EXPERT FACILITY ACTIVITY NO: EFS-PS-1

MAINSTREAMING DROUGHT RISK MANAGEMENT

DELIVERABLE 1: MEMO ON THE ROLES AND RESPONSIBILITIES OF THE APARC, INCLUDING TASK ALLOCATION AMONG ITS MEMBERS

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THE SWIM AND H2020 SUPPORT MECHANISM PROJECT

(2016-2019)

The SWIM-H2020 SM is a Regional Technical Support Program that includes the following Partner Countries (PCs): Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, [Syria] and Tunisia. However, in order to ensure the coherence and effectiveness of Union financing or to foster regional co-operation, eligibility of specific actions will be extended to the Western Balkan countries (Albania, Bosnia Herzegovina and Montenegro), Turkey and Mauritania. The Program is funded by the European Neighbourhood Instrument (ENI) South/Environment. It ensures the continuation of EU's regional support to ENP South countries in the fields of water management, marine pollution prevention and adds value to other important EU-funded regional programs in related fields, in particular the SWITCH-Med program, and the Clima-South program, as well as to projects under the EU bilateral programming, where environment and water are identified as priority sectors for the EU co-operation. It complements and provides operational partnerships and links with the projects labelled by the Union for the Mediterranean, project preparation facilities in particular MESHIP phase II and with the next phase of the ENPI-SEIS project on environmental information systems, whereas its work plan will be coherent with, and supportive of, the Barcelona Convention and its Mediterranean Action Plan.

The overall objective of the Program is to contribute to reduced marine pollution and a more sustainable use of scarce water resources. The Technical Assistance services are grouped in 6 work packages: **WP1**. Expert facility, **WP2**. Peer-to-peer experience sharing and dialogue, **WP3**. Training activities, **WP4**. Communication and visibility, **WP5**. Capitalizing the lessons learnt, good practices and success stories and **WP6.** Support activities.

1 BACKGROUND

The objective of this Expert Facility activity is to support Drought Risk Management Mainstreaming (DRMM) and to develop a robust methodology for carrying out vulnerability assessments of groundwater resources.

The activity that is subject to this report aims at setting up participatory approaches with the stakeholders towards the establishment of an Aquifer Protection Advisory and Review Committee (APARC).

The expected outcome is the definition of roles and responsibilities for each member of the APARC and having conducted the 1st meeting of the APARC. This is further discussed in the following chapters of this report.

2 INTRODUCTION

Palestinian Water Resources, consisting at present mainly of groundwater (including springs), are vulnerable to climate change and drought. The Palestinian Water Authority (PWA), as the legal entity responsible for managing and protecting water resources, contemplates to protect the aquifers in the country. In this sense there are three major issues of concern:

It is predicted in relevant documents that climate change in the Eastern Mediterranean will very probably lead to less rainfall and a different rainfall character and hence may impact the recharge of the aquifer. This concerns the amount of rainfall, but also its intensity, which both have an impact on recharge. As such changes are beyond the control of the Palestinian Authorities, the question is mainly how to respond to these.

The rapidly increasing urbanization, the accompanying paving, asphalting and sealing of soil surfaces to infiltration is another concern, in particular with regard to aquifer recharge. This concern can only be addressed by protecting the most important infiltration zones against intensive urbanization and eventually introduce compensating infiltration measures.

Due to uncontrolled pollution, the quality of groundwater resources may deteriorate to an extent that part of the resources becomes unusable (keywords: salinity, nitrates, and toxic substances). This concern can be answered by introducing groundwater quality protection zones that limit certain economic activities in those zones.

The purpose of this document is not to describe or discuss which measures should be taken, but to assist in creating a discussion platform in which stakeholders can communicate and dialogue on how to address aforementioned issues.

3 OBJECTIVES OF APARC

a. To **discuss and in mutual dialogue achieve consensus on implementing measures** proposed by PWA (as resource manager) with regards to the impacts of such measures on other involved sectors/stakeholder sections.

b. To assist PWA in the implementation of approved measures in the respective sectors/stakeholder sections.

c. To guide other stakeholders (like local authorities) in actions to protect aquifers within their relevant competence.

4 STAKEHOLDERS / COMPOSITION OF THE COMMITTEE

Several stakeholders in Palestine have interests in the issues mentioned in Chapter 2. Some of these have a management task or a scientific interest, some are water consumers, others are polluters or otherwise negatively impacting water resources. A short analysis of stakeholders that should be involved in the dialogue is presented hereafter.

Water managers

- ***The Palestinian Water Authority (PWA).*** PWA has the full responsibility for managing water resources in Palestine. Among others it is responsible for setting water allocations for various sectors and protecting the resources and their surrounding environment through the establishment of protection zones to prevent pollution. PWA has water quality monitoring responsibilities regarding water resources and has without doubt also the authority to establish rules and regulations for protecting the recharge of the aquifer, although this needs to be done in cooperation and coordination with relevant local authorities. Protection of the recharge is hampered by lack of control of Area C, where PWA has no authority. Protection measures should therefore also be discussed with Israelis as far as politically opportune (Link with the Joint Water Committee?).
- ***The Ministry of Agriculture (MoA).*** Its interest is to have as much as possible water available for the irrigated agriculture sector. It does not manage quantity and quality of water resources but is involved in demand management by encouraging responsible and efficient water use in irrigation, including advice on cropping patterns, water saving technology and economy of water use, and the increasingly important use of reclaimed wastewater.
- ***The Environmental Quality Authority (EQA).*** Its task is to safeguard water resources (and the environment in general) from pollution caused by different sources, being untreated wastewater, industrial pollution, solid waste, among others. EQA is involved in the protection of the quality of the aquifer.

- ***The Ministry of Local Government (MoLG).*** The Ministry supervises local government units (LGUs) and is responsible for promoting the decentralization of the LGUs and enhancing their role in sustainable local development, and for institutionalizing community participation. As such, the Ministry has an important role in guiding municipalities and Joint Service Councils to manage solid waste and water distribution.

Scientific

- ***The Palestinian Meteorological Department (PMD).*** The Department is responsible for the collection of rainfall and climate data, without which drought management would not be possible. The Department operates 13 synoptic stations (11 in the West Bank and 2 in Gaza) and at present collects data from around 55 rainfall stations. It is thinkable that more or other data will be needed in future to exercise proper drought management; they should therefore be part of the envisaged dialogue.
- ***Universities*** that doing scientific research on climate change and groundwater protection; one can think of Birzeit University, but there are others. They can bring in scientific evidence for the design and support of the implementation of measures contemplated by PWA.

Water Users

Water users (drinking water and sanitation) as such are not organized in a way that they can participate in a formal Committee. It is contemplated that local (elected) authorities and service providers represent such water users in the respective governments/regions.

- ***Governorates*****.** The start-up of the drought management exercise is proposed to take place in the Governorates of Jenin and Tulkarem, which were selected as pilot areas for the Development of a Drought Risk Profile and Definition of groundwater protection zones as part of one of the activities implemented by SWIM & H2020-SM. At least during the pilot phase of drought management development, a representative of each Governorate should sit in APARC to safeguard local interests of the population inside the relevant Governorate.
- ***Municipalities*****.** Elected municipal councils and mayors represent the people living in their area. They are supposed to stand for the interests of the people. Municipalities have a voice in urban planning and respective regulations, even though the spatial planning system is weak in Palestine, also because of the political situation. Municipalities should have a voice in the establishment of protection zones for both quality and aquifer recharge. They should be consulted on proposed protection measures. It should be noted that there are more than 400 municipalities (or more precise: local government units) in Palestine and not all could participate in APARC.
- ***Regional Water Utilities.*** In the future, the planned but not yet established Regional Water Utilities should be part of APARC.
- ***Farmers through Water User Associations*** in irrigated agriculture. They should in principle have an important voice in APARC (being probably the most affected by drought), but none have registered yet under the new bylaw which was adopted in August 2018)

NGOs

- ***The Palestine Hydrology Group (PHG).*** PHG has been involved in numerous hydrological and water resources studies and has secured a wealth of knowledge on these issues, including climate change, groundwater resources, water quality issues, among others. This knowledge can be very beneficial for APARC
- ***The Agricultural Development Association (PARC).*** PARC is a national developmental organization that strives to develop the agricultural sector and strengthen the resilience of farmers. PARC has abundant experience in treated wastewater reuse in agriculture since at least 2003 under the MEDA Water programme. Reuse is one of the most important drought management measures on the resource side. Reuse also results in less groundwater contamination. Participation of PARC in any committee on groundwater protection is therefore essential for knowledge transfer and providing the authorities with useful expertise.
- ***The Union of Agricultural Work Committees (UAWC)***. The Union works on projects to create job opportunities and distributing production inputs to farmers, supporting house gardens, house economy, providing drinking water resources for farmers and countryside inhabitants, in addition to programs of distributing aid, and work for food. Its work environment is directly impacted by climate change and drought.

More NGOs may be added, but their number should remain limited

5 ESTABLISHMENT OF THE COMMITTEE

The Committee should be established by Ministerial Decree and is proposed to be headed by PWA. This TOR or parts of it can be annexed or form the basis for such a decree.

It is proposed to have a phased start of the Committee: The first meetings could comprise PWA and MoA. Other government agencies and NGOs can be added according to needs. There is also the option that APARC starts more informal and at a small scale, and the official establishment with a complete set of stakeholders will follow later. This option would not need a ministerial decree, but just a Memo of Understanding between for instance PWA and MoA (and any other stakeholder that should join in an early stage)[1].

The Committee should, when discussing the activities and studies in the pilot areas, invite local authorities (governorate, main municipalities, and universities) to the relevant meetings.

1) During the first informal APARC meeting on 23 May 2018, it was decided among the participants (PWA, MoA and PMD) that the best option would be to establish the Committee by Ministerial decree (PWA), including aforementioned participants and with the option to extend it in the future with other stakeholders

6 IMMEDIATE TASKS OF THE COMMITTEE

1. In the two Pilot Areas: Organise meetings with local authorities whenever needed to induce dialogue on problems, solutions and measures. This is in particular relevant for the establishment of Groundwater Protection Plans.
2. Guide the SWIM component of the project activities with respect to quality and quantity (re-charge) of the aquifer protection (zones). Discuss methodology; discuss outputs and results.
3. Bring forward aquifer protection regulation in consultation with all relevant stakeholders.
4. Support integration of aquifer protection measures in regional and national drought plans and support mainstreaming protection Plans in other sectoral and local planning.

7 MEETINGS

Meetings should take place when discussions are needed but at least twice a year to discuss general progress on aquifer protection. Related to the above mentioned immediate tasks; a rough time schedule is provided here:

1. Meeting to discuss aquifer protection methodology and other drought related issues. This meeting took place on 24 May 2018. This meeting was facilitated by the SWIM GW expert.
2. Meeting after the aquifer protection methodology has been tested and first results are delivered; approx. October/November 2018. At the time of writing this report it is not sure that SWIM experts can participate in such a meeting.
3. Providing groundwater protection regulation is not a task of the SWIM-H2020 SM-project, although the needs for regulation will be discussed in the final report on groundwater protection.
4. Other meetings as deemed necessary by PWA or MoA.