



## **Conference Report**

### **Workshop on Integrated Water Resources Management for South and South-east Asia**

*Bangkok, Thailand, 2-4 December 2002*

Integrated water resources management (IWRM) is not a new concept. It has existed in one form or another for well over half a century in the voices and writings of eminent water experts such as Prof. Gilbert White and others. In 1977, the United Nations Water Conference in Mar del Plata had a specific resolution promoting this concept. Later, IWRM was included as one of the so-called principles of the Dublin Conference. More recently, the programme of the Global Water Partnership, to a very significant extent, is based on this concept.

However, even after some 70 years of existence, there are no good examples as to how, or if, the concept of IWRM can be implemented, and also under what conditions, so as to make water management more efficient, especially for large water development projects. Accordingly, in order to discuss and analyse the application of this concept and its extent of implementation, the Helsinki University of Technology, and the Third World Centre for Water Management in Mexico, with the support of the Finnish International Development Agency, organized a workshop on Integrated Water Resources Management for South and South-east Asia at the Asian Institute of Technology, Bangkok, 2-4 December 2002. Participation in the workshop was by invitation only, and was restricted to the leading water experts from the region.

The commissioned papers were prepared by (in alphabetical order) Drs. Keizrul Bin Abdullah, M.S. Babel, Ian Campbell, Ashim Das Gupta, Jan Møller Hansen, Shamsul Huda, Katri Makkonen, Ryo Matsumaru, Miura Mitsuo, A.D. Mohile, Iswer Raj Onta, Do Hong Phan, Lars Skov Andersen, C.D. Thatte, and Olli Varis.

The current status of the use of the IWRM concept to improve water management in the region was examined through a series of commissioned case studies from several countries such as China, India, Malaysia, Nepal, Thailand and Vietnam, and from the Mekong River Commission. The case studies were neither academic nor theoretical, but very specifically focused on what have been the achievements and constraints in terms of implementation of the concept of IWRM in South and South-east Asia, and what have been their advantages and disadvantages.

Olli Varis set the stage for the Workshop with an excellent framework on IWRM for the region. He analysed the relationships between this concept and issues such as population, urbanization, human development, centralization, globalization, regional integration, malfunction in governance and environmental policies, economic underdevelopment, poverty, food insecurity,

climate change, and environmental degradation. While all these individual topics are major macro issues by themselves, it is important to realize that the water-related issues extend well beyond this sector, and are often closely interlinked with other development issues. Water problems thus should not be considered in isolation from other associated development-related issues. Unfortunately, this is the situation in nearly all countries at present.

It was generally agreed by the participants that while there have been many attempts to use IWRM in the region, there is still no single case wherein the concept has been implemented successfully. There are many successful examples of water management in this region, but these have not followed the IWRM model. Also, many important issues have not been considered when implementation of IWRM has been attempted. For example, in terms of development plans, policies have not always reflected the local needs, making it difficult to match theory with reality. In addition, perhaps because the concept of IWRM is somewhat broad and amorphous, it has relied often on the model of river basins in terms of institutional arrangements.

The concept of river basins as units for water management has not been easy to apply for inter-state and international rivers, where the principle of IWRM and the sovereignty of the states do not necessarily coincide. Furthermore, with increasing inter-basin water transfers, the earlier concept of management by a single river basin is becoming increasingly obsolete and irrelevant. If all the river basins involved with an inter-basin water transfer scheme are consolidated into one management unit, the unit becomes so large that politically and institutionally its effective management as a single unit becomes almost impossible. While hydrological units could be most appropriate for managing water resources, the region, for all other issues, basically functions in terms of administrative units, which rarely are identical with the hydrological units. In addition, the numerous stakeholders within the basin still have to support the decisions of the institutions, and such support may not be forthcoming if certain stakeholders perceive that the proposed actions may affect them negatively. The question that arises is: does this mean that the river basin may not always be the best unit for water management, and that administrative boundaries may in some cases have to be selected for managing inter-state rivers and large-scale inter-basin transfer schemes?

One of the two very good cases related to India pointed out “the picture of a well managed basin, with an integrated plan of development by various governments, other stakeholders and water use interest on to the overall satisfaction of everyone, appears almost to be utopian. What is achieved at the national and sub-national levels is more of an integration in bits and parts”. It was further noted that the constraints to implement the concept of IWRM do not stem from the lack of policies, but from the inappropriateness of the legal and institutional frameworks, as well as the many unsuitable decision-making processes at the different governmental levels. In general, an objective review of the situation in the region indicates that in the area of IWRM, there are more questions than answers, and more challenges than achievements.

The views of the participants were very similar in the sense that the main constraint for the applicability of the IWRM concept for the region has been its actual use in the real world. While conceptually the IWRM is attractive, its application in terms of integration of various issues from within and outside the water sector has proved to be immensely difficult. The reality is that fragmentation and unco-ordinated management predominate within the sector, and between the sectors, and that issues as basic as participation and decentralization (without which it may not

be possible to integrate) are still in its infancy, not to mention the increasing urgency for information dissemination, awareness, education, capacity building and governance, both within and outside the sector. It should be noted that the same comment can be made on management of other, similar resource issues such as energy. While IWRM has been strongly promoted in recent years by most international organizations, the complexities and constraints associated with its application have received inadequate attention.

In addition, before any integration takes place, the knowledge base of water resources still has to improve significantly in terms of needs, uses and abuses by the different users and sectors. It is also essential to include the views and interests of the private sector, which has thus far been mostly neglected. The roles of the private sector in IWRM are likely to become increasingly more and more important in the coming years.

Another constraint has been that, in many cases, water resources and environmental management have often focused on infrastructure development. As important as this may be, it was noted that for a country such as Vietnam, integrated water resources and environmental management should, to a large extent, be “concerned with addressing issues such as legislation, policy and strategy development, institutional and capacity development, human resources development and management, and advocacy and dissemination. While there are certainly many technical issues to be addressed, policies and institutional and human resources issues are by far the most important aspects to be addressed for achieving integrated water resources and environmental management in Vietnam.” This view seemed to represent the situation not only for Vietnam, but also of the region as a whole.

As the several case studies noted, the promotion of the concept of IWRM into the policy-making arena of the countries is easy, but to implement it in terms of actual programmes and projects has proved to be exceedingly complex. It would require considerable effort and initiative from the different parties within the countries, as well as from the donors, whose interests often do not coincide with those of the countries concerned.

A more realistic alternative, if not to IWRM but to more suitable and efficient water resources management, may be the attempt to find ways to pursue the integration, even if partial, of the views of the different parties and obtain their commitments, even if small, as a first step towards a compromise.

A major issue remains for which no definitive answer is available at present. This is whether IWRM could indeed be effectively applied in the real world as an effective instrument to improve the standard of living and quality of life of the poor people in South and South-east Asia, and if so, how, and if not, why not. Since the main objective of water resources management in developing countries is to improve the quality of life of people, this is an issue that needs urgent attention.

The discussions at the workshop were frank, objective and constructive. Unlike in many other national and international fora, there was no rhetoric proclaiming that IWRM is the only way for water management for the future. Instead, the participants focused their attention on the extent of use IWRM in the region. Having generally agreed, as A.D. Mohile of India pointed out, the

progress thus far has been by “bits and parts”, the discussions shifted to why this has happened, and what may be possible in the future in terms of actual application of IWRM in the field.

The case studies are now being edited by Dr. Olli Varis and Prof. Asit K. Biswas, and will be published as a book by Oxford University Press. The resulting book will unquestionably be the first definitive, objective book on the status of the application of IWRM in the region, and its prospects for the future.

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