDA Water, 2007. 496 p. (Options Méditerranéennes : Série B. Etudes et Recherches; n. 58)., No. 58, Options Méditerranéennes) ISSN: 1016-1228 – ISBN: 2-85352-359-4



infrastructure in water management (dams, water transmission and distribution systems, etc.). In addition to the quantitative aspect, water scarcity may also arise from poor quality status of the available water resources, which, although being enough in terms of quantity, may however be polluted by point or diffuse sources of pollution and are therefore not available for human consumption.

In arid (or semi-arid) regions, drought is a very common and frequent situation since is very difficult to distinguish low from very low rainfall. One might say that drought is the normal meteorological condition.

1.2 Objectives of the Concept Note

The activities to be undertaken by SWIM-H2020 SM related to DRMM cover a wide spectrum of themes and cut across the project's Work Packages of the Technical Assistance services: Expert Facility (EF), peer-to-peer experience (P2P) sharing and dialogue, training activities, etc. The current concept notes aims at:

- Prioritizing the DRMM regional activities on the basis of criteria (demand, added value, expected impact and constraints), based on the input received by the PCs during the "1st Regional Training on (DRMM)" held in Athens, on 14-15 December 2016;
- Presenting the objectives and expected outputs of the identified regional activities;
- Suggesting a Roadmap for the implementation of the selected DRMM regional activities.

2. REGIONAL ACTIVITIES ON DRMM

The methodology followed in this Concept Note in order to identify and prioritize relevant DRMM regional activities, as well as their analysis are presented in Annex 1 of this document.

3. ROADMAP FOR THE DRMM REGIONAL ACTIVITIES

3.1 Regional Training Workshops

The results of the overall rank of the suggested training workshops, sorted in descending order (from highest rank to lowest rank) are presented in Table 3.2 below. The final grading was based on the blending of the individual scores for each of the four criteria (1: demand, 2: added-value, 3: expected impact, 4: constraints). The following classification was made to assign a grade to each score (Table 3.1). The final grading was calculated based on the following equation:

$$\text{Final Grade} = [\text{Grade of criterion1} + \text{Grade of criterion2} + \text{Grade of criterion3} + \text{Grade of criterion4}] \div 4$$



Table 3-1 Grades assigned to each score for the four selected criteria

Score	Grade
Low (L)	1
Medium (M)	2
High (H)	3

The three highest grades were attained by the following proposed workshops:

- DRMM-W1 - Drought Hazard analysis and mapping (Grade: 3.0)
- DRMM-W2 - Drought Vulnerability analysis and mapping (Grade: 2.75)
- DRMM-W3 - Drought Risk profile synthesis and mapping (Grade: 2.5)
- DRMM-W5 - Capacity building on internalizing drought risk management (Grade: 2.5)

Recommendations/ Follow-up actions:

A Regional Training Workshop will be held in mid-2018 focusing on “Drought Hazard analysis and mapping” (DRMM-W1). The possibility to have an additional session on “Drought Vulnerability analysis and mapping” will be explored during that workshop, subject to the time constraints, resources of the workshop and the progress of the relevant EF activities, since the first ranked priority is the training on drought hazard analysis.



Table 3-2: Overall ranking of the suggested training workshops

Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
DRMM-W1	Drought Hazard analysis and mapping	Algeria, Jordan, Israel, Palestine, Tunisia	Training of technical staff on drought characterization using suitable indicators, on the development of indicators for declaring the drought alert, on the development of drought indices, other than the Standard Precipitation Index (SPI) (for example for hydrological and agriculture droughts), and on mapping of the drought hazard	Improved knowledge on the different types of drought indicators, improved technical capacity in the development of the indicators and their analysis to support decision-making, in the mapping of the drought hazard and the identification of hot-spots	H	H	H	H	3.00	1
DRMM-W2	Drought Vulnerability analysis and mapping	Algeria, Egypt, Jordan, Lebanon, Palestine	Training of technical staff on the identification and mapping of drought vulnerability using indicators suitable to the context and specificities of the area under investigations.	Improved knowledge on the different types of drought vulnerability indicators, improved technical capacity on the development of the indicators and their analysis to support decision-making, on the mapping of the drought vulnerability and the identification of hot-spots. Enhanced understanding of the interplay of socio-economic and anthropogenic factors in shaping vulnerability.	H	H	H	M	2.75	2
DRMM-W3	Drought Risk profile synthesis and mapping	Algeria, Jordan, Lebanon, Palestine	Training of technical staff on the synthesis and mapping of drought risk blending drought hazard and vulnerability indicators	Improved knowledge on the processes of blending various indicators, improved technical capacity on the development of drought risk profiles and their analysis to support decision-making, on the mapping of the drought risk and the identification of hot-spots.	M	H	H	M	2.50	3



Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
DRMM-W5	Capacity building on internalizing drought risk management	Algeria, Egypt, Tunisia	Training of policy and decision-makers, and stakeholders from different sectors on governance aspects related to the internalization of drought risk management. Improved understanding of the necessary legal framework (basis), the links with other sectional plans and policies, and issues related to the integration of DRM into the latter. Improved knowledge in identifying entry points and initiating mechanisms to internalize the DRM targets and measures. Improved understanding of the different pre-conditions and constraints. Capacity building on strengthening the governance between actors (institutional, organizational and technical capacities related to DRM governance and roles' allocation), and the	coordination/ cooperation of the involved stakeholders (local and regional) with a focus on DRM internalization.	M	H	H	M	2.50	4
DRMM-W6	Mechanisms for civil society participation in DRM	Tunisia	Training of policy, decision-makers and stakeholders involved in the implementation of DRM on how to mobilize and involve the civil society in DRM	Improved understanding on the role and added value of involving the civil society in DRM. Improved knowledge on mechanisms, activities and tools that can facilitate/ underpin the involvement and active participation of the civil society in DRM.	L	M	M	H	2.00	5



Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
DRMM-W7	Dissemination of the proactive DRM approach	Algeria	Training of policy makers on how to better disseminate the importance of proactive DRM, so that they can increase awareness at all levels (across sectors, across stakeholders at all levels, across all end-users and the general public)	Improved understanding on the importance of proactive DRM. Improved knowledge on mechanisms, activities and tools that can facilitate/ underpin the wide dissemination of this approach across all levels and sectors. Improved knowledge on methods and tools that can support the dissemination of drought-related information (e.g. drought declaration, impacts, measures, results of projects, etc.)	L	M	M	M	1.75	6
DRMM-W8	Methodology for the development of Drought Risk Management Plans (DRMPs)	Algeria, Tunisia <i>(transition from a DRM guide to an action plan)</i>	Training of high-level technical staff on the steps and activities to implement towards the development of DRMPs.	Improved knowledge on the steps and activities required to develop a DRMP. Improved knowledge on specific methods and tools that can underpin this process.	L	M	M	L	1.50	7
DRMM-W4	Training on how to use the WEAP in simulating/ testing measures	Jordan	Training of technical staff on the simulation and ex-ante testing of demand management measures (focused on demand reduction or water supply increase) within the WEAP21 (Water Evaluation and Planning System)	Improved technical capacity on the usability and application of the WEAP21 software, improved knowledge on how to design and test (via simulation) demand management measures within the WEAP21 (simulation of the key parameters of the measures in terms of costs and benefits), improved understanding on the costs and benefits of the measures and their performance against a physical-based distributed model	L	L	L	L	1.00	8



3.2 Study Tour

Following the same grading approach as in the regional training workshops (see section 3.1) the Study Tour related to Drought Risk Management (DRM) was highly ranked (grade: 2.75; refer to Table 3.3 below).

Recommendations/ Follow-up actions:

A Study Tour in an area/ country with good experience and practices on DRMM aspects will be held in mid-2018, back-to-back with the On-site Regional Training Workshop DRMM-W1.

Table 3-3: Overall ranking of the suggested Study Tour

Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
DRMM-ST	Study Tour related to DRM	Algeria, Jordan, Lebanon, Palestine, Tunisia	Undertake a Study Tour in an area/ country with good experience and practices on DRMM aspects, namely on drought characterization and development of indicators, on development of drought risk profiles, and on drought risk management (with potential emphasis on groundwater). Select, if possible, a site experiencing similar conditions to the PCs.	Exchange of experiences on issues related to the DRMM, capacity building for the PCs, establishment of cooperation within the region and beyond	H	H	H	M	2.75	1

3.3 Peer-to-peer

Following the same grading approach as in the workshops (see section 3.1) the Peer-to-Peer (P2P) activity related to Drought Risk Management Mainstreaming (DRM) was highly ranked (grade: 2.5; refer to Table 3.4 below).

Recommendations/ Follow-up actions:

A peer-to-peer mechanism set up will be commenced in July 2017, but full P2P operation/exchange



will commence by December 2017, once the Expert Facility activities related to DRMM aspects have gained considerable momentum.

The SWIM-H2020 SM team will coordinate the start-up of the activities, and will monitor/ follow-up on them, but it is up to the PCs to actually implement and materialize them. The following tentative schedule is proposed:

Step 1: Preparatory and match-making phase (duration: 5 months)

During this phase the following activities will be undertaken:

- Circulation to the PCs and the peers from the identified EU countries (Spain, Italy, UK) of the 2 selected topics (*these topics as have been selected on the basis that they were requested by most countries and peers were also available to support them; ref. to Table in section 2.11 of Annex 1*):
 - P2P on drought characterization with suitable indices
 - P2P on mainstreaming DRM and on methods/ approaches to involve the civil society in DRM
- Collection of feedback from the PCs (signing up on which topic they want to follow) and match-making process (PCs-peers)
- Production of short information note from the NKE who coordinates the P2P on the expected outputs/ achievements from the P2P, and the planned interactions.

Step 2: Implementation phase (duration: 11 months)

- Bilateral interaction of the PCs with the peers
- Joint Webinar (WEB-4)
- Face-to-face Meeting (dedicated session as part of REG-7)
- Report on the outcomes of the P2P (to be drafted by the NKE who coordinates the P2P)

Table 3-4: Overall ranking of the suggested Peer-to-peer activity

Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
DRMM-P2P	Peer-to-peer on DRMM issues	Algeria, Egypt, Israel, Jordan, Lebanon, Palestine, Tunisia	Peer-to-peer training on selected issues related to DRMM (namely with regards to (1) drought characterization with suitable indices and (2) mainstreaming DRM)	Improved knowledge on selected issues related to the DRMM (drought characterization with suitable indices and mainstreaming DRM), capacity building among the PCs,	H	H	H	L	2.50	1



Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
				establishment of cooperation and alliances among the PCs.						

As already mentioned above, a regional Webinar will be organised (tentatively in January 2018) to support the P2P process. The webinar will be in the form of a moderated interactive session and it will include live presentations, discussion, Q&A via chat, other interactive elements (e.g. video, demonstration, exercises). The narrow focus of the webinar will be selected based on the necessities that have emerged during the P2P and/or the elements that can be showcased from the relevant work on DRMM under the Expert Facility. The following material will be available prior and after the webinar:

- Participants' list
- i-calendar invitation
- Webinar preparatory documents
- Presentations and other audio-visual material
- Webinar recording.

3.4 Regional Products

During the DRMM 1st Regional on-site Training (14-15 Dec 2016), the idea to hold some joint regional work towards the development of some specific regional products (namely an e-platform for exchange on best practices, success stories, PCs experiences on DRM from the region and a Handbook/Manual on DRM internalisation for the region) emerged. Following the same grading approach as in the workshops (see section 3.1) the product-oriented activities related to Drought Risk Management Mainstreaming (DRM) were also ranked (refer to Table 3.5 below).

The SWIM-H2020 can support this work, and coordinate the drafting process, yet specific input and feedback will rely on the PCs. In case this input is not received, or is not on time, the whole drafting process is jeopardized. Thus a real commitment is required from the PCs' side, not only to start-up the platform, but also to maintain it and update it with new information.



Recommendations/ Follow-up actions:

The product-oriented activities (joint regional work towards the development of some specific regional products) were not as highly ranked as the selected Workshops or the Study Tour, mainly due to the identified constraints despite the high added-value and the expected impact. These constraints relate to the fact that the development of such a regional products (Web-platform, Handbook/ manual of DRM internalization for the region) require significant input from the PCs and different sectorial stakeholders and their commitment. Issues related to data sharing protocols, also apply for the case of the web-platform.

The SWIM-H2020 can support this work, and coordinate the design and development process (specific input and feedback will rely on the PCs), but resource limitations currently apply. Thus, this potential activity is considered for a future time and/or in case additional resources can be identified since the impact and added-value for the region is high.

Table 3.5: Overall ranking of the suggested “regional product” activities

Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
DRMM-RP2	Development of a regional e-platform on DRM	Egypt, Lebanon, Palestine	Development of an e-platform for exchange on best practices, success stories, PCs experiences on DRM from the region. The platform could also be used for data exchange, as well as have an observatory module (i.e. regional drought monitoring system)	Capacity building and cross-fertilization based on distant learning, in terms of sharing of experiences, best practices, good/bad examples and applications, etc. on DRM.	M	H	H	L	2.25	1
DRMM-RP1	Handbook on DRM internalisation	Egypt	Development of a Handbook/Manual on DRM internalisation for the region based on joint effort and work undertaken by the PCs and supported by the SWIM-H2020 SM	A Handbook on DRM internalization for the Region. This Handbook will be tailored to the regional context and specificities, articulating a stepwise process and a methodology on how to achieve internalization of DRM in national and regional action plans and development programmes.	L	H	H	L	2	2



Regional Activity Code	Topic	Requested by	Objective	Output	Ranking					
					Demand	Added-value (at the regional level)	Expected impact (at the regional level)	Constraints	Final Grade	Overall Rank
				For example it will include a list of entry points at different levels (local, national, regional), it will explore the synergies with various regional initiatives, programmes and strategies, it will explore specific constraints and enabling factors, etc.						



ANNEX 1 – REGIONAL ACTIVITIES ON DRMM

1. METHODOLOGY

The following steps have been followed in the current Concept Note in order to identify and prioritize relevant DRMM regional activities:

- Collection of written input (through Questionnaires) from the PCs on issues around DRMM and on the focus of the regional activities in order to accommodate their priority need (ref. to Annex in the Workshop Report⁶)
- Open discussion with PCs during the “1st Regional Training on (DRMM)”, held in Athens, Greece on 14-15 December 2016, in order to jointly identify with them a list of potential DRMM regional activities linked to their priority needs (ref. to Table 1.1)
- Analysis of the objectives and expected outputs of the identified regional activities
- Analysis of the links of the suggested regional activities with relevant activities under the SWIM-H2020 Expert Facility
- Prioritizing the DRMM regional activities on the basis of criteria, (demand, added value, expected impact and constrains).

Table 1-1: DRMM regional activities identified by the PCs during the “1st Regional Training on (DRMM)” Athens, 14-15/12/2016”

Country	Regional Activities	Peer-to-peer	Study Tour
Algeria	<ul style="list-style-type: none"> ▪ Define the means and policies for managing drought risks; ▪ Mapping of vulnerability and degree of exposure to drought; ▪ Adoption and dissemination of the proactive approach required in the case of drought risk management; ▪ Methodology for the development of drought a risk management plan; ▪ Capacity-building for water resource management and strengthening of governance between sectors; ▪ Strengthen institutional, organizational and technical capacities related to governance and integrated water resource management 	Need for: <ul style="list-style-type: none"> ▪ Strengthening on the dissemination of information and on the follow-up of projects and ideas related to drought risk management 	Rely on the SWIM-H2020 SM expertise in the field to choose the site
Egypt	<ul style="list-style-type: none"> ▪ Workshop on coordination and cooperation mechanisms for all stakeholders (local and regional) with a focus on DRM internalisation. All kind of interactions, role playing games, 	Need for: <ul style="list-style-type: none"> ▪ Environmental and water sector linkages (learn more on how 	

⁶ Kossida, M., Zarris, D., Taha, S., 2017. SWIM-H2020 SM Workshop Report “1st Regional Training on Drought Risk Management Mainstreaming (DRMM)”. SWIM-H2020 SM Publication, February 2017



Country	Regional Activities	Peer-to-peer	Study Tour
	<p>interventions, etc.</p> <ul style="list-style-type: none"> Training of national specialists on the development of technical socio-economic indicators to be used in DRM Development of an Handbook/Manual on DRM internalisation Create a website (in 3 languages) with all expertise, success stories, good practices, failures from the region/ PCs experiences on DRM. This website could be also used for data exchange and sharing (?) 	<p>these linkages started, how they were institutionalised, etc.)</p>	
Jordan	<ul style="list-style-type: none"> Training on drought characterisation using indicators Training on mapping drought vulnerability Training on how to use the WEAP in simulating/testing measures 	<p>Need for:</p> <ul style="list-style-type: none"> peer-to-peer on mainstreaming DRM Peer-to-peer on using WEAP to test measures <p>Can offer:</p> <ul style="list-style-type: none"> peering on groundwater vulnerability and protection (e.g. Palestine), peering on GIS applications in watershed management 	<p>Related to drought characterisation and the development of indicators</p>
Israel	<ul style="list-style-type: none"> Development of drought indices, other than the SPI that is currently available (for example for hydrological and agriculture droughts) 	<p>Can offer:</p> <ul style="list-style-type: none"> Israel has an operational early warning system for drought based on seasonal precipitation input. The system can be further improved presenting also soil moisture and stream flow based on ECMWF and CFS forecast. Shafting of this experience and possible inclusion of other PCs in the system 	
Lebanon	<ul style="list-style-type: none"> Training on Drought Risk Profile (local application) Developing Drought Risk Profiles using existing models or the WEAP Develop a regional product on Drought Vulnerability Develop a regional website for exchange of best practices and data 	<p>Need for:</p> <ul style="list-style-type: none"> Assisting in the development of a Drought Risk Profile in a selected pilot area 	<p>Visit a country that has developed a drought risk profile</p>
Palestine	<ul style="list-style-type: none"> Drought Hazard mapping 	<p>Need for:</p>	<p>Visit a country</p>



Country	Regional Activities	Peer-to-peer	Study Tour
	<ul style="list-style-type: none"> Vulnerability analysis and assessments in relation to drought, rainfall and its effect on groundwater and vegetation cover Drought Risk Profiling and identification of drought risk indicators (drought characterization indices) Changes in the runoff recharge / flood Workshops on the above topics. Nature of workshops: interactive, exercises, presentations, case studies, group work, focus groups Development of joint regional products: a regional drought monitoring system, a regional data exchange system 	<ul style="list-style-type: none"> Drought characterization with suitable indices How to apply drought prediction models 	that has similar groundwater conditions with success stories of drought risk management
Tunisia	<ul style="list-style-type: none"> Tunisia has a Drought Risk Management (DRM) guide, which deals with the methodological aspect and mechanisms of DRM, as well as past experience of previous events. However, an action plan based on this guide that includes several steps is required. To this end, it was proposed to address the 1st step of the DRMM method, namely the choice of indicators to be adopted for declaring the drought alert. The involvement of civil society is necessary for DRM in the context of good governance. A workshop is proposed to bring together the participating countries to discuss mechanisms for civil society participation in DRM 	Need for: <ul style="list-style-type: none"> DRM indicators Methods/ approaches to involve the civil society in DRM 	Visit a country with similar conditions as Tunisia (e.g. Spain, Jordan).

2. ANALYSIS OF THE DRMM REGIONAL ACTIVITIES

In this section the DRMM regional activities identified by the PCs are analysed in detail. For each activity, the topic and its link to the DRMM methodological steps has been identified, the PCs that have requested it, the type of the activity, its objective and output. The proposed regional activities are categorised according to their types, namely training workshops (W), regional products (RP), Peer to Peer (P2P), and Study Tours (ST). Finally an expert ranking according to specific criteria (demand, added value, expected impact, constraints) has been performed for each activity.

2.1 ACTIVITY DRMM-Workshop (W1)

Topic: Drought Hazard analysis and mapping

Link to DRMM steps: Step 1 (Drought Risk Profile)

Requested by: Algeria, Jordan, Israel, Palestine, Tunisia

Type of Activity: Workshop



Objective: Training of technical staff on drought characterization using suitable indicators, on the development of indicators for declaring the drought alert, on the development of drought indices, other than the Standard Precipitation Index (SPI) (for example for hydrological and agriculture droughts), and on mapping of the drought hazard.

Output: Improved knowledge on the different types of drought indicators, improved technical capacity in the development of the indicators and their analysis to support decision-making, in the mapping of the drought hazard and the identification of hot-spots

Ranking criteria:

Criteria	Score	Comment
demand	H	Requested by 5/8 PCs
added value (at the regional level)	H	According to the Q1 (See Annex in the Workshop Report ⁶) only 3 countries (DZ, IL, TN) have performed an assessment of the drought hazard, yet even these PCs have requested further capacity building on this topic
expected impact (at the regional level)	H	The activity can lead to the development of common/ harmonized indicators for the drought hazard analysis in the region and allow for inter-comparisons, integrated assessments, etc.
constraints	H	Minor constraints: some basis knowledge on drought analysis and time-series analysis is required by the participants. This can be mitigated by selecting suitable participants, having adequate technical background, for the workshop

2.2 ACTIVITY DRMM-Workshop (W2)

Topic: Drought Vulnerability analysis and mapping

Link to DRMM steps: Step 1 (Drought Risk Profile)

Requested by: Algeria, Egypt, Jordan, Lebanon, Palestine

Type of Activity: Workshop

Objective: Training of technical staff on the identification and mapping of drought vulnerability using indicators suitable to the context and specificities of the area under investigations.

Output: Improved knowledge on the different types of drought vulnerability indicators, improved technical capacity on the development of the indicators and their analysis to support decision-making, on the mapping of the drought vulnerability and the identification of hot-spots. Enhanced understanding of the interplay of socio-economic and anthropogenic factors in shaping vulnerability.

Ranking criteria:

Criteria	Score	Comment
demand	H	Requested by 5/8 PCs
added value (at the regional level)	H	According to the Q1 (See Annex in the Workshop Report ⁶) only 1 country (DZ) has performed an assessment of the drought hazard, yet even this PC



		has requested further capacity building on this topic. Additionally, not all PCs have performed a detailed assessment of freshwater resources availability (i.e. one of the main components of vulnerability)
expected impact (at the regional level)	H	The activity will help the decision-makers and planners to understand the underlying drivers of vulnerability and be able to target specific pressures, implementing suitable measures to alleviate the impacts of drought. The activity can also stimulate collaboration among the PCs into mapping drought vulnerability hot spots in the region following a common methodology
constraints	M	Some constraints apply, due to the fact that vulnerability is often context-specific and thus different indicators may be relevant in each case. This can in turn add some difficulty in the training since the level of detail that need to be communicated to each participant country may be different (due to different local contexts) and customization in the training may be required (which may not be feasible within the workshop duration)

2.3 ACTIVITY DRMM-Workshop (W3)

Topic: Drought Risk profile synthesis and mapping

Link to DRMM steps: Step 1 (Drought Risk Profile)

Requested by: Algeria, Jordan, Lebanon, Palestine

Type of Activity: Workshop

Objective: Training of technical staff on the synthesis and mapping of drought risk blending drought hazard and vulnerability indicators

Output: Improved knowledge on the processes of blending various indicators, improved technical capacity on the development of drought risk profiles and their analysis to support decision-making, on the mapping of the drought risk and the identification of hot-spots.

Ranking criteria:

Criteria	Score	Comment
demand	M	Requested by 4/8 PCs
added value (at the regional level)	H	According to the Q1 (See Annex in the Workshop Report ⁶) only 1 country (DZ) has performed an assessment of the drought risk, yet even this PC has requested further capacity building on this topic
expected impact (at the regional level)	H	The activity will help the decision-makers and planners to understand the underlying drivers of drought risk and be able to target specific pressures to alleviate the impacts of drought planning for proactive measures. The activity can also stimulate collaboration among the PCs into mapping drought risk hot spots in the region following a common methodology



constraints	M	<p>Some constraints apply, due to the fact that risk profiling is based on the synthesis of drought hazard and vulnerability. It is thus a pre-condition that participants are knowledgeable of the methods/indicators used for the assessment of hazard and vulnerability, have a common understanding and a similar level of technical knowledge.</p> <p>This can in turn add some difficulty in the training since the level of detail that need to be communicated to each participant country may be different if they are not fully familiar with the previous steps required prior to synthesizing risk profiles.</p>
-------------	---	--

2.4 ACTIVITY DRMM-Workshop (W4)

Topic: Training on how to use the WEAP in simulating/ testing measures

Link to DRMM steps: Step 2 (Identification of DRM options, Design and simulation of mitigation measures)

Requested by: Jordan

Type of Activity: Workshop

Objective: Training of technical staff on the simulation and ex-ante testing of demand management measures (focused on demand reduction or water supply increase) within the WEAP21 (Water Evaluation and Planning System)

Output: Improved technical capacity on the usability and application of the WEAP21 software, improved knowledge on how to design and test (via simulation) demand management measures within the WEAP21 (simulation of the key parameters of the measures in terms of costs and benefits), improved understanding on the costs and benefits of the measures and their performance against a physical-based distributed model.

Ranking criteria:

Criteria	Score	Comment
demand	L	Requested by 1/8 PCs
added value (at the regional level)	L	According to the Q1 (See Annex in the Workshop Report ⁶) the PCs have not performed an assessment of the drought risk. Testing of measures via simulation pre-requires that the risk is defined so that there is a concrete focus on where and what measures to target via the simulation. It may be thus pre-mature to conduct a specific training on the ex-ante simulation and testing of measures if targets and priorities for the measures do not exist.
expected impact (at the regional level)	L	The activity will help the decision-makers and planners to understand the underlying drivers of drought risk and be able to target specific pressures to alleviate the impacts of drought planning for proactive measures. The activity can also stimulate collaboration among the PCs into mapping drought risk hot spots in the region following a common methodology (on



Criteria	Score	Comment
		the basis of a common modeling approach using WEAP21)
constraints	L	Constraints apply: the trainees must be competent WEAP21 users already, with knowledge of the WEAP21 software functionalities in order to be able to follow this advanced topic. To maximize the impact of the workshop the training must be performed hands-on using an existing WEAP model of the area, which is disaggregated and well calibrated.

2.5 ACTIVITY DRMM-Workshop (W5)

Topic: Capacity building on internalizing drought risk management

Link to DRMM steps: Step 4 (Internalization of DRM, Definition of policy targets and Implementation)

Requested by: Algeria, Egypt, Tunisia

Type of Activity: Workshop

Objective: Training of policy and decision-makers, and stakeholders from different sectors on governance aspects related to the internalization of drought risk management. Improved understanding of the necessary legal framework (basis), the links with other sectional plans and policies, and issues related to the integration of DRM into the latter. Improved knowledge in identifying entry points and initiating mechanisms to internalize the DRM targets and measures. Improved understanding of the different pre-conditions and constraints. Capacity building on strengthening the governance between actors (institutional, organizational and technical capacities related to DRM governance and roles' allocation), and the coordination/cooperation of the involved stakeholders (local and regional) with a focus on DRM internalization.

Output: Improved technical capacity on integrating DRM into sectorial plans and development frameworks (understanding of the various links, identifying possible entry points, initiating instruments and mechanisms to internalize the DRM targets, etc.). Improved governance and cooperation among the various stakeholders through a clear understanding and sharing of roles and responsibilities.

Ranking criteria:

Criteria	Score	Comment
demand	M	Requested by 3/8 PCs
added value (at the regional level)	H	According to the Q1 (See Annex in the Workshop Report ⁶) 5 countries have listed legislative & regulatory, institutional and coordination issues as main constraints/ gaps in effectively managing drought risk in the country (i.e., lack of relevant policy, regulatory texts, guidance/ implementation documents, lack of competent authorities & responsible actors, lack of a dedicated "drought task force", confusion in roles allocation, poor enforcement and control, lack of a proper coordination mechanism among stakeholders at different levels, lack-of interest, conflicts of interest, etc.)



Criteria	Score	Comment
expected impact (at the regional level)	H	The activity will help the policy and decision-makers, and the stakeholders from different sectors to understand key elements of DRM internalization and integration with other sectorial policies and plans. It will also act as a building block towards the development of better governance schemas and improved coordination of key actors involved in DRM
constraints	M	Constraints apply: for an effective training a wide variety of stakeholders (from different sectors and decision-making and planning levels) must attend, thus increasing a lot the number of attendees to a level that the workshop moderation may become problematic. Additionally, as governance issues are country specific, a workshop at the regional/ sub-regional level may not be able to touch on the specific issues of each PCs (i.e. required depth for each case), focusing more on overarching common issues.

2.6 ACTIVITY DRMM-Workshop (W6)

Topic: Mechanisms for civil society participation in DRM

Link to DRMM steps: Step 4 (Internalization of DRM, Definition of policy targets and Implementation)

Requested by: Tunisia

Type of Activity: Workshop

Objective: Training of policy, decision-makers and stakeholders involved in the implementation of DRM on how to mobilize and involve the civil society in DRM

Output: Improved understanding on the role and added value of involving the civil society in DRM. Improved knowledge on mechanisms, activities and tools that can facilitate/ underpin the involvement and active participation of the civil society in DRM.

Ranking criteria:

Criteria	Score	Comment
demand	L	Requested by 1/8 PCs
added value (at the regional level)	M	According to the Q1 (See Annex in the Workshop Report ⁶), 3 countries have listed public involvement, equity and acceptability among the main constraints/ gaps in effectively managing drought risk in the country.
expected impact (at the regional level)	M	The activity will help the policy and decision-makers, and the stakeholders from different sectors to understand the importance of the participation of the public in DRM and the benefits of adopting a participatory approach. Additionally, they will be trained on methods and tools that they can implement to increase the civil society involvement and adopt a participatory process.



Criteria	Score	Comment
constraints	H	Minor constraints

2.7 ACTIVITY DRMM-Workshop (W7)

Topic: Dissemination of the proactive DRM approach

Link to DRMM steps: All Steps

Requested by: Algeria

Type of Activity: Workshop

Objective: Training of policy makers on how to better disseminate the importance of proactive DRM, so that they can increase awareness at all levels (across sectors, across stakeholders at all levels, across all end-users and the general public)

Output: Improved understanding on the importance of proactive DRM. Improved knowledge on mechanisms, activities and tools that can facilitate/ underpin the wide dissemination of this approach across all levels and sectors. Improved knowledge on methods and tools that can support the dissemination of drought-related information (e.g. drought declaration, impacts, measures, results of projects, etc.)

Ranking criteria:

Criteria	Score	Comment
demand	L	Requested by 1/8 PCs
added value (at the regional level)	M	According to the Q1 (See Annex in the Workshop Report ⁶), 4 countries have characterized their country's approach to managing drought as rather re-active (crisis management – when the drought comes we try to alleviate the symptoms). It is thus an added-value to increase awareness about proactive DRM and its inherent benefits, linked to the adoption of mitigation and adaptation measures that can increase the resilience of the affected systems/ communities.
expected impact (at the regional level)	M	The activity will help the policy makers to use proper mechanisms to disseminate the importance of proactive DRM (targeting different audiences), which in turn can mobilize a shift of paradigm from reactive to proactive DRM, and further facilitate the set-up of a well-planned and articulated DRM plan endorsed by various stakeholders and the general public. Additionally, the dissemination of general information about drought (declaration, impacts, etc.) will help end-users to better understand the importance of the issue and behave more sensitively.
constraints	M	Some constraints apply: Dissemination campaigns are designed in a customized way to meet the specific needs of the target audience(s), i.e. no one solution fits all purposes. As such guidelines on suitable mechanisms



Criteria	Score	Comment
		and tools can be elaborated during the training but these are always subject to the specificities of the users'/ target groups' behavior in a country or even area.

2.8 ACTIVITY DRMM-Workshop (W8)

Topic: Methodology for the development of Drought Risk Management Plans (DRMPs)

Link to DRMM steps: All Steps

Requested by: Algeria, Tunisia (*transition from a DRM guide to an action plan*)

Type of Activity: Workshop

Objective: Training of high-level technical staff on the steps and activities to implement towards the development of DRMPs.

Output: Improved knowledge on the steps and activities required to develop a DRMP. Improved knowledge on specific methods and tools that can underpin this process.

Ranking criteria:

Criteria	Score	Comment
demand	L	Requested by 2/8 PCs
added value (at the regional level)	M	According to the Q1 (See Annex in the Workshop Report ⁶), 4 countries have characterized their country's approach to managing drought as rather re-active (crisis management – when the drought comes we try to alleviate the symptoms). It is thus an added-value to increase awareness about proactive DRM and its inherent benefits, linked to the adoption of mitigation and adaptation measures that can increase the resilience of the affected systems/ communities.
expected impact (at the regional level)	M	The activity will help the policy makers to use proper mechanisms to disseminate the importance of proactive DRM (targeting different audiences), which in turn can mobilize a shift of paradigm from reactive to proactive DRM, and further facilitate the set-up of a well-planned and articulated DRM plan endorsed by various stakeholders and the general public. Additionally, the dissemination of general information about drought (declaration, impacts, etc.) will help end-users to better understand the importance of the issue and behave more sensitively.
constraints	L	Constraints apply: The development of DRMPs is a very wide topic, while the content of DRMPs depends on the specificities of the area under investigation. Of course a methodological process and concrete steps towards the development of DRMPs can be prescribed, and staff can be trained on this, yet it rather requires a series of training workshops,



Criteria	Score	Comment
		undertaken side-by-side to the actual development process (back-to-back training with implementation). Given the time and resources constraints of the current activity, only high-level general guidelines can be provided, which are of course valuable, but not customized.

2.9 ACTIVITY DRMM-Regional Product (RP1)

Topic: Handbook on DRM internalisation

Link to DRMM steps: Step 4 (Internalization of DRM, Definition of policy targets and Implementation)

Requested by: Egypt

Type of Activity: Product-oriented (Joint regional work to develop a Handbook)

Objective: Development of a Handbook/Manual on DRM internalisation for the region based on joint effort and work undertaken by the PCs and supported by the SWIM-H2020 SM

Output: A Handbook on DRM internalization for the Region. This Handbook will be tailored to the regional context and specificities, articulating a stepwise process and a methodology on how to achieve internalization of DRM in national and regional action plans and development programmes. For example it will include a list of entry points at different levels (local, national, regional), it will explore the synergies with various regional initiatives, programmes and strategies, it will explore specific constraints and enabling factors, etc.

Ranking criteria:

Criteria	Score	Comment
demand	L	Requested by 1/8 PCs
added value (at the regional level)	H	According to the Q1 (See Annex in the Workshop Report ⁶), 5 countries have listed legislative & regulatory, institutional, coordination, and financial issues as main constraints/ gaps in effectively managing drought risk in the country (i.e., lack of relevant policy, regulatory texts, guidance/ implementation documents, lack of competent authorities & responsible actors, lack of a dedicated “drought task force”, confusion in roles allocation, poor enforcement and control, lack of a proper coordination mechanism among stakeholders at different levels, lack-of interest, conflicts of interest, no financing mechanisms and/or sources to implement DRM, etc.)
expected impact (at the regional level)	H	The activity will help the policy and decision-makers, and the stakeholders from different sectors to have a practical tool for achieving DRM internalization and integration with other sectorial policies and plans. On the basis of this Handbook they can further draft/ tailor their own process for internalization, develop improved governance schemas and a better coordination of key actors involved into DRM. As this activity will conclude



Criteria	Score	Comment
		with a tangible product it is considered highly valuable.
constraints	L	Constraints apply: The development of such a regional product (Handbook/manual of DRM internalization) requires significant input from the PCs and different sectorial stakeholders. The SWIM-H2020 can support this work, and coordinate the drafting process; yet specific input and feedback will rely on the PCs. In case this input is not received, or is not on time, the whole drafting process is jeopardized. Thus a real commitment is required from the PCs' side.

2.10 ACTIVITY DRMM-Regional Product (RP2)

Topic: Development of a regional e-platform on DRM

Link to DRMM steps: All Steps

Requested by: Egypt, Lebanon, Palestine

Type of Activity: Product-oriented (Joint regional work to develop a Web platform)

Objective: Development of an e-platform for exchange on best practices, success stories, PCs experiences on DRM from the region. The platform could also be used for data exchange, as well as have an observatory module (i.e. regional drought monitoring system)

Output: A common e-platform for exchange of information (and maybe data) across the region. Capacity building and cross-fertilization in terms of sharing of experiences, best practices, good/bad examples and applications, etc. on DRM.

Ranking criteria:

Criteria	Score	Comment
demand	M	Requested by 3/8 PCs
added value (at the regional level)	H	According to the Q1 (See Annex in the Workshop Report ⁶), 5 countries listed technical issues among the main constraints/ gaps in effectively managing drought risk in the country (e.g. lack of technical knowledge and in-depth expertise, lack of necessary monitoring infrastructure, inadequate characterization of the hazard, confusion in the purpose and objectives of DRM, lack of in-depth assessments of the cost-effectiveness and suitability of the potential measures, etc.). The proposed e-platform allows for exchange of best practices and experiences which is valuable in resolving technical issues.
expected impact (at the regional level)	H	The activity will help staff and stakeholders at various levels (local to national, technical to policy and decision-makers) to share experiences, learn on good practices from the region and "educate" themselves around DRM aspects. Furthermore, if the platform is used for data exchange and/or if an observation module is further developed to monitor drought at



Criteria	Score	Comment
		the regional level it is a significant infrastructure for the region, with great added-value.
constraints	L	Constraints apply: The development of such a regional product (Web platform) requires significant input from the PCs and different sectorial stakeholders. Furthermore, if the platform is used for data exchange and for monitoring drought at the regional level (on top of being a site for exchanging best practices) agreements among the PCs are necessary regarding the data sharing, ownership, rights, intellectual property rights (IPR), etc. The SWIM-H2020 can support this work, and coordinate the design and development process, yet specific input and feedback will rely on the PCs. In case this input is not received, or is not on time, the whole process is jeopardized. Thus a real commitment is required from the PCs' side, not only to start-up the platform, but also to maintain it and update it with new information.

2.11 ACTIVITY DRMM-Peer to Peer (P2P)

Topic: Peer-to-peer on DRMM issues

Link to DRMM steps: All Steps

Requested by: Algeria, Egypt, Israel, Jordan, Lebanon, Palestine, Tunisia

Type of Activity: Peer-to-peer (P2P)

Objective: Peer-to-peer training on selected issues related to DRMM

Output: Improved knowledge on selected issues related to the DRMM, capacity building among the PCs, establishment of cooperation and alliances among the PCs.

Topic	Demand	Offer
P2P on how to strengthen the dissemination of information and the follow-up of projects and ideas related to DRM	Algeria	
P2P on environmental and water sector linkages (learn more on how these linkages started, how they were institutionalized, etc.)	Egypt	UK
P2P on mainstreaming DRM	Jordan, Palestine	UK, Italy
P2P on using WEAP21 to test measures	Jordan	
P2P on groundwater vulnerability and protection	Palestine	Jordan
P2P on GIS applications in watershed management		Jordan
Israel has an operational early warning system for drought based on seasonal precipitation input. The system can be further improved presenting also soil		Israel



Topic	Demand	Offer
moisture and stream flow based on ECMWF and CFS forecast. Sharing of this experience and possible inclusion of other PCs in the system		
P2P on developing a Drought Risk Profile in a selected pilot area	Lebanon	
P2P on drought characterization with suitable indices	Palestine, Tunisia	Spain, Italy
P2P on applying drought prediction models	Palestine	Israel, Spain
P2P on methods/ approaches to involve the civil society in DRM	Tunisia	UK

Ranking criteria:

Criteria	Score	Comment
demand	H	Requested by 7/8 PCs
added value (at the regional level)	H	The establishment of a P2P network is an added-value to the regional cooperation and the enhancement of common understanding, processes and approaches. Through this P2P interaction, additional regional activities can emerge, and Communities of Practice (CoPs) can be developed.
expected impact (at the regional level)	H	Enhanced knowledge of the trainees on selected issues related to the DRMM, capacity building among the PCs, establishment of cooperation and alliances among the PCs, enhancement of common understanding and processes around DRMM issues
constraints	L	Constraints apply: P2P is strongly based on the willingness and initiative of the PCs. The SWIM-H2020 SM can mobilize and encourage the process, but the PCs need to actually get involved in its implementation through regular exchanges, webinars, etc.

2.12 ACTIVITY DRMM-Study Tour (ST)

Topic: Study Tour related to DRM

Link to DRMM steps: All Steps

Requested by: Algeria, Jordan, Lebanon, Palestine, Tunisia

Type of Activity: Study Tour (ST)

Objective: Undertake a Study Tour in an area/ country with good experience and practices on DRMM aspects, namely on drought characterization and development of indicators, on development of drought risk profiles, and on drought risk management (with potential emphasis on groundwater). Select, if possible, a site experiencing similar conditions to the PCs.

Output: Exchange of experiences on issues related to the DRMM, capacity building for the PCs, and establishment of cooperation within the region and beyond.



Ranking criteria:

Criteria	Score	Comment
demand	H	Requested by 5/8 PCs
added value (at the regional level)	H	Exposure to real-case applications, opportunity to meet international motivated professionals and exchange with them
expected impact (at the regional level)	H	Enhanced knowledge of the trainees on selected issues related to the DRMM through exchanges with the Study Tour staff, capacity building for the PCs, establishment of cooperation and alliances within the region and beyond. New vision towards cooperation and partnerships, new emerging opportunities for joint projects.
constraints	M	Constraints apply: The success of a Study Tour is also strongly based on the willingness and motivation of the PCs participants to exchange with the professionals at the site and propagate the knowledge gained to their colleagues at home. It also needs to be mentioned that one Study Visit can not necessarily cover all aspects/request, as it may provide a good practice example for one certain issue. Transfer of knowledge to the PC participants is also subject to their own interaction with the study tour professionals.