

Editorial

No sane person will argue with the fact that water is an essential requirement for human survival and ecosystem conservation. As human populations and activities have increased, they have put considerable pressure on the existing water resources, in terms of both their quantities and qualities. The most challenging issue facing the water professionals and decision makers at present is how the available water resources can be used efficiently and equitably for the welfare of humankind and ecosystems.

Historically, the traditional response to meet the increasing water demand of a region has been to rely almost exclusively on supply-side solutions. In other words, when an additional quantity of water was needed, the solution was to increase the available supply of water through new development projects. Since water is generally heavily subsidized by governments (especially for irrigation), water requirements have increased steadily. This has created a vicious circle. Water is heavily subsidized, and so requirements increase regularly. More new water development projects are then constructed to meet the higher subsidized water requirements, which further increase water requirements, thus necessitating even more new water projects at higher and higher costs.

The above historical water management paradigm is no longer a sustainable solution. Water management in the 21st century must consider a concurrent two-prong approach of supply and demand management. If water is properly priced, a significant percentage of the existing and future requirements will disappear. Thus, the issue is no longer how to continually increase the availability of water to meet the higher and higher water requirements, but rather how demand can also be managed simultaneously in an equitable and socially acceptable manner through the use of appropriate economic instruments and conservation practices.

In 2001, the Spanish Parliament approved an Act which authorized the National Hydrological Plan. A major component of this plan is to transfer 1050 hm³ water from the Ebro River over 900 km to the Levante basins in the coastal areas of southern Spain. The plan has created considerable controversy between its proponents and opponents in Spain for a variety of reasons.

In 2002, the Government of Aragon invited leading international water experts to objectively assess the need, desirability and sustainability of the plan. These international experts evaluated the plan from technical, economic, social and environmental perspectives. All the international experts evaluated the plan independently. In other words, there was no consultation between them. Each submitted their report to the Government of Aragon. When all the reports were received, the conclusion was unanimous. The plan will not be necessary if demand management practices are efficiently formulated and implemented, and because alternative sources of water will be available at a much lower cost compared to the transferred costs. The environment and social costs of the plan

will also be very significant. The findings of these experts were presented to the European Union in March 2003.

By any account, the plan, if implemented, will be a mega infrastructure development project. Thus, it is imperative that the plan's benefits, costs and desirability are assessed comprehensively, objectively and impartially. The present issue of the journal includes selected papers from international and Spanish experts on the plan. We are confident that the papers contained in this Special Issue will go a long way to stimulating an informative discussion on the plan, both within and outside Spain.

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