

CrosMoD

(Crop Stress Monitoring in the semi-arid context of Doukkala, Morocco)

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Scientific Background and Objectives



Agriculture is the largest and at the same time less modern consumer of water worldwide. Moreover, with the world's population projected to increase and with climate change effects, water scarcity conflicts will be exacerbated. Thus, improving crop production and water use management is a fundamental step to achieve sustainable food and water security.

One of the crucial problems currently facing the Moroccan irrigated area of **Doukkala** is the scarcity of water for irrigation,

Decrease in water resources

-Climate change and repetitive droughts
-Fluctuating rainfall with a decreasing trend

Increase in water demand

- Population growth
- Extension of irrigated agriculture
- Urban development
- Industrial Development
- Tourism development

Irrigated area of Doukkala

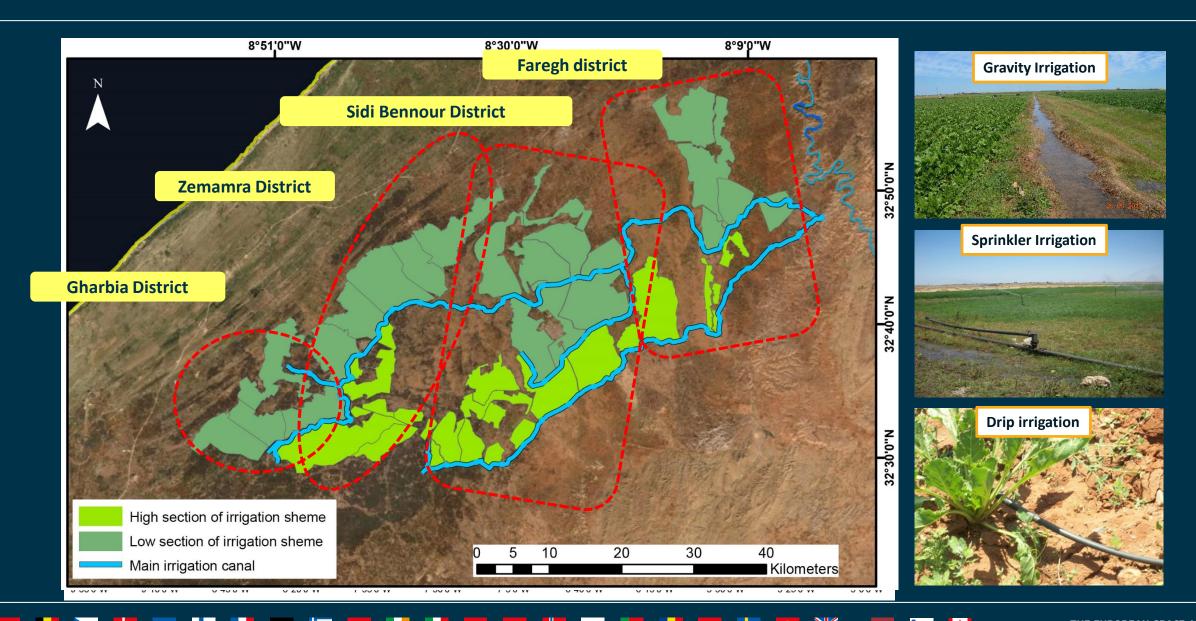
Irrigation is the main consumer of water (more than 85% of water mobilized)

with the irrigation management authorities which are not distributing irrigation water due to a shortage of water volume in the dam reservoirs. Hence there is the need to set up an adaptation strategy to help farmers to cope with this new situation.

The project aims at developing a procedure for crop yield estimates and extreme events crops shocks monitoring or pest and diseases by integrating multiple satellite data and water-energy-crop modeling, able to support farmers precision agriculture.

Study Area: Doukkala irrigation district

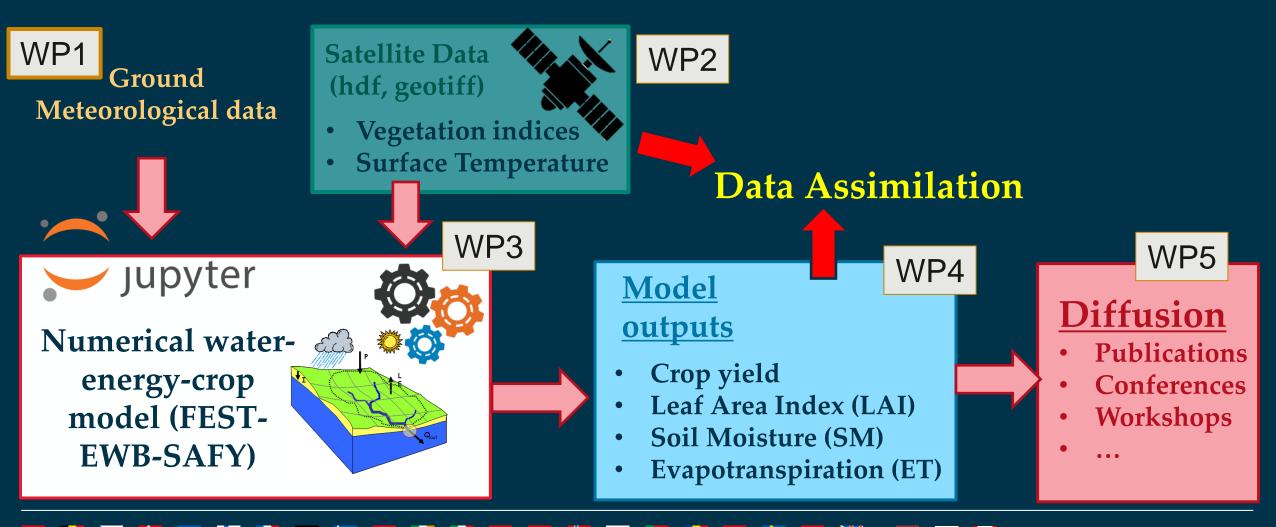




Research Outline



The project will develop an EO-service supporting precision agriculture for farmers and farms associations, tackling the issues of managing water scarcity and safeguarding food security in Africa.



Project Team



Project team members:

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