

A Critical View on Integrated Water Resources Management

Definition, Implementation and Linkage to Policy Reviewed

IWRM or Integrated Water Resources Management has attracted a lot of attention in recent years. It is a way to deliberately move away from fragmented approaches and has been defined as “a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems” (Global Water Partnership TEC Background Paper No. 4). The concept has been discussed in major international conferences throughout the 1990s and countries around the world are now preparing themselves for implementation in response to Paragraph 26 of the Johannesburg Plan of Implementation.

Thus, IWRM is often supposed to deal with the shortcomings associated with a fragmented approach in policies affecting the water resource and its management, which has been a prevailing characteristic of water management.

Stockholm Water Front asked leading experts to give their views. They are Professor Jan Lundqvist, University of Linköping, Sweden, and Chair of the Stockholm Water Symposium Scientific Programme Committee of the Stockholm International Water Institute; Dr. Roberto Lenton, Chair, Technical Committee, Global Water Partnership; Professor Ramaswamy R. Iyer, Former Secretary Water Resources, Government of India, and now Honorary Research Professor, Centre for Policy Research, New Delhi; and Dr. Eiman Karar, Department of Water Affairs & Forestry, South Africa. ■

Photo: Mats Lannerstad

Roberto Lenton:

IWRM Integration Needs Broad Interpretation

The concept of IWRM as put forward by GWP has received widespread support precisely because it *does* address the inter-connections among water, development and sustainability. But integration needs to be interpreted broadly – it is about integrating within human as well as natural systems. And much of the needed integration must take place outside the water box.

To really manage and develop water in ways that advance sustainable development, an IWRM approach must be viewed as a process of change in political, social, economic and administrative systems. But major initial reforms are not essential; easily implementable first steps are often sufficient to catalyze change.

Clearly, there has been progress. China, India, Thailand and Nicaragua, for example, refer to their policy reform processes as IWRM-based. Yemen has moved towards a more integrated approach as part of a series of economic, financial and administrative reforms.

But there are still serious bottlenecks. One of them is simply uncertainty about how to get started on a process of change. At

GWP, we are convinced that the process of creating an IWRM and water efficiency strategy can help catalyse change. That is why we have prepared a handbook for developing IWRM strategies that will be launched next month.

Clearly, sectoral policies have an important place in national decision making. The trick is to find a balance between a fully integrated approach that risks getting mired in complexity and an approach in which each sector blindly pursues its own narrowly-defined interests without looking at the larger impacts. In practice, striking this balance means policymakers need to be more “water aware” when it comes to economic policy and policy in water-related sectors.

Likewise, good management at the water basin level is a key aspect of an IWRM approach – and one which was embedded in the first Dublin principle and the Johannesburg Plan of Implementation. Importantly, water-related decisions made at basin levels must reinforce the achievement of broader national objectives.

Jan Lundqvist:

IWRM Not a Substitute for Sector Policies

The idea behind IWRM is sound and important. In my understanding of crucial water management challenges, co-ordination is key. A policy where the interrelationships between water, land and other physical resources are given due attention is perhaps most obvious. From a development and livelihood perspective, the link between social programmes, e.g. land tenure, regional development, income generation arrangements, etc. and a proper utilisation and stewardship of physical resources is crucial. A major challenge for IWRM thus refers to issues, which are conventionally outside the water sector. Unfortunately, it seems that many colleagues perceive IWRM as an approach that is principally different

from sector approaches, which are associated with fragmentation. But IWRM is not a substitute for sector policies and management. Well-organised sector policies and management structures, for example, in the irrigation sector are rather a necessary component of a well-functioning IWRM. The very complex management challenges in the broad water sector imply a division of tasks.

Discussions about IWRM typically include reference to the need for a national water plan and a complementary water budget, which provide guidance for water allocation between competing demands, i.e. between sectors, regions or between upstream-downstream areas. Aspects related to water development, allocation and supply are still relatively much more highlighted than water quality issues. Quantity and quality issues are still to a large extent dealt with separately. An integrated thinking, which follows water through the landscape and so-

ciety is conspicuous by its absence. We need policies which deal from “rain to drain”. Water-after-use should be an integral part of water resources management.

As far as I know, implementation of IWRM is progressing reasonably well in terms of formulation of IWRM plans as stipulated at the Johannesburg World Summit on Sustainable Development in 2002, although the quality and detail of these plans may differ significantly. What happens to the Efficiency plans is more uncertain. As usual, the proof is in the pudding. One of the critical factors with the National Plans refers to financial means to implement them. Since there is a high demand for investments for various programmes in society, it is crucial to show that investments in the water sector yield proper dividends. A combination of investments in concrete physical structures (in the various sectors) together with a credible institutional framework, at various levels in society, is required. ■

Ramaswamy R. Iyer: IWRM Carries the Seeds of Centralisation and Gigantism

I would like to offer some general reflections on the idea of IWRM and the need to widen and deepen our understanding of that concept.

The term “IWRM” and the related ideas of “basin planning” or “drainage basin management” certainly represent commendable advances on the earlier preoccupation with the planning of big projects and the dominance of engineering in that planning. However, those old orientations have not wholly disappeared. New refinements and nuances have been added to old ways of thinking, but those ways have not been radically transformed.

In the presentations on IWRM, reference is often made to the interactions among the different water-uses and the need to integrate them. That is true enough, but we need to go beyond that. Instead of starting from a partial or fragmented approach and then trying to integrate the fragments, there is need to start with a non-fragmented, inter-disciplinary (not just multi-disciplinary), holistic approach *ab initio*. Further, while both IWRM and basin planning are good well-meant terms, they carry within themselves the seeds of centralisation and gigantism, and fail to incorporate adequately the elements of decentralised, local, community-led planning and management, and of traditional knowledge and wisdom.

Consider the different aspects or dimensions of water: water as life-support and

therefore as basic need and as a human and animal right; water as an economic good or commodity in some uses; water as an integral part of the ecological system, sustaining it and being sustained by it; water as a sacred resource; water as an ineluctable component of cultures and civilisations. All that goes far beyond the current formulation that “water is an economic and social good” that has been accepted in IWRM.

Similarly, while the expression “drainage basin” is a technical term with a precise meaning, it is a very limited perception of one aspect of a river. To think of a river as a drain is of course technically correct, but it is a reductionist view that does not encompass the roles played by the great rivers of the world in the lives, cultures and civilisations of the countries concerned.

There is much stress on “capacity building” for IWRM. Certainly there is much that water users of all categories and indeed ordinary people, NGOs and the community, need to learn. However, water engineers, water planners, policy-makers, administrators, managers of systems, bureaucrats, technocrats, politicians, economists, agricultural scientists, and so on, – including people in the World Bank, United Nations agencies, donor organisations, GWP, World Water Council, and so on – also need to learn many things, and to recognise and respect the knowledge and wisdom that lie outside their own domains. ■

Eiman Karar: Responsible and Capable Decision Makers Needed

The definition of Integrated Water Resources Management to a large extent covers the main problems related to water, development and sustainability. However, the principle of subsidiarity needs to be lifted here to ensure that decisions are made by responsible and equally capable water user.

This should be done without compromising the critical marginal users such as small scale food gardens. The user pays principle has been well articulated but goes against the grain of equity particularly when large paying users should have more say when decisions are made.

The implementation of IWRM in South Africa is being possible through the very progressive National Water Act revised in 1998. With the dawn of democracy in South Africa, the Act is based on principles of equity, representivity and sustainability in decision making. Like the case in any new democracy, levelling the playing field is an act of empowerment and upliftment of the poor to internalise long-term benefit when immediate pressing needs must be addressed first. It is critical therefore to link the provision of water supply service to the management of water resources. Progress therefore has been slow while the ambitions desired are being transformed, and while representative water management institutions are still to be realised. The co-ordination of land and water management is to be operationalised.

It is in the Constitution of the Republic of South Africa that all government departments and spheres of government must co-operate. Therefore there are numerous efforts to co-ordinate policies between the different sectors. A bright example is the policy on mainstreaming government support to resource poor farmers, a policy which was drawn up and endorsed by at least 10 different line functionaries. Worth mentioning here also is the alignment between national and local water and land development planning whereby local catchment management strategies are mandated to be in agreement with the National Water Resource Strategy as well as being aligned with the Integrated Development Plans dealing with transport, health, urban and rural development, to mention few. ■