



Preface

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Water for all with quality and quantity: it is the concern of all!

In a situation of increasing scarcity of water supply and problems related to climate change, many international organizations such as the UN, UNESCO, Plan Blue, the World Water Council, Agenda 21 and UNEP are deeply concerned about establishing sustainable management policies and governance rules on water resources to ensure sustainability of this vital resource. An optimal economy can be achieved only by ensuring a rational use of water essential for meeting the demand of water for industrial, agricultural and domestic uses of an increasing population.

It is now widely recognized that the implementation of a sustainable development requires putting into the equation all of the social, economic and environmental concerns considering water as a fundamental and limited element. Climate change brings extra water stress since the issues raised concerning floods, droughts, rising sea levels, etc. in addition to all debates on climate change are in fact deep concerns about water and its natural cycle.

Water, a natural resource, which is becoming scarcer, is part of any nation's heritage as well as the world's common concern. Its protection, valorization and the development of the resources to be used in the context of natural balances are therefore of general interest both nationally and internationally. We must consider water as a social and economic resource to which access is the right of every individual.

Water is essential to humans in particular and to life in general. It has always played an important role in the history of humanity and the development of civilization. It is the source of life, but also may become a source of conflict in many parts of the world. In the twenty-first century, water has become a major issue, and only the nations that have

managed to preserve their moisture capital will be able to survive. Countries around the Mediterranean Sea are under semi-arid conditions and are expected to be increasingly faced with water shortages as a result of increasing agriculture, industry and populations, which are growing steadily. In this context, water has a special socio-economic, environmental and geopolitical value. In fact, technical and economic solutions require solidarity between regions and states.

Sustainable management of water must also, first of all, take into account some security questions for which agreements and conventions are fundamental requirements. A sustainable approach to the solution of water problems superimposes some innovative and global solutions that can be achieved only by interdisciplinary teams jointly working in networks.

The growing importance of water scarcity worldwide requires strengthened cooperation and unification of thought for a sustainable, efficient and equitable management of scarce water resources, whether locally or internationally. The effectiveness of this sustainable management and at the same time the focus on the given value to water quality for health as well as issues of access to clean water for a sustainable environment show the magnitude of the task.

During three days of an intensive scientific and technical programme, the WATMED6 conference was rich, diverse and multi- and interdisciplinary, led by high-level speakers in multiple sessions. It was an opportunity for discussion and exchange of views between academic communities, researchers, industrialists, politicians, managers, elected officials and policy-makers on current and future subjects concerning to the following topics:

- Integrated management of the water resources and performance of the levies.
- The effect of climate change and anthropogenic disturbances on water resources.
- Operation of Mediterranean aquatic systems.
- Urban and domestic wastewater including wastewater treatment and reuse.
- Policies, regulations and application of environmentally related disposals.

The WATMED6 international Scientific Committee has selected the best original and innovative communications to be considered for publication in the *Desalination and Water Treatment (DWT)* journal. A second review process was performed by the journal reviewers in order to select the best original papers. As a first founding member of WATMED in 2001, I am proud and honoured to write the preface for this special issue, which is dedicated to *Desalination and Water Treatment*, an internationally established journal.

WATMED has come a long way from a common idea in 2001 as part of a Mediterranean action group on water during my chair in the Mediterranean Network of Engineering Schools and Universities (RMEI).

Since 2001, the founding members have organized six WATMED in Tunisia (2002), Morocco (2005), Lebanon (2006), Algeria (2008), France (2010) and Tunisia (2012). The next will be held in 2014 in Morocco and it is hoped that it will continue the trip

towards the other Mediterranean countries (Italy, Spain, Jordan, etc.). A real network of experts has been created with scientific, technical and also cultural exchanges.

Finally, The author thanks all the different WATMED presidents and all the researchers, teachers and industrialists, who participated in all the WATMED conferences. Thanks also to all the Scientific Committee members, the national and international organizing committees, the sponsors, and all those who have contributed in the success of this event.

I would also like to thank Prof Miriam Balaban, the editor-in-chief of the *Desalination and Water Treatment* journal, for all the efforts she made since the creation of this journal and for this special issue dedicated to WATMED.

I am sure that in the coming years, WATMED will grow even more not only in the Mediterranean region, but globally too, and this is basically due to your research results.

Congratulations to all and long life to WATMED

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