

Conference Reports

Second Asian Conference on Water and Wastewater Management, Teheran, Iran, 8–10 May 2001.

In his opening statement, President Mohammed Khatami of Iran pointed out that over the long term, peace and security of the Middle Eastern countries, where an already serious water crisis exists, will be influenced by the mechanisms to solve the water problems of the region. The performances of the governments in solving the water problems will determine the levels of economic and social development of the region. The President indicated that despite the serious attempts made in the past, depletion and destruction of water resources are continuing unabated in many places. It is not enough to raise public awareness of the water crisis: actions must be taken to confront the existing and future challenges so that the welfare and security of the future generations could be assured. The President urged the development of suitable mechanisms for enhanced regional cooperation to ensure greater transfer of technology, experience, and knowledge to solve the multifaceted water problems.

In an address to the Conference, the Minister of Energy, Mr. Habibollah Bitaraf, pointed out the Iranian Constitution stipulates public ownership of water resources. The ministry of Energy is responsible for the provision, development, and protection of water resources, as well as for urban water supply and wastewater management systems. The Ministry of Agriculture and Jihad are responsible for rural water supply and wastewater disposal.

The following are the basic principles the Iranian Government:

- Construction of necessary infrastructures to ensure availability of good quality water and proper wastewater disposal services for each citizen of the country;
- Transfer of management to NGOs, and encourage more public participation; and
- Privatization of water supply and wastewater services to create suitable environment for fair competition, increased investments, and better quality of services.

Minister Bitaraf also promoted the need for demand management, which has not received adequate attention in the past.

In his key-note address, Eng. G.R. Manoochchri, Deputy Minister of Energy for Urban Water and Wastewater Affairs, stated that water has always been consid-

ered to be very important in Iran. For example, Herodotus noted that “the Persians do not allow anyone to pollute water, and they respect it highly.” However, as the population of the Middle East has doubled over the past 30 years, and it is estimated to increase from the present 270 million to 500 million over the next 30 years, the region’s limited water resources are under unprecedented threat. The negative water balance of the region is estimated at 17,000 Mm³ per year, of which Iran alone contributes to 5,000 Mm³. Desalination has been practiced in Iran since the 1950s. It is estimated that desalination capacity will increase from 2,300 Mm³ in 1996 to over 3,000 Mm³ by 2020.

Mr. Manoochchri noted that investments in the wastewater sector have been inadequate in the past, mainly because it received little attention. Furthermore, existing installations are not properly maintained and operated. These two factors have seriously affected water quality. He emphasized the importance of regional cooperation to improve the existing water management practices significantly.

In a second key-note address, Professor Asit K. Biswas said that water management practices are likely to change more during the next 20 years compared to the past 2000 years. Unlike the past, many of these changes will be driven by factors outside the control of water profession, like globalization, technological advances in areas like biotechnology and desalination, and information and communication revolution. These are issues to which the water profession has given scant attention in the past.

Most of the important advances in water management practices are now occurring in the field (in contrast to academia in the past), and in developing countries like Brazil, China, India, and Turkey. This is not surprising since major water development projects have generally not been constructed during the past two decades in the United States or Western Europe, but in Brazil, China, India, Iran, and Turkey. However, these advances in developing countries are generally not well-known, many times even within the country itself. Thus, Professor Biswas recommended making the Teheran Conference the main venue for technology, knowledge, and experience transfer between developing countries on a regular basis.

The Conference considered seven main topics for discussion on water crisis: effective factors and consequences, trends in water sector structural and managerial changes, demand management, financial resources and water sector economy, technological developments in

water and wastewater industry, health and environment, and regional and international cooperation. The Conference thus covered a wide ground, with important contributions by the foreign and the Iranian participants. It was very well-organized, and the hospitality of the organizers was simply overwhelming.

At the end of the Conference, the participants unanimously approved the following Declaration.

Teheran Declaration

We, the participants of the 2nd Asian Conference on Water and Wastewater Management, held in Teheran, Islamic Republic of Iran, during 8–10 May, comprising of 1,600 individuals from 39 different countries, firmly believe that freshwater is indispensable for human survival and is an essential requirement for sustainable development.

We further believe that appropriate quantity and quality of water must be available at reasonable costs to satisfy various human needs and activities, and for ecosystem conservation. Accordingly, water resources of each nation must be managed efficiently, equitably, and sustainably for all human uses and environmental needs.

We stress that the foundation of rational water and wastewater management should be based on the conclusions and recommendations of the United Nation Water Conference held at Mar del Plata, Agenda 21 of the Earth Summit of Rio de Janeiro, and the report of the World Commission on Water. However, progress in implementing these recommendations has been painfully slow so far, and thus must be significantly accelerated.

We are also concerned with the deterioration of water quality, continuing depletion of groundwater, and the lack of adequate investments which is making rational management of water quantity and quality difficult, especially in developing countries.

We believe firmly that the efficient management and the rational development of water resources are important means to an end: the end being poverty alleviation, employment generation, sustainable regional development and environmental conservation. For the Asian countries, storage works are essential to account for high variations in intra-annual and inter-annual precipitations. Properly planned and managed storage works will ensure reliable water availability for all purposes on a regular basis. These objectives can only be achieved by forming functional partnerships between government agencies, other public sector institutions, private sector, NGOs, and people within overall policy and regulatory guidelines formulated by the governments.

Many important issues were discussed at the Conference. The participants wish to stress the following:

- At the national level, the budget available for water and wastewater management needs to be increased significantly so that the needs of the present and future generations can be met successfully. At the household level, people must be made aware that water is not a free commodity, and they should be prepared to pay more for water and wastewater services. In this connection, the needs of the poor should be properly addressed, with appropriately targeted subsidies.
- For each river basin, long term water management plans should be prepared, with due consideration of integrated water management principles, future demands for all purposes, including ecosystem conservation, and sustainability of water resources in terms of quantity and quality.
- Developing countries are becoming increasingly urbanized. For all urban centers of more than 200,000, long-term development plans should be formulated for the provision of good quality drinking water and collection, treatment and disposal of wastewater and urban runoff, with special emphasis on protecting the quality of groundwater and surface water within and around them.
- The efficiency of management of all water resources systems must be significantly increased. For municipal water supply systems, priority should be given to reduce the current losses due to leakages and for unaccounted use. Equally, losses from the irrigation systems should be reduced.
- The present capacities of public and private sector institutions; industries; research, development, and training institutions; and NGOs must be significantly improved.
- Emphasis must be given to capacity building and institutional strengthening, with special consideration of the needs for the future.
- All activities related to the water sector, ranging from policy making to institutional development, financial mobilization and capacity building, both within and around the sector, must be managed systematically and holistically within an overall approach of project management.

Establishment of a regional center on urban water management in Teheran is desirable. Such a center should give priority to the solution of regional water and wastewater management problems and should be established as soon as possible.

We further believe that the transfer of knowledge, experience, and technology between developing countries is absolutely critical so that we can learn from each other as how best to develop and manage our water resources in a cost-effective and sustainable manner. However, no mechanism currently exists where the latest advances and experiences from various developing countries could be reported, reviewed, and assessed on a regular basis. The First and the Second Asian Conferences on Water and Wastewater Management have played important roles in facilitating “South-South knowledge transfer.”

The participants thus respectfully request that the Iranian Ministry of Energy consider the possibility of making the Teheran Conference on Water and Wastewater Management a regular event, which could be organized every second year at specific time. The Iranian Association of Water and Wastewater Experts (IAWWE) could be given the overall responsibility for the coordination of the organisation of these Conferences. The major international water associations and institutions could be requested to co-sponsor these Conferences, and also to provide appropriate funding support. An International Scientific Program Committee could be formulated under the chairmanship

of Eng. G.R. Manoochehri to formulate a long-term strategy to ensure the success of the proposed conferences, and also to initiate the process to organise the next.

The participants wish to express their sincere appreciation to the Ministry of Energy, Government of the Islamic Republic of Iran, and H.E. G.R. Manoochehri for organizing an outstandingly successful conference.

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