Food and Agriculture Organization of the United Nations

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Near East and North Africa

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WATER SCARCITY BACKGROUND PAPER: EXECUTIVE SUMMARY

Solving water scarcity will require a multi-dimensional approach including assistance from decision-support tools to help national managers to find the right mix of water, food and energy options to best fit country situations. Once socially acceptable paths that enhance country comparative advantages are outlined and communicated, institutional capacity, policies and financing are needed to carry plans forward to create the desired outcomes and impacts.

Opportunities for horizontal expansion of the irrigated areas are limited in most regions. The focus has shifted to improving system performance and agricultural water productivity on existing irrigation schemes. The design and mode of operation of some irrigation schemes is outdated. Traditional service delivery is no longer appropriate where farmers are looking to have irrigation water on demand. New gains must come through participation with communities and water user associations who are increasingly demanding that their inputs be taken into consideration.

The Water Scarcity Initiative (WSI), launched in 2013, is a comprehensive approach led by FAO to facilitate sustainable management of water resources in the Near East and North Africa (NENA) Region, which is designed to better implement efforts in member countries by broadly demonstrating, communicating and transferring successes that may solve water scarcity problems in WSI-countries. WSI accomplishments reveal that remote sensing, geographic information systems (GIS) and modelling are skill sets possessed by national programs that can be in part attributed to the WSI. These decision-support tools are designed to simplify and optimize a complex set of options. Capacity development is key so that decision-makers can understand and trust the advice they get from staff.

Future efforts should emphasize building up of human resources capacity in partner countries and FAO so that the big advances can be shared and scaled out. Having the Ministries of Agriculture and Ministries of Water Resources to plan together for investment projects at the end of the Land and Water Days (LWDs) is a significant step forward. Two good examples from Egypt are abstracted in the paper for the reader to see how research moves through appropriate steps to policy formulation and scaling out: i.e., (a) the modernization of irrigation and (b) the mechanized raised bed technology.

WSI developed the Regional Collaborative Strategy on Sustainable Agricultural Water Management, which is a strategic document suggesting how to prioritize work.

It was agreed to focus on:

- Groundwater sustainability;
- Irrigation modernization;
- Water consumption (accounting), water productivity and water saving in agriculture;
- Climate change / drought management.

PARTNERSHIPS

The **UN Economic and Social Commission for Western Asia (ESCWA)** has a strong partnership with the WSI-related initiatives. Projects include FAO, the **League of Arab States (LAS)** and the **Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD)** as strategic partners in the implementation of the **Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR),** the RICCAR Regional Knowledge Hub, and the Food and Water Security in the Arab Region project (supported by the **Swedish International Development Agency (SIDA)**. SIDA also funded FAO's program to create a water accounting system, implement water efficiency / productivity framework and develop operational boundaries of water use in 8 out of 11 of the partner countries. The Dutch-funded global project that contributes significantly to the WSI is known as the FAO Water Productivity Open-access Portal (WaPOR), facilitating countries to identify land and water productivity gaps by using remote sensing and information/communication technologies.

This paper is also a stocktaking of progress and trends in the FAO-RNE portfolio, showing how it matches with the five themes chosen for the LWDs event. The themes are **Water Scarcity (WS)**, **Land Degradation (LD)**, **Climate Change (CC)**, **Land and Water Governance (GOV)** and **Investment (INV)**. The inventory provides a baseline status of projects in the FAO-RNE portfolio since 2013 to assess the degree to which FAO-RNE is addressing the above topics.

Analysis of FAO's project database shows:

11 partner states have formally joined the WSI in NENA including Algeria, Egypt, Iran, Jordan, Lebanon, Morocco, Oman, Tunisia, United Arab Emirates (UAE), West Bank and Gaza Strip (WBGS) and Yemen. The FAO-RNE portfolio is composed of global, regional and country projects with a total value of almost **$300** million (m) with a 90:10 split between country/regional programs, respectively. A significant portion of the regional funding goes to water related activities.

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$264 million
Total budget in national projects

45% is invested
in emergency projects funded by the Office for Special Relief Operations (OSRO).

A high percentage of FAO/OSRO funding goes to emergencies in fragile states:

Iraq **87%** Lebanon **50%**

Syria **77%** Yemen **92%**

Food Security, Livelihoods and Nutrition (FSLN) are topics frequently incorporated into OSRO projects.

- A review of the World Bank portfolio of active and pipeline projects in a sample of 5 NENA countries reveals ongoing and pipeline investments of **US$ 19.3 billion** with **US$2.8 billion** (15%) allocated to water projects. A more thorough analysis of International Financial Institution project portfolios will lead to a clearer understanding of how better to align WSI efforts.
- Using data from the International Fund for Agricultural Development (IFAD), a list of projects for 5 NENA countries was compiled showing a **US$765** m portfolio with themes of relevance to the WSI. IFAD is a natural partner to efforts such as the WSI because they would be in a good position to judge when and where to introduce the innovations coming out of this regional initiative.
- Importantly, at the end of the LWDs, ministers of water and agriculture meet jointly to consider additional joint programming and investment. The meeting will make decisions easier to reach on the tough trade-offs needed to solve water scarcity problems. Coordination between the Arab League and UN Secretariat uses FAO as a coordinating entity for the Working Group on Water, an important role for the years ahead.

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