



## Conference Reports

### **Workshop on Challenges to Urban Water Management in Developing Countries, Stockholm Water Symposium, Stockholm, 11 August 1999**

The workshop on Challenges to Urban Water Management was organized within the 1999 Stockholm Water Symposium. It was co-chaired by Prof. Asit K. Biswas (President, Third World Centre for Water Management, Mexico City) and Mr Kalyan Ray (Head, Infrastructure Division, UNCHS, Nairobi), and co-sponsored by the International Water Resources Association, Third World Centre for Water Management, and UNCHS (Habitat). The main objectives of the workshop were to analyse economic, environmental, political and institutional concerns and issues which developing countries are facing at present to provide clean water, sanitation facilities and flood management to ever-increasing urban centres. Present alternatives and solutions were discussed.

Case studies of arid and non-arid developing countries and countries in transition were analysed. The presentations focused on a somewhat similar set of issues regardless of the geographical conditions. African countries, as well as those located in the Arabian Peninsula, Eastern Europe, Asia and Latin America, all seem to share similar concerns. They often suffer from the absence of efficient institutions; lack of appropriate regulations or sectoral policies and their implementation mechanisms; inappropriate management practices; and too much centralization. They often do not foster public-private partnerships or encourage application of demand management practices, and do not give adequate attention to education and capacity-building. All these are complex issues which cannot be resolved on a short-term, *ad-hoc* basis. An integrated and comprehensive long-term approach is necessary.

While the main problems in countries such as Bangladesh were discussed and felt to be related to management of floods and severe water-quality problems, arid countries such as Saudi Arabia have focused on the development of technology and expertise to construct and provide potable water to their entire populations. The workshop participants generally agreed that long-term solutions lie not only in construction of new infrastructure but also in concurrent implementation of demand management and conservation practices, development of appropriate strategies and regulatory frameworks, and transformation of existing institutions to make them increasingly efficient. Without such an integrated and concerted approach, sustainable water management in the urban centres of developing countries will simply not be possible.

Regarding institutional development, it was argued that traditional programmes on capacity building could result in even worst bureaucratization of organizations. Institutions often emphasize quantitative targets at the cost of quality of services provided. Well-documented research presented during the

workshop indicated direct relationships between the structures of the institutions and their effectiveness in terms of providing acceptable urban water management.

Two of the papers reviewed how environmental degradation in terms of the water sector is already threatening economic development. Current practices such as environmental impact assessment were considered to be ineffective in Mexico and São Paulo.

It was argued by some participants that geographical units for water management needed to be reviewed. They may not necessarily be formed in terms of river basins for a variety of political, institutional, legal and cultural reasons. In some cases, the units could perhaps best be managed by division into administrative regions. This is an area that needs further serious consideration, especially for urban water management.

The workshop discussed extensively the advantages and disadvantages of both public and private ownerships of urban water systems. There was general agreement that neither the public nor the private sector alone can resolve urban water problems successfully: there has to be public-private partnership. The form and nature of the partnership may vary from one country to another, and even from one state to another in certain countries. There is thus no one single solution. Additional research needs to be carried out on the nature and type of implementable regulatory frameworks that need to be developed for specific countries, and also on how to ensure that the interests of both the urban poor and the private sector investors could be simultaneously protected. Dogmatic approaches, in favour of either the public or private sector, are unlikely to be successful on a long-term basis.

It was unanimously agreed that there is no single solution to the problems of urban water management in the developing world. The solutions developed must be site-specific, and must specifically address the climatic, economic, social, environmental and cultural conditions of the areas concerned. Transfer of experience, technology and management practices from developed to developing countries has not proved to be as effective as initially expected for several reasons. Thus, site-specific and cost-effective strategies need to be developed and implemented.

It was also agreed that a major challenge to urban water management in developing countries will be timely availability of affordable investment funds. The World Bank currently provides a total loan of US \$2.9 billion per year to the water sector. While no reasonable estimate currently exists for investment requirements for urban water management for all developing countries of the world, it is likely to be several hundred times the current World Bank support. For example, estimates carried out by the Third World Centre for Water Management indicate that only about 6% of wastewater generated in Latin America is properly treated. The investment needed to increase wastewater treatment to only 50% for Latin America alone is likely to be astronomical. Simultaneously the human resources necessary to operate wastewater treatment plants and manage water quality programmes in the region would be very substantial. Countries do not at present have adequate capacity and expertise to manage substantial increases in wastewater management, even if the necessary investment funds were made available by a miracle. These are important issues that require urgent consideration in the coming years.

Selected papers from this workshop will be published as the March 2000 Special Issue of the *International Journal of Water Resources Development*.

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### **Workshop on Integrated River Basin Management in Latin America, Mexico City, 26–28 April 1999**

Integrated river basin management is not a new concept. Even though this concept was developed more than five decades ago, its implementation has been far less than ideal. For Latin America, interest in integrated river basin management was rekindled in the 1990s, and it has resulted in the establishment of river basin authorities in several countries. Knowledge and experience transfer within the Latin American countries leaves much to be desired and, not surprisingly, the various Latin American advances in this area in terms of new ideas and technologies are mostly unknown not only within the region itself but also in the rest of the world. In order to distil the Latin American experiences on integrated river basin management, objectively review the status of implementation of the concept in the region, and consider what other feasible management alternatives may be available, the Third World Centre for Water Management (TWCWM) convened a very high-level workshop on the issue in Mexico City, 26–28 April 1999, with the support of the Committee on International Collaboration of the International Water Resources Association (CIC-IWRA), the Inter-American Institute for Cooperation on Agriculture (IICA), the British Council and the International Water Management Institute (IWMI).

Participation at the workshop was by invitation only, and was restricted to 25 senior policy makers and experts on water resources planning and management in Latin America. Thirteen background papers were specially commissioned to set the scene for the discussions. Among the papers commissioned were global reviews on experiences of integrated river basin development planning and management; experiences of the Inter-American Development Bank in the region; the role of governments in the integral management of basins in Latin America, and specific case studies from Argentina, Brazil, Chile, Mexico and Venezuela. Technical, economic, social and environmental issues, and legal and institutional perspectives were reviewed in depth.

The issue of sustainability within the context of integrated river basin management was an important focus of discussion. It was noted that even though sustainable development is a very attractive concept, its operationalization within the context of river basins has not been successful. Progress has been basically incremental thus far. Among other issues discussed were lack of real public participation in a hierarchical decision-making processes; difficulties in integrated management of international river basins because of the national sovereignty issues; development of water markets and other economic instruments for demand management, institutional weaknesses, preservation of social and cultural values and environmental conservation. Often, integrated development of river basins unfortunately seems to be more of a reflection of the

interests and priorities of the main institutions involved in the water management and planning processes, rather than rational management of water and associated resources which should maximize the benefits to the populations concerned on a long-term basis.

So far as the concept of efficient river basin management is concerned, it was agreed that a conceptual framework is needed, with a strong emphasis on its implementation potential within the varying technical, social, economic, environmental and institutional conditions prevailing in the region. Broad generalized concepts are counterproductive since people interpret them very differently and their implementation of vague ideas is very difficult. It is important to realize the complexity of the reality, and understand that the integral management of water resources depends on political, economic, social, cultural, historic and environmental issues, which could vary not only with time but also spatially. Only two countries in Latin America, Brazil and Mexico, are now required by law to consider river basins as units of management for water resources of the country concerned. Such management units were considered necessary for the optimal management of water resources. While this arrangement appeared to work for a few cases (the upper Tiete Basin in Brazil was mentioned), it was agreed that it did not represent the best alternative for the management of water resources from a practical viewpoint in most cases. Regionalization was recognized as a more feasible option to achieve practical solutions.

It was noted that integrated management of water resources, irrespective of the rhetoric, has made limited progress. Integrated planning of river basins should be based on a dynamic methodology which can be adapted to specific conditions. There should be a long-term plan but with clear short and medium-term goals. The authorities responsible for water management should not be isolated from the other ministries, but in reality this is a difficult goal to achieve. For Latin America, water is a national priority, and its efficient planning should simultaneously include water requirements of different economic sectors as well as the impacts of these sectors on the water planning process.

The present model of river basin management depends heavily on high initial investments in infrastructure, which sometimes may not be a feasible alternative for the Latin American countries because of the regular economic crises they have faced in recent decades. This reality is likely to force the water planners to develop models that depend less on financial investment and more on management-oriented solutions. The implementation of economic instruments requires special attention, since the absence of adequate regulation and surveillance could result in monopoly situations and/or improper management processes. Economic issues are very important, but they should not be considered automatically to be the only or even the main alternative for sustainable river basin management.

Legal frameworks related to river basin management should be congruent with the economic, social, political and institutional conditions of the different countries. Legislation should be redefined so that it is compatible with the present trends of increasingly privatization and social participation. Emphasis should also be placed on the implementation aspects of the existing legislation.

The meeting noted that qualified and experienced personnel currently do not exist in the Latin American countries to ensure integrated management of river basins. Capacity building, holistic vision and interdisciplinary approaches have

now become a 'must' to manage the changing conditions of river basin management. A new generation of water professionals with a broader mind set and appropriate management skills is now urgently needed to manage river basins in a rapidly changing world.

It was noted that social participation is essential for better water management. However, methodologically, it is still very difficult to ensure active social participation in water management processes. Often interest groups are trying to capture the water management processes to promote their own agendas in the guise of 'people participation'. Access to data and information were also recognized as important constraints.

The various Latin American countries have made considerable progress in certain specific areas of water management. In order to identify these advances, the Third World Centre for Water Management and the Committee on International Collaboration of the International Water Resources Association are jointly sponsoring a series of focused, invitation only, workshops. The present workshop was the second of this series. The papers commissioned for the workshop and its results will shortly be published by Oxford University Press, with Asit K. Biswas and Cecilia Tortajada as Editors.

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