Added Value of Networking

Success Story

Success Story title   *National Information System for Water Management in Agriculture (SIGRIAN)*

Theme   *1.Network communications; 2.Knowledge exchange;*

NRN   *Italy*   **Coordinator**   *Water resource Thematic Group*

Partners   *Regions, ANBI, Local agencies for water management*

Period   *From July 2007 to December 2015*   **Resources**   *1,700,000 Euro*

Geo-location   *National*

Beneficiaries   *Regions, Local agencies for water management, Authority of river basin districts, Ministry of Agriculture, ANBI*

Background

Irrigation is fundamental for Italian agriculture, assuring a greater productivity and production elasticity, and irrigation will be more and more important considering the scenarios of climate change. Agriculture needs to contribute to environmental improvement of water resources and several actions can be pursued to save water. From this point of view, it will be necessary to coordinate policies (CAP, energy policies) and further knowledge and integrate research to the support decision making level. SIGRIAN is a geographic information system (GIS) for territorial analysis, planning and programming in the irrigation sector at national and regional level. In particular, it is a decision support system (DSS) that can be used to support short and middle-term actions (water crisis management) such as long-term actions (policies and investments programming).

Main activities

The role of systems like SIGRIAN is more important as DSS, giving the possibility to produce analysis on the state and the evolution of water use for agriculture associated with other kind of information with a research integrated approach.
For instance, within several researches, INEA is already analyzing SIGRIAN data in association to:

- *Other water abstractions and consumptions at a river basin level (human, energy, tourism, industries), when available;*
- *Climate characteristics and meteorological conditions;*
- *Hydrological conditions of water bodies;*
- *Areas under prescriptions (natural parks, protected areas, wetlands, site of community importance, nitrate vulnerable zones, etc.);*
- *Irrigation water pricing simulation models;*
- *Economic and productive data on the Italian farms (Farm Accountancy Data Network); and,*
- *Investments programmed and financed for irrigation; the implementation of the GIS with the technical projects can be a useful support in the analysis of their impact on the agricultural areas in terms of water availabilities, irrigated productions and environmental effects.*

Main results/benefits

- ➢ *Support to river basin management plan (monitoring phase)*
- ➢ *Regional reports of water management in agriculture, irrigation and productivity*
- ➢ *Adding informations from Farm Accountancy Data Network*

Contribution of the NSU

The NSU is responsible for making synergies and for the coordination of the activities

Contribution of the partners

The others involved, provide data and information aimed in order to share the implementation of SIGRIAN

Success factors

➢ *the system is developed with an eye carefully devoted to the optimising existing data and information, by avoiding duplication of efforts and in the attempt to make the most out of already existing information;*
➢ *share the information of the Italian irrigation sector, allowing a strong coordination of policies and a deeper knowledge and integrated research to supporting policy decision making; and,*
➢ *publish a SIGRIAN web-gis to share information for the Regions, Local agencies for water management, the Authority of river basin districts and the Ministry of Agriculture*

Additional information

www.inea.it
www.sigrian.inea.it (available soon)