A key challenge for Egyptian agriculture is to feed its increasing population in the context of a growing population, increasing demand on the finite water resources and trade deficit. Egypt’s population is expected to increase from 88 million in 2014 to reach 115 million in 2030 while a dependency on imports of strategic crops (such as wheat, yellow maize, and fava bean) persists.

Horizontal expansion in the new land in the desert has long been a key strategic target pursued by successive governments to meet this challenge.

Major land reclamation activities in Egypt have been initiated under the National Reclamation Project of 4 Million Feddan, aiming to increase agricultural land area by 2 percent so that the total Egyptian agricultural land becomes 9 percent of the total area of Egypt.

Within the Regional Initiative on Water Scarcity, FAO is piloting a data and information management system, based on monitoring and Remote Sensing (RS) data to assist the Ministry of Water Resources and Irrigation (MWRI) and the Ministry of Agriculture and Land Reclamation (MALR) in monitoring the water consumption and the water productivity associated with the newly reclaimed areas.
Objectives

- Establish a water accounting and monitoring system for water consumption at farm and groundwater aquifer level (monitoring extraction wells);
- Contribute to maximizing water productivity;
- Provide capacity building for the relevant technical staff and relevant stakeholders.

Activities

- Piloting a data and information management system, based on monitoring and RS data;
- Set up and test an automated water consumption monitoring and water accounting system at selected pilot areas;
- Quantitative assessments of water supply and consumption by different users (water metrics), particularly irrigation agriculture is essential in order to allow for educated decision making and respective system improvements;
- Quantification of actual productivity/efficiency of water use in irrigation agriculture in order to properly intervene to correct possible productivity gaps;
- Standard processes and methodologies for field data collection, analysis and provision of agricultural extension services through farmer field schools and farmer-to-farmer visits and other means of technology transfer.

Expected outcomes

- Producers and natural resource managers adopt practices that increase and improve agricultural sector production in a sustainable manner;
- Stakeholders make evidence based decisions in the planning and management of the agricultural sectors and natural resources to support the transition to sustainable agricultural sector production systems through monitoring, statistics, assessment and analysis.

Stakeholders

- Ministry of Water Resources and Irrigation (MWRI);
- Ministry of Agriculture and Land Reclamation (MALR) through the Agriculture Research Center;
- Farmer organizations and water user associations.

Project duration
1 February 2018 - 31 December 2019

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Lakes formed due to drainage problems due to over irrigation in Siwa.
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