



Conference Report

Roundtable Consultation on Irrigation

Rabat, Morocco, 26-28 October 1998

The International Commission on Irrigation and Drainage (ICID) and its National Committee for Morocco (ANAFID) organised a Roundtable Consultation on Irrigation at Hotel Meridien Tour Hassan, Rabat Morocco, 26-28 October, 1998. The main objective of the Roundtable was to start a process of consultation and objective review of the role of irrigation in improving the standard of living of a large number of people, especially in the developing countries in the 21st century.

The two main organisers of the Roundtable, Dr. Aly Shady, President of ICID, and Dr. Mohamed Ait Kadi, President of ANAFID, assembled a distinguished group of international experts from all over the world to review in depth the present and future global economic, social and environmental trends, and their influence on irrigated agriculture policies and actions in the next century. Most of the major irrigation and water-related international institutions were represented at this meeting.

The global irrigation community has become increasingly concerned in recent years due to the steadily declining trend in the availability of international investment funds for developing new irrigation projects. Furthermore, as the world food demands continue to increase due to increasing population and affluence, more and more food would have to be produced to meet the escalating demands. This in turn would require more irrigated area than what is available at present. The Round-table identified and analysed the current and foreseeable irrigation-related trends. Discussions focused around four main topics: inter-sectoral and regional competition for water, technology and project management, social and environmental issues, and effects of globalisation on irrigation development and management.

It was generally felt that the economic value of water should not be restricted only to the concept of water pricing. It should be viewed from a broader perspective, which should consider its value and relevance from an overall economic, social and environmental perspective. A good example of this approach is the long-term process of investment in water development in the southern part of Turkey (Southeast Anatolia or GAP Project), with the main objective of improving the life-style of approximately 10% of the population of the country who live in that region. The project not only considers the traditional engineering aspects, but also social, economic and environmental dimensions of this macro development. Due to this holistic and integrated approach to regional development, one of whose main component is irrigation, the life-styles of the population living in the region are improving steadily. This is an excellent example of how properly planned irrigation development can contribute to poverty alleviation on a significant scale.

Technological advances have been significant in all areas in recent years, and irrigation is no exception. In the case of irrigation, biotechnology could contribute to higher yields of crops per unit area with less water requirements. For example, new varieties of rice are now being planted in Egypt, which has a 90-day growing period, compared to 120 days earlier. Genetic improvements are also likely to contribute

to significant reduction in losses during harvest and post-harvest periods. Together, these technological developments should result in more food production per unit area with less water.

It was noted that irrigation may not always be economically viable due to low rates of return, especially in poor communities. This need to be carefully analysed since the option of not supporting small, poor communities could have negative cumulative impacts at the regional and national levels, especially in terms of their socio-political stability.

The new social and environmental requirements for radical changes in water and land management practices were also discussed. In spite of the unquestionable social and economic benefits which could accrue from properly planned and managed irrigation projects, poorly planned and managed projects have some times resulted in reduced economic benefits at significant social and environmental costs. This has turned many environmental and citizen groups against irrigated agriculture. Media is often questioning the benefits of large-scale irrigation development projects in many parts of the world.

It was agreed that not all the reviews and actions of the environmental groups are erroneous. There are real and powerful reasons to improve the management and the efficiency of irrigation schemes, irrespective of the pressures from the environmental lobbies. Changes in land uses due to irrigation have some times resulted in extensive salinisation, deforestation, soil erosion, and waterlogging. Rapid expansion of irrigated areas, without changes in the present management practices could contribute to more environmental degradation, as well as have negative impacts on the sustainability of the projects themselves, unless appropriate countermeasures are taken.

Among the important current global trends include the involvement of the private sector in managing and developing irrigation projects, decentralisation of often heavily centralised irrigation institutions, stakeholders participation and water pricing. However, it was noted that there is no magic formula for planning and implementing all irrigation projects. While decentralisation would certainly strengthen institutions at local, regional and national levels and would promote the participation of the different stakeholders in countries having strong centralised institutions, it could prove to be disastrous, at least in the near- to medium-terms, and lead to further weaknesses in countries having no strong local institutions, and/or requisite qualified staff and investment funds. Development of appropriate institutions at the local and regional levels, and capacity building at all levels are essential preconditions for any successful decentralisation.

The importance of properly focused research and better dissemination of currently available information were strongly supported. For example, there is still the general but erroneous belief that there is one-to-one relationship between irrigation and spread of diseases like schistosomiasis and malaria. Current research in many parts of the world indicates that the issues are significantly more complex than what is generally believed at present. Equally, irrigation can significantly improve the overall health of the population of the area through higher food production, crop diversification, and employment generation. These aspects have not received adequate attention thus far. A detailed and objective analysis of the impacts of irrigation on human health has yet to be undertaken.

The participants felt that objective analyses of irrigation projects in terms of benefits and costs (economic, social and environmental) need to be carried out before many of the above issues can be satisfactorily resolved.

There is no doubt that the global food requirements would increase steadily in the coming decades. It is thus essential to realise that the world needs more irrigated areas than what it has at present if these

future food demands have to be met. However, simultaneously, increased emphasis needs to be placed to ensure that all irrigation projects are delivering the benefits they were expected to. It would not be an easy task to meet all these requirements simultaneously, but it is an important challenge, which the irrigation professionals must overcome successfully during the early part of the 21st century. The Round-table also discussed the processes to develop a sectoral vision of water, life and environment in the 21st century for the World Water Council, and also processes and content of the “food and water window” for funding under the GWP.

Cecilia Tortajada
Third World Centre for Water Management
Mexico City, Mexico