

Editorial: Integrated Water Resources Management in Latin America

During the past 15 years, much has been said and written about integrated water resources management (IWRM). In fact, one would be hard pressed to find a single national, regional or international organization in Latin America dealing with water that has not promoted IWRM in one way or another, and in one form or another, during the past decade. The emphasis given to IWRM may have varied from one institution to another, and at any one institution over time. However, it is fair to say that nearly all the water institutions of the region in recent years have considered IWRM at one time or another. The situation is somewhat similar in other regions of the world.

There is no doubt that IWRM received considerable attention during the International Conference on Water and the Environment held in Dublin in 1992. It received a further boost when the Global Water Partnership made IWRM a cornerstone of its technical programme, and the Summit for Sustainable Development, held in Johannesburg in 2002, recommended that every country should approve IWRM plans by 2005. Not surprisingly, with such major international forces backing this concept in recent years, many water institutions and professionals have sometimes considered IWRM to be the mantra that will solve all the world's water problems, irrespective of the type or scale of the problems, their geographical locations, or their governance environments.

Even though in recent years IWRM has been considered by most of the global water community as 'the solution', surprisingly few attempts have been made to analyze objectively and seriously the extent to which it has been applied successfully to improve water policies, programmes and projects at macro- or meso-scales. Furthermore, if and when the IWRM concept has been used, no serious attempt has been made to find out reliably what have been the improvements in terms of fulfilling the objectives of water management by using this concept which would not have happened without its use. Unfortunately, so strong has been the faith in IWRM in many quarters that these types of fundamental questions are not even being asked, let alone answered. Hundreds of millions of dollars are being spent each year to promote IWRM without seriously analyzing its implementation status in the real world, or determining its actual impacts in terms of better achieving the stipulated objectives of water resources management.

Because of the above and other unanswered associated questions, the Inter-American Development Bank (IDB), IDB-Netherlands Water Partnership Programme (INWAP), the National Water Agency of Brazil, Instituto Pro-Ambiente and the Third World Centre

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for Water Management organized a workshop in Rio de Janeiro, Brazil, to objectively review the status and extent of implementation of IWRM in the Latin American countries in order to determine whether the societal objectives of water management are being fulfilled better than before in a timely, cost-effective and socially acceptable manner. The meeting also considered the opportunities and constraints associated with the implementation of IWRM for large- to medium-size water projects. The participants were leading water experts from academic, national and international institutions, non-government organizations and the private sector, with special knowledge and expertise on water management in the Latin American region. Participation to the workshop was exclusively by invitation.

All the participants were invited in their personal capacities, and they did not represent or speak on behalf of their present or past institutions. The number of participants was restricted to 22 to ensure free, frank and in-depth discussions over three days. This special issue contains the papers that were prepared by some of the invited participants and formed the basis on which the initial discussions at the Rio de Janeiro Workshop took place.

There was unanimous agreement during the workshop that IWRM is a concept that is easy to talk about but has proved to be very hard to implement, even though IWRM is now a legal requirement in some Latin American countries, with penalties for non-compliance. Yet, there is no agreement at present as to how IWRM can be defined, or what is actually meant by IWRM, how it can be measured, or how the concept can be made operational. It would be fair to say that the attempts made thus far generally provide significant emphasis on integration, but not enough on how water resources can be optimally managed or how the expected societal objectives of water management can be better achieved. Nor has there been any serious discussion, let alone consensus, on what should be 'integrated' within the context of IWRM. An analysis of the existing literature on IWRM indicates that there are at least 42 different sets of issues that its proponents have recommended for integration, which is an impossible task because some of these issues are mutually exclusive. Furthermore, in terms of the knowledge and technology available at present, it is simply not feasible to integrate 42 different sets of issues, even if they were not mutually exclusive. Also, generally, the existing IWRM plans, or strategies, in Latin America have been strong on diagnosis, but weak on solutions and their eventual implementations. The situations are most likely to be similar in other regions of the world.

Because of the many very fundamental problems associated with the concept of IWRM and making it operational, the participants were hard pressed to identify even one good macro- or meso-scale IWRM project in Latin America which has been successfully operating for at least 10 years, and which has measurably improved the achievements of the goals and objectives of water projects which would not have occurred without the use of IWRM. This is in spite of the fact that the IWRM concept has been around for some half a century in one form or another. It was noted that at a scale of 1 to 100 (1 being no IWRM and 100 being full integration), it is difficult to find a single large water project anywhere in the region that can be given even a score of 30, based on medium- to long-term performance.

The papers prepared for the workshop and the resulting discussions clearly indicated that in terms of concept and implementation, IWRM at present has significantly more questions than answers. In addition, the focus of water planning and management needs to

shift from ‘means’ such as IWRM to ‘ends’ such as poverty alleviation, regional development and environmental conservation. The focus needs to re-shift as to how these “ends” can be best reached for the specific locations in different parts of the world, including Latin America, which invariably have their own set of physical, social, economic, environmental, institutional and legal conditions.

The opportunities and constraints for implementing a ‘means’ such as IWRM vary with geographical locations. This is not a special situation exclusively for IWRM: it is equally valid for any other ‘means’. If IWRM can deliver the ‘end’ best in a specific location, then this ‘means’ should be used. However, in a very heterogeneous world, one size does not fit all, and no one single ‘means’ is equally appropriate, or is the best solution, for all the countries of Latin America which have widely varying climatic, physical, social, economic and environmental boundary conditions. A logical and scientific approach requires that the ‘means’ or a solution that is most applicable and appropriate to reach the goals of a specific water management activity on a long-term basis, in a specific location, should be selected. An *a priori* decision that IWRM is the best means to best fulfill the objectives of water resources management is unlikely to be universally valid, especially when existing conceptual and institutional constraints are considered. In a real world, based on past experience, the solution-in-search-of-a-problem approach has seldom proved to be a universal solution.

Equally, as the Latin American countries make economic progress, and knowledge and technology advance, the most appropriate and cost-effective solutions are likely to vary with time. For example, what may have been a good solution for Brazil or Mexico two decades ago, may not be the best one now. Equally, what may be a good solution at present for any particular country, is unlikely to be so in 20 years’ time. In addition to the issue of scale noted earlier, time is also an important consideration, which regrettably has been almost totally neglected in the current IWRM discussions.

It is hoped that the papers of this special issue on the concept and implementation potentials of IWRM will stimulate regional as well as a global debate on how water can be better managed in an increasingly complex and interconnected world that is changing very rapidly, certainly at a much faster rate than ever before in history. Unfortunately, this type of debate has been conspicuous by its absence in an IWRM context.

The National Water Agency of Brazil and Instituto Pro-Ambiente have greatly served the water and development professions by organizing the workshop at Rio de Janeiro, which has raised many fundamental issues, considerations and constraints, in terms of the concept and implementation status of IWRM in a Latin American context. These issues, considerations and constraints now need to be seriously addressed and extensively debated to ensure a water-secure Latin America in the future. The workshop would not have been possible without the support of the Inter-American Development Bank and INWAP. However, the views expressed by all the authors in this publication are exclusively their own. They are not necessarily those of the sponsors or of the institutions with which the authors of the papers are affiliated.

Water is an important and critical development issue. It is also closely linked with other development sectors such as agriculture and energy, and social factors such as health, environment and quality of life. How it can best be managed in the future, with changing future conditions which are likely to be very different from the present or what has been witnessed in the past, needs significantly more attention than it is currently receiving. It is becoming increasingly apparent that tomorrow’s water problems can no longer be

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optimally managed with today's approaches, yesterday's mind-sets and the day- before- yesterday's experience. Business-as-usual can no longer be the solution. We need to consider 'business-unusual' approaches.

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