

Conference Reports

International Conference on Land and Water Resources Management in the Mediterranean Region

Mai-Bari, Italy 4–8 September 1994

An International Conference on Land and Water Resources Management in the Mediterranean Region was held in Bari (Italy) during the period 4–8 September 1994 and was organized by the CIHEAM-Mediterranean Agronomic Institute of Bari in cooperation with IWRA and Water Research Center of Cairo, Egypt. The Conference attracted the attention of more than 250 participants from 50 countries and international and non-governmental organizations. Some 115 papers were presented in topics related to:

- water resources management in the Mediterranean region;
- irrigation techniques and management;
- salinity and saline irrigation practices and management;
- integrated land and water resources management;
- water harvesting and soil conservation;
- environmental aspects of water and land resources;
- waste water reuse;
- capacity building and farmers' participation.

The Conference came up with several recommendations among which are the following:

- (1) Integrated land and water planning and management requires extensive re-evaluation of academic programmes and education of transfer agents or extension advisers who truly understand the holistic approaches to the long-term sustainable use of the land and water.
- (2) There is a need to develop a global Mediterranean strategy for sustainable development, protection and use of land and water resources.
- (3) NGOs such as IWRA and other professional NGOs concerned with the environment and water should be enlisted to utilize their network of members to enhance the sustainability of water, soils and other natural resources.
- (4) Comprehensive impact studies are needed to assess the value or otherwise of major water development facilities.
- (5) Small demonstration projects for desalination of brackish waters should be undertaken to determine actual costs in areas remote from fresh water supplies.
- (6) Considering the need to provide more and more water to satisfy the increasing requirements of the people in arid and semi-arid regions, water

professionals should make every effort to put water on the international agenda.

- (7) Re-use of waste water may assist in overcoming the critical water situation and protecting the Mediterranean environment. For this it must be considered as a major element in the water strategy. Each country in the Mediterranean region should set up a policy and evaluate waste water reuse to protect natural sources and ensure sustainable development.
- (8) Considering the negative health and environmental effects of agricultural projects it is recommended that the governments of the countries from the Mediterranean region should:
 - (a) integrate health goals on land and water resources projects, particularly those involving irrigated agriculture;
 - (b) include health promotion and disease control considerations as basic directives for the planning, construction, management and operation of agricultural systems.

A follow-up activity was also suggested by convening a Conference for early 1996 to be organized by Bari Institute.

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Asian Water Forum on International Waters

Bangkok, Thailand, 30 January–1 February 1995

The Asian Water Forum was convened at the Asian Institute of Technology (AIT), Bangkok, Thailand, 30 January–1 February 1995, by the Committee on International Waters of the International Water Resources Association (IWRA), United Nations Environment Programme, (UNEP) and United Nations University (UNU). The Forum considered three major international rivers of Asia: Ganges–Brahmaputra, Mekong and Salween.

Participation in the Forum was restricted to 30 experts, who were specifically invited in their personal capacities. Three types of participants were invited: senior technocrats and decision makers from the co-basin countries of the three rivers, leading experts of these three systems, and representatives of the major funding agencies such as the World Bank, Asian Development Bank and the UN System.

In his welcome address, Prof. Alastair North, President of AIT, pointed out that Asia is facing a serious water crisis in the foreseeable future. Demand for water is increasing in all the Asian countries because of population growth and higher standard of living. Solutions can only be found if technological, socio-economic and environmental issues are considered simultaneously. He stressed the importance of international dialogue both for knowledge and technology transfer and for the management of international waters.

Subin Pinkayan, the former Foreign Minister of Thailand, and earlier Professor

of Water Resources Engineering of AIT, said in his Keynote Address that the development and management of international waters would be a critically important issue in Asia in the 21st century. Handled properly, fairly and efficiently, the stream of benefits that is likely to accrue to all the co-basin countries of an international river would not only be significant but also could be long lasting. In contrast, if these complex issues are mishandled, the potential for serious conflicts, or even serious regional instabilities, cannot be ruled out.

In setting the scene for the Forum, Asit K. Biswas, Chairman of the Middle East Water Commission and convenor of the Asian Water Forum, pointed out that with a projected population growth in Asia of 47% between 1992 and 2030, and a rising standard of living in the region for millions of people, water requirements will increase very significantly during the next several decades. Equally, the cost of developing each new cubic metre of water in the future will become increasingly expensive as supplies become more and more difficult to develop, and also as a result of an increase in water pollution. He forcefully argued that if the water crisis of the future is to be resolved, water must receive a much higher priority on the international agenda. Water was at best a 'bit player' at the UN Conference on Environment and Development, held at Rio in 1992, where issues such as climate change and biodiversity took the centre stage. This is in spite of the fact that millions of people are dying each year due to lack of clean water and/or floods and droughts. Climate change has not killed a single person so far, and is unlikely to do so for the next few decades, even if the most pessimistic scenario becomes a reality. Thus the perception of the importance of water internationally needs to be changed. He argued that a water crisis is approaching fast, and, within this crisis, management of international waters will become a main focus.

Two papers were specially commissioned on each of the three river systems. It was noted for the Mekong that its lower part had been 'studied to death'. Hundreds of millions of dollars have been spent on various technical studies, but these have had little impact on political decision makers. Accordingly, they have basically remained paper exercises. A new agreement was signed in April 1995 by the four riparian countries of the Lower Mekong River: Cambodia, Laos, Thailand and Vietnam. It was generally agreed that this agreement was a good beginning but it will be a difficult task to move from indicative planning to actual development.

The integrated management of the Ganges–Brahmaputra system has been a very difficult task since the three countries concerned—Nepal, India and Bangladesh—have not reached any common agreement so far. One possibility suggested by B. G. Verghese was to extend the subject of negotiations beyond water. For example, Bhutan, Nepal and north-east India are all landlocked areas. Thus, transportation rights may be offered as a *quid pro quo* for water rights. Similarly, hydropower could be generated in Nepal for use in India and Bangladesh. By broadening the negotiating base, it may be possible for all three countries to have a 'win-win' result.

In contrast with the Mekong and the Ganges–Brahmaputra systems, there is currently no conflict between Myanmar and Thailand over the Salween River. It was generally agreed that not only will the proper development of the Salween benefit both the countries but also the current political climate is favourable for the cooperative development of the river.

The three river systems presented different sets of problems and opportuni-

ties. They are also at different stages of development. However, the very fact that the senior decision makers from the co-basin countries are willing to meet in such a Forum, albeit a closed one, for a free and frank discussion of the issues, can only augur well for the future.

The commissioned papers for the forum and its conclusions and recommendations will shortly be published by Oxford University Press.

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International Workshop on National Water Master Plans

Mexico City, 27–29 March 1995

The International Workshop on National Water Master Plans was convened in the Hotel Calinda Geneve, Mexico City, 27–29 March 1995. The Workshop was jointly sponsored by the Committee on International Waters of the International Water Resources Association (IWRA), and the Comisión Nacional del Agua (CNA) of Mexico with the support of the United Nations Environment Programme (UNEP).

Participation in the workshop was by invitation only and was limited to 35 leading international and Mexican experts on national water master plans. Five national case studies were specifically commissioned for review and discussion during the workshop. These were from Bangladesh, Egypt, India, Nepal and Mexico. In addition, two other major studies were presented, one by the United Nations Development Programme (UNDP) reviewing its experiences with some two decades of support for national water master plans in several developing countries, and the other by the World Bank recommending guidelines for preparation of national water strategies.

In opening the workshop, Guillermo Guerrero Villalobos, Director-General of CNA, pointed out that there have been major institutional changes in Mexico under the new Administration. CNA is now a decentralized organization, which is no longer part of the Ministry of Agriculture, the sector which is the biggest user of water, but part of the Ministry of Environment, Natural Resources and Fisheries. The concept of centralized planning, which was almost exclusively carried out by the Federal Government, has been replaced by decentralized and participative planning wherein the various stakeholders have an influence in policy formulation, alternative designs, investment choices and management options affecting their communities. The problems Mexico had to face in ensuring efficient, equitable and environmentally sound development of the country's water resources have demanded constant evolution of the water planning process as well as the institutional setting and the legal framework for water management. Other developing countries have had to face similar challenges. The present workshop had provided an ideal opportunity to review the different approaches used by various countries. This sharing of experiences between the countries with somewhat similar backgrounds can only be beneficial to everyone.

In setting the scene for the workshop, Prof. Asit K. Biswas, the convenor, said

water has already become a critical resource issue for many developing countries, and a serious water crisis can be expected in numerous developing countries within the next decade. Hence, efficient national water planning is an important requirement. During the past two decades, several developing countries have prepared national water master plans with varying degrees of success. Many other countries are embarking on preparation of national water master plans. Hence, it is essential to review objectively the planning processes used by different countries so that the water profession can learn from such experiences.

There were intensive and extensive discussions on different aspects of the planning process. Many fundamental problems and issues were raised, among which were the following:

- How can sustainable water development be defined so that it has an identical meaning for everyone concerned? How can the concept be operationalized?
- National goals and objectives often change with each new government. Planning is a long-term process. How can the changing national priorities be effectively and promptly reflected in the plans?
- Plans of other major sectors such as agriculture, industry, power and environment have major impacts on water requirements and availability. How can all these sectoral plans be harmonized?
- How should the planning process be evaluated? Who should do the evaluation and for whom?
- What should be the role of private investment?
- How can the planning process be institutionalized to ensure its implementation?
- Cost recovery and water pricing are receiving increasing attention. How should agricultural water be priced, and how can we ensure the fees are actually collected?
- How can political support be generated and maintained for the water sector?
- Through what process can the stakeholders participate effectively in planning?
- What should be the role of professional and activist non-governmental organizations?
- Water has not received much attention in the national and international agenda. How can this situation be changed?
- Capacity building in various aspects of water planning is an urgent necessity. How can this be achieved?

The specially commissioned case studies and reports for the workshop, as well as the summary of its discussions and conclusions, will shortly be published by Oxford University Press, with Asit K. Biswas, César Herrera, Hector Garduno and Cecilia Tortajada as editors.

Asit K. Biswas (Oxford) and Cecilia Tortajada (Mexico City)
Chairman and Vice-Chairman
Committee on International Waters
International Water Resources Association

CALENDAR

October 17–20 1995, Iraklio, Crete, Greece

Second International Symposium on 'Wastewater Reclamation and Reuse'. *Contact:* Mrs T. Furnaraki, Municipal Enterprise for Water Supply and Sewerage of Iraklio, 1 Vironos St., 71202 Iraklio, Greece. Tel: + 30 81 229913/225833; fax: + 30 81 229991.

October 22–27 1995, Tsukuba, Japan

Sixth International Conference on the Conservation and Management of Lakes. *Contact:* Lake Kasumigaura Water Pollution Control Division, Department of Civil Life and Environment, Ibaraki Prefectural Government, 1-5-38 Sannomaru, Mito, Ibaraki 310, Japan. Tel: + 81 292 246905; fax: + 81 292 332351.

November 5–9 1995, Houston, Texas, USA

AWRA 31st Annual Conference & Symposia: 'Water Management in Urban Areas'; 'Advances in Model Use and Development in Water Resources'; and 'North American Water Resources'. *Contact:* AWRA, 950 Herndon Pkwy, Suite 300, Herndon, VA 22070-5528, USA. Tel: 703/904-1225; fax: 703/904-1228.

November 18–24 1995, Abu Dhabi, UAE

World Congress on Desalination and Water Reuse. *Contact:* IDA Program Chairman, Government of Abu Dhabi, Water & Electricity Dept., PO Box 219, Abu Dhabi, UAE. Tel/Fax: 971-2-772-530.

November 27–30, Newcastle, NSW, Australia

International Conference on Modelling and Simulation. *Contact:* Secretariat, Dept. of Civil Engineering and Surveying, University of Newcastle, Newcastle NSW 2308, Australia. Tel: 61-49-21-5735; fax: 61-49-21-6991.

January 4–8 1996, Orlando, FL, USA

CONSERV96. *Contact:* Rick Harmon, AWWA, 6666 West Quincy Ave, Denver, CO 80235. Tel: 303/794-7711.

March 4–6 1996, Arlington, VA, USA

Fifth Water Resources Operations Management Workshop: Water Resources Planning and Management Division, ASCE. *Contact:* Dr Paul Kirshen, River Systems Association, PO Box 440, Groton, MA 01450. Tel: 508/448-0934; or, Prof. Aris Georgakakos, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA 30332-0355. Tel: 404/894-2240.

April 16–19 1996, Vienna, Austria

HydroGIS '96: International Conference on Application of Geographic Information Systems in Hydrology and Water Resources Management. *Contact:* HydroGIS '96, c/o Austropa-Interconvention, PO Box 30, A-1043 Vienna, Austria. Tel: + 43(1) 588 00 110; fax: + 43(1) 586 71 27.

June 11–14 1996, Québec City, Canada

Ecohydraulics 2000. *Contact:* Dominique Houde, Secretariat c/o Agora Communication, 2600 Boulevard