

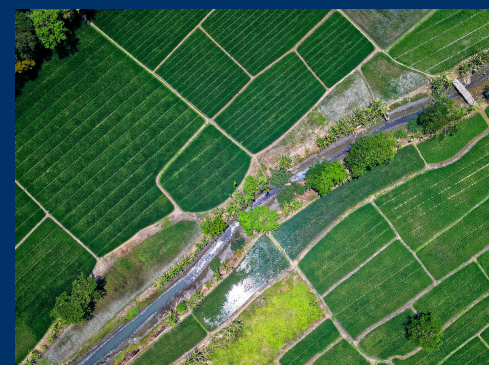
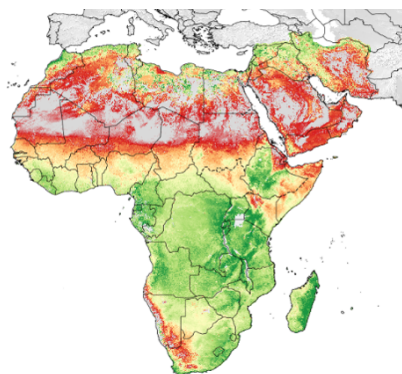
Data portal and smartphone apps for improved farm management

Project: A Practical Farmers' Toolkit

Geodata for climate smart agriculture in Egypt

Background

FAO's WaPOR portal provides open access satellite derived data on water consumption i.e. evapotranspiration (ET), crop production, and weather (rainfall and reference ET). Data is provided daily or at 10-day intervals with a resolution of 5-20 km for weather data, and 100 m in the whole of Egypt for the other datasets.



Challenges

The challenge in the field schools was to make the WaPOR data accessible and understandable in the field to make practical decisions. The information from the data portal is translated to a practical smartphone app for farm management developed in Egypt called IRWI (<https://irwicrop.com/>). This WaPOR app was used in the field school with maize fields, which is one of the crops available in the app.

The Farmers Toolkit as presented in this project contains various geodata tools applicable for farmers to assist their decision-making and adopt climate smart agricultural practices. This project launches a training program on these tools:

- Flying Sensors
- IrriWatch Irrigation Advisory
- WaPOR Portal and Apps
- Climate Risk Assessments

Results

The information given by the IRWI app regarding irrigation timing of the maize fields coincided with decisions the irrigation manager was taking, confirming good practices.

In another field school with mandarin trees, the water consumption (ET) was compared with flow measurements installed in the field. This was useful for approximating the irrigation performance and optimizing irrigation management.



The training providers consortium are tailoring the activities towards the requirements of the selected beneficiaries which are private companies, consultants, and NGO's, all active as extension officers in the agricultural sector of Egypt. The training program is a unique combination of face-to-face training, online teaching, and field schools conducted throughout the growing season of 2021.

Practical application

WaPOR data is freely available making it an attractive source of information for the agricultural sector. The field schools made use of the data portal interface and the IRWI smartphone app. The latter was valuable for practical use due to its accessibility in the field and the interface being in Arabic. Improvements are suggested from the participants on the interface and graphics of the app, to make it more understandable. Extension officers can make use of WaPOR data and apps to support:

- Farm management planning e.g. prediction in harvest quantity and timing
- Scheduling of irrigation events for different fields
- Determining irrigation performance of a field



Watch the project video
<https://youtu.be/aKE1dPGIqgg>

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