

## Wasamed Project

**Nicola Lamaddalena**

*Istituto Agronomico Mediterraneo di Bari*

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### Introduction to WASAMED Project

WASAMED (*W*ater *S*aving in *M*EDiterranean agriculture) is a Thematic Network funded by the European Commission (INCO-MED Programme). It involves 42 partners from decision-policy making Institutions, Universities and End-Users, of 16 countries: Algeria, Cyprus, Egypt, Germany, Greece, Italy, Jordan, Lebanon, Malta, Morocco, Palestine, Portugal, Spain, Syria, Tunisia, Turkey.

The main objective of WASAMED is to contribute to improved management of limited water resources and sustainable development in the Mediterranean Region through the establishment of a platform for effective Mediterranean dialogue on water saving in agriculture. Strengthening participatory approach, improving communication and networking and integrating the different disciplines and dimensions involved in the water management are the key element of WASAMED approach.

The network activities started in January 2003. Five workshops and one International Conference have been carried out respectively in Sanliurfa, Turkey (Participatory Water Saving Management and Water Cultural Heritage, 2003), Hammamet, Tunisia (Irrigation System Performance, 2004), Cairo, Egypt (Unconventional Water Use, 2004), Amman, Jordan (Water Use Efficiency and Water Productivity, 2005), Malta (Integration of Water Saving Options and Policies, 2006) and Valenzano, Italy (Water Saving in Mediterranean Conference and Future Research Needs).

Each workshop has included a dense agenda consisting of key contributions, country reviews from well reputed scientists and experts. Contributions and country reviews have inspired discussion in plenary sessions and deliberation of common goals and concerns in working groups. At each workshop members have been split in working groups respectively addressing socio-economic, environmental, institutional-governance and technical aspects. The working group deliberation has been very rich of outputs resulting, at each theme addressed by the Workshops, in goals and indicators relevant to social, economic, environmental and governance dimensions.

Main results of the project are:

- Improved regional co-ordination of present and future actions in water saving;
- A strong visibility to the work done within the Region (capitalize the existing knowledge);
- A strengthened communication among relevant researchers, decision and policy makers, and end-users;
- Facilitated access of different stakeholders to an easy-to-use knowledge-base;
- Identification and search of consensus on sustainability goals and indicators of management and assessment of different water saving options;
- The building of a common frame of priorities and goals for research and development and the elaboration of a shared framework to assist regional planning and EU-funding in water resources management for the Mediterranean Region;
- Development of new water saving research projects and actions that meet with the needs and concerns arising from the different Mediterranean contexts.

### **The International Conference in Bari (Italy), 14-17 February 2007**

At the end of the WASAMED project, a final international conference was organized at the CIHEAM-IAM BARI institute. The Conference has conveyed more than 150 participants coming from research institutions, governmental institutions, water user associations, private sector and international organisations and covering all the Euro-Mediterranean countries. Several scientists from Central and North Europe were also present in the event.

More than 100 scientific written contributions have been submitted to the Conference, this resulting in three volumes of Conference proceedings edited in *Options Méditerranéennes*. The agenda of the Conference has been designed to host different sessions and events to facilitate dialogue and build a shared knowledge among participants as well as to facilitate each individual to freely express own concerns and goals regarding the theme of water saving:

- five parallel scientific thematic sessions for oral presentations and discussion;
- scientific poster session;
- an open room, namely *Agora'*, for collecting inputs and concerns from individual participants regarding water saving management and sustainability. Two experts have facilitated the participants to self-extract or speak-out freely their concerns, targets or objectives in relation to main themes of water saving. Each person entering in the *Agora'* room was free to use one or more ways of communication. Four methods of communication were in place: i) the more traditional Metaplan; ii) the method of dilemma board; iii) sketching cartoons; iv) speaking to a video camera. The *Agora'* was accessed by more than 100 people;
- an expert panel aiming at analysing, discussing the outcome of the above sessions and preparing a the frame of targets and objectives;
- a closing plenary session to discuss and agree on expert panel's outcomes.

The Conference has highlighted the importance of addressing properly the functional relationships between water saving and sustainability. Water saving in Mediterranean agriculture, particularly in arid and semi-arid areas, is at the base of water management. Thus, pursuing and improving water saving management should constitute a valuable and indisputable contribution to sustainable development and to fulfil the main criteria of competitiveness, limitation of throughputs and throughout into environment, governance, social cohesion and their inter-linkages.

### **Priorities, goals and targets for future research agenda on water saving in the Mediterranean**

Discussing and proposing in plenary sessions and the Agora' identified three priority options of water saving:

- water use efficiency and water productivity: a "biological" soil-crop-plant related option;
- irrigation system performance: an "engineering – hydraulic" infrastructure related option;
- non-conventional waters: a joint "technical – engineering – institutional – social " driven option.

The perspective of water saving in connection with the still week participation of users and stakeholders, low-cost technology, equity and qualitative enrichment of natural water bodies was strongly supported and indicate a clear ties among all participants. Particular attention was given to technological means for irrigation system modernisation, decision support systems, devices for monitoring, control and quantification of water volumes, and improving irrigation scheduling.

In relation to the environmental dimension the conference discussion has identified the importance of improving holistic methodologies and indicators that allow the quantification of saved agricultural water volumes and understanding of scaling effects on the real replenishment and quality enrichment of natural water bodies, from farm saving level to collective and catchment saving level. In the same time a better understanding of relationships between water saving and pollutions of water and soil needs to be achieved, particularly in relation to i) fertilisation and long-term saving in water scarcity condition, ii) soil salinity and long-term use of unconventional waters.

In regard to the economic dimension we can deduce the need of establishing a right balance between benefits of low-cost technologies of water saving, total material cost and water tariff, accounting also for the effects of global change. For what the social dimension concerns, the technology and innovation in water saving must serve farm community and contribute to an improved equity of access to water and to technology self. Any water saving development should aim at employment and reducing users conflicts, as these goals are at the based of social cohesion.

On the side of the institutional dimension it is clear the need of standardisation and regionalisation of a multi-level participatory approaches in water saving management, assessment, monitoring and preventive planning (preparing to manage external system perturbation), accounting also for the inclusion and effective involvement of women and marginal communities in the co-decision process.

In conclusions, the research agenda may provide for the establishment of national or regional research themes interlinked to sustainability and sustainable water management in limited-water countries. Goals and targets presented here correspond to innovative trends in future research, taking into account that prioritisation vary from country to country. Nevertheless, the emerged issues and goals for research assume new directions towards an holistic approach aimed at solving problems of technical, environmental, social, economic and institutional nature.

The research agenda show that sustainability must be considered in its full significance in the development of scientific, engineering and technological aspects of water saving. It also provides evidence that environmental, social and economic approaches should be integrated with the new technologies and methodologies required for a full sustainable management of water saving.

#### **Information**

*The final document vision of WASAMED project will be disseminated in the next weeks.*

*For any further information about the project, visit the site: <http://wasamed.iamb.it/>*