European water directive evaluation and decision support system to improve irrigation management: RISP-IDRIC Project

Rinaldi¹, M., Ruggieri¹, S., Marcucci², C., Loreti², F.

¹ C.R.A.- S.C.A. - Bari (Italy); michele.rinaldi@entecra.it
² Consorzio della Bonificazione Umbra (C.B.U.) - Spoleto (Italy)

The preservation of water resources is becoming a major environmental priority, because water is an essential mean of production for agriculture and a basic element for the survival of all human activities. The recent reform of the Common Agriculture Policy (CAP) is oriented towards an ecologically-sound agriculture and then to a reasonable use of the production factors (technical features, including water), without waste, without releases of pollutants in water, soil and products. In this context, the Water Directive n. 60/2000 introduces a new philosophy in the water resources management, such as the principle “polluter pays”, the principle of full cost and volumetric pricing. Implementation of the directive could have important effects on the agricultural sector and management.

The “Consorzio della Bonificazione Umbra”, authorities that is located in Spoleto (Umbria-Italy), it is responsible for soil reclamation and conservation, protection of land and the environment, with special reference to water resources for the improvement and transformation of production systems. The “Consorzio” performs the functions and duties assigned by the Act and the activities that are still necessary for the achievement of its institutional tasks. The “Consorzio” comprises 128.000 hectares with a total irrigated area of 4.181 hectares and 64.700 farms. The costs for the implementation, maintenance and operation of land reclamation projects, as well as those relating to the other purposes of the “Consorzio” are allocated on the basis of specific plan standings.

The RISP-IDRIC project has been funded by Italian Ministry of Agricultural, Food and Forestry Policies (2007-2010) and in cooperation with CRA-SCA of Bari. It is a research project and will achieve two main goals:

? To find the most efficient solutions (and less expensive) to meet the targets set by European Water Directive n. 60/2000;
? To give a methodological support for application of national and regional water directives, testing the impact of different scenarios of contributory systems, consortia remediation and, consequently, agricultural system.
? To develop an analysis method to validate operational criteria for quantification of the cost (full) of water in agriculture.
? To assess the effects of changes in the contributory system on the agricultural sector and consortia.
? To analyze all the possible strategies of sustainable application of the directive and drafting the final report.
? To develop a web irrigation decision system to improve the efficiency of irrigation technology, streamline procedures for irrigation and optimization of the use of water resources, providing specific guidance to farmers for irrigation supply (time and amount) offering them a tool that exploits advantage of new technologies.