

An initiative towards water saving and sustainable demand irrigation management in the Mediterranean

by
A. Hamdy

In the majority of developing countries of the Mediterranean, the legacy of past and current practices that treat water as unlimited resource is leading to fast depletion of this valuable resource on which human life, food security and ecosystems survival depend.

In the most arid and semi-arid countries of the region, agriculture is receiving the lion share of available water resources with more than 80%.

The uncontrolled use of water and its mismanagement resulted in huge water losses exceeding 50% and a very poor on-farm water use efficiency generally below 40%. This bears evidence that the water crisis many of the developing countries in the region are now facing is mainly a crisis of water governance, particularly in the agricultural sector. As a result, we fail to find the appropriate linkages between water security, food security and environment sustainability, this being the desired final goals the Mediterranean countries are working hard to achieve.

Indeed, faced with most of the water problems in many countries of the region - such as water conflicts among different water users, the notable imbalance between the limited water supply and the steadily increasing water demand, as well as the inefficient water allocation - the appropriate way towards sustainable solutions lies in how to use and manage the water resources in the irrigation sector. The solution to the problems should be searched not by increasing water supply but through demand water management and in the agricultural sector in particular, i.e. through water saving and better use of already existing resources. This requires considerable efforts in the modernization of irrigation systems and in the development of sustainable management activities which are compatible with the technical, financial and socio-economic capabilities of the irrigation sector in the Mediterranean environment.

Aware of this, in the last 10 years the Mediterranean Agronomic Institute of Bari (MAIB) has focused its activities on the development of irrigated agriculture through raising water use efficiency, improving crop water productivity in this field and thereby increasing the water saving potentiality in the irrigation sector. An information research network was established where several research projects and programmes were realized in cooperation with several scientific institutions, from both developed and developing countries in the region, involved in water resources

management and focused on water saving techniques and reduction of water losses in the irrigation sector.

The gathered information, the research findings and the know-how obtained through more than 10-year networking activities resulted in an ample regional action programme on water resources management (RAP – WRM), coordinated by CIHEAM-Bari Institute within the framework of the EU DGI activities. The programme started in 1998 and lasted for 5 years. It was realized in tight cooperation with many scientific institutions and involved many irrigation experts and researchers from most countries of the Mediterranean.

This work aims at synthesizing the main considerations and objectives of the RAP – WRM programme: water saving options, recommended technical and economic tools to be applied in an integrated approach, building the new technologies in water saving among the stakeholders and particularly the water users and, above all, carefully evaluating the impact of this complex and intensive exercise on the institutional capacity building, the human resources development and stakeholders involvement.