

FOREWORD

Water Quality, the Challenge of the Future

In November 2009, the International Centre for Water and Environment (CIAMA, in its Spanish acronym) of the Ministry of Environment of the Government of Aragon in Spain once again became the centre of the world for the analysis of experiences on the management of water resources worldwide with the 3rd International Meeting of Experts. The meeting brought together about 30 of the most recognized water-management scientists from all continents of the world to discuss a topic as exciting as it is necessary nowadays: “Management of water quality: challenges and expectations”. This meeting, the result of which appears in this issue, made it clear that future challenges regarding water availability around the world are not so much related to the quantity of water available, but to its quality.

Water is a vitally important resource linked to the future development of the world: society’s well-being depends completely on it being managed appropriately. We all know that without water there is no life.

We live in a society which, since the second half of the 20th century, has adopted a model of growth based on a notion of progress which often involves the unsustainable development of resources. This has led to great social inequality and considerable deterioration of the environment. We must be very clear that unlimited growth is not compatible with sustainable development.

Water management is one of the 21st century’s most critical challenges on a world scale, fulfilling an essential role in reducing poverty and promoting economic development. Water management is one of the objectives of this millennium: guaranteeing the sustainability of the environment and reducing by half the number of people with no access to improved drinking water. This is why integrated, sustainable and equitable management of water is absolutely essential.

I would like to highlight some aspects discussed during the meeting, and which Asit K. Biswas, President of the Third World Centre for Water Management and winner of the 2006 Stockholm Water Prize, explained in the closing session. One of them is that the characteristics of each hydrographical basin and each country around the world are different and, therefore, the instruments developed and implemented to improve water quality must consider the characteristics of each specific location if they are to have a positive impact. We thus face the challenge of developing the tools needed, and improving the means for the exchange of solutions and experiences in terms of water management.

On the other hand, I believe it is important to emphasize the fact that the different attempts made by the United Nations to achieve progress in terms of drinking water supply and its treatment around the world have, for the most part, been in vain. This makes it even

more necessary for us, as regions and states, to consider all the experiences gained from this and other similar meetings, and turn them into specific and relevant actions to disseminate solutions and generate a genuine impact on the ground. Water management is a global problem that can only be addressed from national standpoints and with solutions implemented at a local level.

As far as the challenge we have before us of improving the tools for exchange of experiences and solutions in water management is concerned, I can say that in Aragon we have used, and have exported in recent years, the innovative experiences implemented in the region to improve the quality of the waters. Addressing the comprehensive treatment of wastewater in a territory such as our Autonomous Region, which is extensive, geographically disperse and has complicated terrain, was a complex undertaking; it is, however, becoming a reality thanks to the major wastewater management plans implemented. These programmes have not only generated interest from numerous countries and regions, but have also been recognized by institutions such as the Organisation for Economic Co-operation and Development (OECD), which has disseminated them to country members.

From the moment I took on my responsibility as Minister of the Environment of the Government of Aragon in 2002, improving water quality has been more than a priority objective: it is my main goal. This is why we have implemented ambitious and complex global water-treatment plans, and developed innovative infrastructures for the proper management of animal solid waste as an attempt to reduce the contaminating load characterized by a large number of highly intensive pig-farming operations. In summary, there are hundreds of projects under way which, I can state with great satisfaction, have already become a reality and are bearing positive fruit in the quality of water of our rivers.

Our commitment has been translated into actions that have included not only the development of projects, but also raising awareness and disseminating information. From our modest position as a region in the world, in Aragon it has always been our objective to be a spokesman of the water needs of the different regions. Firstly, because water is a need which is intrinsic to this region, something we can legitimately claim leads to future development. And secondly, because we firmly believe that Zaragoza and Aragon should continue to be a forum for world debate on water and sustainable development, we continue with the scientific and intellectual legacy bequeathed by the Zaragoza International Exhibition of 2008.

This International Meeting of Experts, the first two sessions of which were held in 2006 (“Water Management Beyond the Year 2020”) and in 2007 (“30 Years from Mar del Plata: Achievements and Expectations”), represents a further effort by the Ministry of the Environment, through CIAMA, to perpetuate this legacy and continue to promote debates and stimulate the dissemination of best practices in the area of water. It is also an effort to continue working with national and international institutions and associations around the world.

I would like to take this opportunity to offer my sincere thanks for the commitment and work of the experts and organizations who have made it possible for us to move forward in our challenge: to the experts attending this and all the other events organized through CIAMA for their participation and for the valuable ideas and experiences with which they have contributed; to the International Water Resources Association (IWRA) and the Third World Centre for Water Management in Mexico as organizers of the event and examples of commitment and professionalism in disseminating knowledge and fighting to reduce

inequalities around the world; to the staff and experts at the Ministry of the Environment; and last, but not least, special thanks to Asit K. Biswas and Cecilia Tortajada for their knowledge, wisdom and contributions to the Aragon government's International Centre for Water and Environment, and for their work, which has resulted in the scientific achievements of CIAMA.

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