

Conference Report
Workshop on Transboundary Water Management
Helsinki, Finland, 17-19 August 2005

An International Workshop on Transboundary Water Management was organized by the Water Resources Laboratory of the Helsinki University of Technology and the Third World Centre for Water Management in Mexico, with the support of the Finnish International Development Agency. The workshop was co-sponsored by the International Water Resources Association.

The main objective of the workshop was to make an objective and comprehensive assessment of the experiences in managing transboundary river and lake basins from different parts of the world. This workshop was a follow-up to the recommendation of the Johannesburg Plan of Implementation, which stipulated that all major river basins of the world should have an Integrated Water Resources Management and Efficiency Plan by the end of 2005. The case studies specially commissioned for this event included the Mekong, Indus, Ganges-Brahmaputra Meghna, Tigris-Euphrates, Jordan, and La Plata river basins; Great Lakes, Southern African, and Finnish transboundary river basins; and Chinese experiences in managing transboundary rivers.

For the Mekong River system, the institutional setting has been responsible for the limited implementation of development activities. Approximately 90 percent of the funding for the Mekong River Commission (MRC) comes from the donors, and the funding is not necessarily allocated in accordance to the needs, requirements, and wishes of its member countries. Development history indicates that donor-driven activities generally contribute to limited commitments from the stakeholders, which in turn produces limited progress. Until the countries can develop a sense of ownership in the institution and until there is clear understanding of the benefits that could accrue to each partner due to its future activities, the impacts and effectiveness of MRC will continue to be somewhat immaterial.

The Indus Treaty between India and Pakistan can be considered a successful case of cooperation between two countries where, in spite of overall mistrust, water issues have remained outside of the national conflicts. In fact, water has been a cementing force mainly because the Treaty has enabled both countries to expand their irrigated areas. For example, nearly the entire irrigated area of Pakistan is within the Indus basin. Without the Treaty, the developments in both the countries would have been significantly constrained.

In contrast, development in the Ganges-Brahmaputra-Meghna basin can be considered to be a missed opportunity, especially between Bangladesh, India, and Nepal, due to mutual mistrust and political posturing, which have prevented the economic development of one of the poorest regions of the world. As a result, benefits have been forgone, and the region has developed very slowly. The cooperation between these countries on issues like hydropower generation, navigation, flood control and agricultural development has been hampered mainly due to political reasons. In contrast, the cooperation between India and Bhutan has proved to be remarkably successful and can be considered as one of the most outstanding global examples where mutual trust has ensured very significant “win-win” situation for both the countries. India supported Bhutan to plan and construct its hydropower projects and to finance them as well. Hydropower is now by far the most important export component of Bhutan, which sells excess electricity to India under a prearranged pricing formula. Because of this enlightened and cooperative approach to development, in about three decades, per capita GDP in Bhutan has moved from being the lowest in South Asia to its highest.

The management in the Tigris and Euphrates river basins has become very complex because of the geopolitics of the region. Even then, there are many opportunities for cooperation between Turkey, Syria, and Iraq, within which the water can be used as an engine for economic development to improve the quality of life of the people of this region. One positive sign is that the present leaderships seem to be more receptive in promoting dialogue and formulating action-oriented policies. Besides national governments, international organizations have been sometimes responsible for the misunderstanding on the management of this basin. An example is the misconception created by UNEP, which in 2001 claimed that the main cause for the decline of the marshlands in Iraq was the dams constructed upstream, in addition to drainage schemes in Iraq since the 1970s, which reduced water flows to the marshlands. However, somewhat surprisingly, UNEP concluded in 2005 that the marshlands have almost recovered even though the dams in question are still operational upstream.

The importance of realistically evaluating the overall water demands for various purposes was noted for the Jordan River. The present and the future water demands should consider real and not perceived scarcity, which often results from the structure of economic activities. Further consideration needs to be given to rights versus needs and needs versus wants. Within the context of this river basin, the allocation of water for ecological and environmental purposes has not been given any attention. While the importance of water for ecological needs is now universally acknowledged, it was also stressed that such new allocations for ecological needs may mean that less water may be available for domestic, agricultural, and industrial requirements, which means that there may have to be a trade-off between poverty alleviation and environmental conservation. How this trade-off can be structured in a socially acceptable way remains an open question.

The evolution of the institutional framework for the La Plata river basin throughout the years was discussed. For example, the 1969 treaty only focused on infrastructure, but not on water management issues. At present, there are a number of institutions for the implementation of the agreements between the countries. However, the bilateral and trilateral commissions have focused primarily on infrastructural issues, and they are responsible for operating the dams. An appropriate focus on water management issues is still missing. Within the basin, the challenges identified for implementation have been in terms of integrated management of the overall basin, introduction of environmental and ecological considerations, even at the expenses of economic activities, fragmented management of water resources within the countries, international and national regulations with erratic implementation, absence of land management policies, and pollution of surface and groundwaters.

Transboundary waters should always be considered within their historical, political, and geographical context. In the case of the Great Lakes, while the international management of these lakes has often been cited as a model, the present governance system has developed only after 100 years of economic development during which the overall ecological system underpinning these lakes was destroyed. It is now in the process of recovery. When reassessing the agreement between Canada and the United States every two years, joint collaborative institutions have reviewed their priorities and thus their options and management practices. Not surprisingly, water management paradigms and strategies have progressively evolved. At present, there are multiple levels of leaderships and initiatives, which is a result of a shift in decision-making from being primarily in the domain of the central governments to include states and provinces, scientists, civil society and non-governmental organizations. This has enriched the decision-making process because of the consideration of new perspectives and higher levels of stakeholder participation even though this has meant that the process has become costlier and more time consuming than ever before. Institutionally, the decision-making has become very complex because of the

involvement of two federal countries, provincial, state, and municipal governments, as well as other actors. In spite of this development, however, the overall impression in Canada and the United States is that the agreement on the Great Lakes does not reflect the views of the people regarding water resources management. Whether or not the agreement between the two countries should be exclusively on water or on a more comprehensive ecosystem viewpoint, is now being discussed.

Finland shares several transboundary rivers with Sweden, Norway, and Russia. The relations of Finland with Norway and Sweden are especially good since the countries share similar systems of governments, institutions, and cultural and legal conditions. The implementation of the agreements with Russia, however, present somewhat of a challenge. The main role of the Finnish and Swedish Frontier Commission is to grant permits for water works. They also have a coordinating responsibility for supervising various water uses and effluents discharged to water bodies, and their decisions are final in terms of granting of permits. However, their tasks do not include cooperation and collaboration in water management. A new Finnish Swedish Commission could include a broader range of coordinating tasks. Another case is the Finnish-Norwegian Commission on Frontier Water Systems, with no decision-making power. Finally, the Commission for water issues between Finland and Russia is mainly for regulating hydropower, flood control, and provision of water as well as for exchanging data and information. The EU Water Framework Directive sets now new pressures to all of these agreements towards being topically broader and more comprehensive than the present ones, particularly in terms of basin-wide monitoring and planning systems.

The case of Southern Africa is a good example of water as an important driver for cooperation. In this part of the world, transboundary river basins are geographically located where there have been conflicts. The situation is aggravated by the likelihood and intensity of disputes, which may exceed the institutional capacities to handle them. In fact, eight of the 17 river basins identified as basins at risk in a study by Aaron Wolf (1999), are in Africa, six of them in Southern Africa: Incomati, Cunene, Limpopo, Okavango, Orange, and Zambezi. However, recent analyses indicate that there is more cooperation in these river basins than conflict, and these basins cannot be considered to be "at risk." The usefulness of the Southern African Hydropolitical Complex (SAHPC) should be recognized as a tool for conflict mitigation because it is a model that does not threaten the sovereignty of the countries, but encourages interstate cooperation.

The relative size of countries sharing transboundary waters and the location of cross-boundary basins within each country are critical considerations affecting the degree of cooperation between the riparian countries. In the case of China, where nearly one-third of the land area lies in transboundary basins, management of transboundary rivers rarely figures in national water policy discussions and decisions. An intrinsic reason to avoid multilateral approaches could be structural, since large upstream countries like China often perceive that they are likely to incur in more losses than gains in formal cooperation on equal basis in discussions with smaller and less powerful countries. Formal participation in treaties is impeded by arguments that to do so may violate national sovereignty, create an unfavorable imbalance in rights and obligations, and require a mandatory settlement of disputes that is politically unacceptable.

After the intensive and extensive discussions of the commissioned case studies and subsequent overall analysis, many important issues were raised, among which were the following:

- It is unrealistic to compare management of transboundary water bodies with a single criterion. River basins have different physical and environmental characteristics; political, institutional and legal frameworks; water demand and use patterns and water use efficiencies; and economic and management capacities. In addition, power relationships are asymmetrical, and there are few unmitigated successes in transboundary basin management, by any measure. This means that transfer of knowledge and experience from one basin to another should be handled with caution and that management plans for specific basins should be formulated with proper consideration of their own specific requirements, rather than direct adoption of an imported model.
- While conceptually the concept of integrated river basin management may be attractive, it should be noted that many times it may neither be practical nor realistic to expect inter-country agreements on large transboundary basins, like the Ganges Brahmaputra-Meghna, La Plata, or Euphrates-Tigris systems to consider a basin-wide management. Sub-basin plans and agreements may be more realistic. Sometimes, it may even be necessary to consider separate agreements between the upper riparian countries and between lower riparian countries, particularly if a basin-wide treaty is politically out of reach, or if the basin is too large to be handled as one management unit.
- Institutions for managing transboundary water bodies generally have limited enforcement authority and have not been very effective as implementing agencies. However, they could be useful as channels for communications and discussions and also for exchange of data and information. Some of such institutions reflect the conflicts and tensions between the riparian countries. While they make some contributions in the diplomatic arena, their impacts sometimes go outside the water sector.
- The existing literature on managing transboundary water bodies often focuses on conflicts and risks. These analyses are mostly academic and often full of misconceptions and misunderstandings, since the authors generally have limited knowledge and understanding of the background situations and the politics behind the issues. Lack of appreciation of the social-cultural-political-institutional contexts of the overall inter-country relationships, limited availability of data and analyses which are generally considered to be sensitive by many of the co-basin countries concerned and thus are kept confidential, and limited access to the real decision-makers have ensured that the real situations are seldom analyzed. These misconceptions and misunderstandings are often repeated by various authors, which gives them a general impression of being true.
- Treaties and institutional arrangements cannot remain static. Factors like water requirements, use patterns, and efficiency of management change with time, as do water management paradigms, practices, and processes. In addition, technology improves continually, social perceptions are dynamic and human knowledge, like the universe, is steadily expanding. Thus, there is more than ever a need to strive to create resilient agreements that provide for effective cooperative action while responding to continuous and often unforeseen change.
- History generally shows that treaties function better if they result in visible benefits to all parties concerned, irrespective of the overall inter-country relationships. A good example is the Indus Treaty, where inter-country conflicts have remained outside the water issue, and these conflicts, though very substantial, have not noticeably affected the functioning of the Treaty.
- Success in negotiating treaties over transboundary water bodies is often greater without intermediaries. The countries need to develop their own road maps based on their own

requirements and expectations and then negotiate the best possible agreement from their own perspective as well as the needs of their neighbors. The overall agenda for cooperation between the countries concerned often encircle many issues, some of which could be political, and is likely to extend well beyond water. A good example is the current window of opportunity between Bangladesh and India to resolve their inter-country water issues. The main driver for this change has not come from the water sector but from the energy sector. In a world that is becoming increasingly interdependent and globalized many of the developments outside the water sector will have major impacts on the water sector, including management of transboundary water bodies. These developments could provide new opportunities for negotiating inter-country agreements on transboundary water bodies.

- The relationships between the co-basin countries invariably have historical roots. These are complex and extend well beyond water. The exact nature of these intricate relationships is mostly too nuanced to be understood only in terms of geography or a single issue like water. Any study or analysis that focuses on the river basin level is likely to miss this complex reality. Accordingly, it is essential for the analyst and decision-makers to understand the overall nuances in patterns of cooperation and competition that exist in transboundary river and lake basins.
- The Johannesburg Plan of Implementation called for all major river basins of the world to have an IWRM and water efficiency plan by the end of 2005. The case studies clearly show that approaching the myriad of dimensions, problems and challenges of the world's major river basins, many of them being transboundary, with such one-shot plans – although being an attractive idea at the first glance – is somewhat simplistic in many ways. In addition, there are serious doubts if IWRM can actually be applied in transboundary water bodies. Nor surprisingly, very few transboundary river and lake basins are likely to prepare IWRM plans by 2005 or for that matter any time in the foreseeable future, irrespective of considerable pressure from donor and international agencies.

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