

The use of a seasonal forecasting tool integrated in a GIS-SWAP system to improve irrigation management in an irrigation community

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in cooperation with the ECMWF developers of seasonal forecasts at Reading, UK.

AIM AND OBJECTIVES/TASKS

- To evaluate the Seasonal Climate Forecasting to estimate the irrigation needs in a typical irrigation community of Castilla y León (Spain)
- To make a sensitivity analysis of SWAP, as well as model calibration and validation in the pilot project zone, evaluating the needed accuracy of the model' inputs
- Integrate some important information for irrigated crops (soil parameters, irrigation systems, phenological data and others) in a Geographic Information System (GIS).
- Develop an integrated GIS-SWAP system for modelling the agricultural crops at the area of the project (i.e. maize, potato, sugar beet).
- Modelling the water flow in the soil with SWAP to improve the irrigation efficiency.

(EXPECTED) OUTPUTS

- A methodology of Seasonal weather forecasting to be used by a Irrigation Advisory Service
- A SWAP- GIS Interface
- Recommendations on how to improve the irrigation water management and irrigation efficiency using the available climate and crop water-use simulation tools.