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## Economic and Social Commission for Western Asia (ESCWA)

Second Jordanian National Workshop on AquaCrop for Irrigation Water Management  
Kempinski Hotel, Amman  
Jordan, 15-19 December 2019

### Information note

#### I. Background

The Arab region is facing severe natural water scarcity, evident from the long-term annual average precipitation at below 350 mm. Simultaneously, demand for water is increasing with water withdrawals exceeding water availability from internal sources. The agriculture sector is the largest user of water resources in the Arab region, yet, water use efficiency is characterized as being low due to wasteful irrigation practices and low investment levels in irrigation infrastructure. In addition to challenges related to water access, the agricultural sector in many Arab countries also faces challenges related to access to agricultural inputs, market access, poor infrastructure and storage facilities, in addition to weak investment in agricultural research and development.

In view of the above, comes the need to intensify efforts towards enhancing irrigation water efficiency, access to data, research outputs and new agricultural technologies, in addition to securing funding requirements and access to markets towards enhancing resilience and sustainability of the agricultural sector. ESCWA is implementing a Development Account project aimed at “Enhancing resilience and sustainability of agriculture in the Arab region” for that purpose, building on another ESCWA project on “Enhancing food and water security through cooperation and capacity building in the Arab region” funded by the Swedish International Development Cooperation Agency (Sida).

The project on “Enhancing resilience and sustainability of agriculture in the Arab region” focuses on national capacity building activities and policy guidelines are to be developed at the wider regional level. The combination of those is envisaged to inform decision making for enhanced integrated policy development towards enhancing the agricultural sector. Partners in the project include the Arab Center for the Studies of Arid Lands and Dry Zones (ACSAD), FAO Regional Office for Near East and North Africa, and the Arab Organization for Agricultural Development (AOAD).

The project will involve the development of training material and capacity building activities at the national level in focus countries, and policy guidelines are to be developed at the wider regional level. Project's activities will focus on three targeted Arab countries, Jordan, Lebanon and Palestine, which were selected due to the pressing agricultural challenges they face. For instance, Jordan is one of the most water scarce countries of the region, in addition to its high dependence on food imports despite high local vegetable production. Other challenges include the constant flow of refugees coupled with high population growth leading to increased pressure on natural resources. The "Second Jordanian National Workshop on AquaCrop for Irrigation Water Management" is part of the programmed activities of the project that ESCWA is organizing in collaboration with the Arab Center for the Studies of Arid Zones and Dry Lands.

## **II. Objectives**

The workshop targets the trainees of the first workshop organized for Jordan within the framework of the Development Account project, which was held during the period 27-31 October 2019 in Amman, Jordan.

The workshop aims at strengthening national capacities of Jordanian stakeholders on the use GIS tools for extracting and analyzing climate data developed within the framework of the Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR). It will also strengthen national capacities on the use of Aquacrop model for irrigation management, and on the use of Aquacrop model for the assessment of the impact of climate change on crop yields.

## **III. Thematic Areas**

The workshop will focus on applying the theoretical knowledge and knowhow gained in the first workshop through actual case studies, where participants will be grouped into teams to work on a specific case studies that include specific crops and geographical locations within the country. The selection of crops and location will reflect priorities of each country.

The workshop will include the following topics:

- Summary of RICCAR Climate Change Data;
- Introduction to NETCDF and Multidimensional Tools;
- Practical Exercise on Extracting Climate Change Data;
- Creation of Raster Files from NETCDF files;
- Creation of Tabular Time Series Data;
- Using Modular Builder to Create Time Series Data;
- Using Model Builder to Extract Climate Data for Defined Target Area;
- Review of the Use of AquaCrop for Irrigation Water Management;
- Using AquaCrop Plug-in Program;
- On-the-Job Training on Use of AquaCrop for Irrigation Water Management: Case Studies;
- Using AquaCrop for the Assessment of the Impact of Climate Change on Crop Yields.

#### **IV. Organizational issues**

##### **A. Participants**

Participants are agriculture and water specialists from the Jordanian Ministry of Agriculture specialized in the fields of irrigation and soil. This team was previously constituted by his Excellency the Minister of Agriculture upon the request of ESCWA.

##### **B. Date and venue**

The workshop will be held at the Kempinski.Hotel, Amman, Jordan. The duration of the workshop will be for five days, from 15 to 19 December 2019.

##### **C. Language**

The meeting will be conducted in the Arabic language.

##### **D. Registration and Logistical Issues**

Participants are asked to submit their letter of nomination, completed registration form and a color scanned copy of their passport to ESCWA no later than 28 November 2019 to be eligible for sponsorship. Sponsorship covers, a partially daily subsistence allowance and other expenses depending on the areas they are coming from, in accordance with United Nations Financial Rules and Regulations.

##### **E. Correspondence**

Correspondence related to the meeting should be directed to the following address:

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