Earth Observation for irrigation and river basin management in an operational way: the SPIDER system

ALFONSO CALERA1, ANNA OSANN, GUIDO D’URSO2, CHRISTOPHER NEALE3 & JUAN MANUEL MORENO1

with contributions from other PLEIADeS partners

Abstract Water for food production represents by far the largest share among all water uses and demands. Water management is facing increasing challenges worldwide. Earth Observation (EO)-assisted tools could be suitable in helping better management, because the comprehensive overview provided by EO allows continuous monitoring at the required spatial and temporal scales. But, the products and services derived from EO need to reach different users in a timely and useful way. The user-driven PLEIADES project is an attempt to create operational EO-assisted tools. The technical core of this project is the System of Participatory Information, Decision support, and Expert knowledge for irrigation and River basin water management (SPIDER), based on GIS web technology. It assimilates EO time series imagery and other ancillary information to provide useful information to a wide range of stakeholders at their required space-time resolution in a non-academic, non-technical, easy-to-use and intuitive form that encourages participation.

Key words Earth Observation; GIS web; water irrigation management