



## The Dublin principles revisited for WSS

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RECENT INTERNATIONAL GATHERINGS such as the second world water forum in the Hague continue to give international backing to Integrated Water Resource Management (IWRM) as the holistic framework within which the world's water should be managed. Vision 21 identifies IWRM as a crucial challenge to the drinking water supply and sanitation (WSS) sub-sector (WSSCC, 2000). However, while at the international level agreements are signed and consensus reached, at the local level, and within water sub-sectors<sup>1</sup> there continues to be much confusion as to what exactly the new paradigm implies, and how it should be addressed. This paper outlines a methodology for participatory self assessment of WSS projects, that by using the 1992 Dublin principles (see below) as a basis, helps to initiate a process of inclusion of IWRM principles within WSS projects.

### The Dublin principles

1. *Freshwater is a finite and vulnerable resource, essential to sustain life, development and the environment*
2. *Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels*
3. *Women play a central role in the provision, management and safeguarding of water*
4. *Water has an economic value in all its competing uses and should be recognised as an economic good*

Underlying the methodology is a conceptual distinction between two approaches to IWRM. On the one hand 'light IWRM' concerns the application to sub-sector projects of the Dublin principles, while 'full IWRM' concerns wholly integrated activities such as catchment management plans.

The approach is based on experience from a comparative study of the degree of integration of IWRM principles into WSS projects, work carried out by IRC and partner organisations in eleven projects in seven countries: Zambia, South Africa, Ghana, Nepal, Cambodia, India, and Colombia (Visscher et al, 1999). A brief outline of the approach and results used in this work is presented in the next two sections.

### Approach

An initial workshop was held in the Netherlands in 1996. Staff from the case-study projects developed a self assessment tool based on an extended version of the Dublin principles that they felt were relevant to their projects. The participants then developed a number of guiding questions and indicators relevant to each principle, which together formed an assessment tool. In addition the participants were given training in participatory techniques with which to carry out the assessment.

The list of key principles identified was as follows:

- Water source and catchment conservation and protection are essential
- Water allocation should be agreed between stakeholders within a national framework
- Management needs to be taken care of at the lowest appropriate level
- Capacity building is the key to sustainability
- Involvement of all stakeholders is required
- Efficient water use is essential and often an important 'source' in itself
- Water should be treated as having an economic and social value
- Striking a gender balance is essential

Examples of guiding questions for principle 1 included: "Has water source and catchment protection been identified as a need presently or in the longer term? (Why? By whom? When? How?); and "Are catchment areas negatively influenced by any activities"; indicators include "reduction in flow (volume/water levels) over the last five to ten years", or "deterioration of water quality". For principle two questions included "what water allocation mechanisms exist, who is consulted and who makes decisions?", and "what legal framework and traditional practices for water resource allocation exist? Are they effective?", an example indicator is "accessibility of information to stakeholders (expressed as a percentage who feel they do or don't have good access)". In all a total of thirty four guiding questions were developed for the eight principles.

Following the initial workshop in the Hague the participants returned to their projects, where they implemented the assessment over a period of approximately six months. The assessment involved as wide as possible a selection of

stakeholders from national level support agencies to users, and used techniques ranging from semi-structured interviews to village mapping. A series of national reports were then prepared, and these were presented at a synthesis workshop held in the Hague in 1997, from which a final report was prepared. Key findings relating to the assessment are presented in the next section.

## Results

In general it was found that while IWRM principles are internationally accepted they are not yet truly applied to WSS projects. While many national governments are addressing the issue of IWRM through the development of legislative frameworks, movement towards practical application remains slow. WSS continues to be poorly integrated into wider IWRM strategies, while principles of IWRM are only partially present in WSS programmes.

Assessment findings as they related to each of the eight IWRM principles are synthesised below

### Key findings

- *Water source and catchment conservation is gaining recognition but requires further work.*
- *True stakeholder involvement in water allocation decision making remains limited*
- *The framework to allow management at the lowest appropriate level is often not available*
- *Capacity building is promoted but not at all levels, and its effectiveness is not monitored.*
- *Stakeholder involvement is growing, but it is still too limited and too narrow in focus.*
- *Efficient water use is gaining attention but requires much higher emphasis.*
- *Water is increasingly viewed as having an economic and social value.*
- *Striking a gender balance is often taken as enhancing women's involvement.*

Water source and catchment conservation are increasing, but the necessary frameworks to ensure communication and cooperation between sectors and levels are often lacking. Within WSS projects the focus continues to be on limited interventions close to the water source.

While conceptually widely accepted, stakeholder, and user involvement remains limited. The reality of conflict between competing uses and users is often glossed over. Where stakeholders are involved it is frequently at an information, as opposed to decision making level. Good, appropriately presented hydrological information is essential to informed decision making, but is seldom available.

The lack of clear legal frameworks enshrining rights and responsibilities within the decentralisation process often causes confusion. While community-based approaches are now accepted as the norm, the necessary underpinning capacity seldom exists in support agencies.

Proper monitoring of the effectiveness of capacity building programmes is essential to their success. While widely promoted, capacity building programmes frequently pay insufficient attention to the lower and intermediate levels within decentralised support agencies – with the result that they are unable to fulfil their role in facilitating user decision making.

Community involvement in the management of WSS systems continues to show promise, however communities frequently remain uninterested in becoming involved in wider IWRM because of high transaction costs and lack of genuine decision making powers.

Water use efficiency and demand management is gaining attention, however guidance is often lacking in how to integrate it into projects. Water is generally valued most highly where it is scarcest, or where tariff structures make wasting it expensive.

The principle of paying for water is now widely accepted and many projects are introducing water user charges. However the role of water as a social good needs to be kept in view while planning water charges, and the rights of vulnerable groups protected.

A wider understanding of gender as encompassing other important aspects of community dynamics such as age, wealth, class, cast etc. is missing. Where projects used a gender specific approach they concentrated solely on the degree of involvement of women. This was found to be low, particularly within the staff of support agencies.

The next section briefly discusses the usefulness of the assessment methodology itself in helping to start the process of wider integration of IWRM principles into the case study projects.

### Utility of the approach

The self assessment exercise highlighted wide gaps between the rhetoric and practice of mainstreaming IWRM principles into WSS projects. However, all those who took part in the exercise agreed that it was in itself a valuable first step towards mainstreaming. The use of self as opposed to external assessment was essential in making the exercise part of the process of awareness raising and integration of IWRM principles into the projects.

The initial workshop at which the list of key principles, guiding questions, and indicators were developed allowed a quick introduction to IWRM theory to be delivered and then built on as a learning activity. It clarified to project level personnel what the rather abstract sounding principles of IWRM meant to *them and their projects* and the practical steps they could take to ensuring their inclusion within project frameworks. Perhaps equally importantly it allowed them to identify which aspects were outside their

control – such as catchment level planning in some cases, or a national policy on cost recovery - and therefore of less direct interest.

The following and final section sets out a modified framework of key principles, and discusses how they could be used within a philosophy of ‘light IWRM’ within the WSS sector.

### **Towards a tool for participatory benchmarking of IWRM in WSS projects**

Central to this section is the idea of IWRM as a philosophical framework, rather than a set of activities. We refer to this as ‘light IWRM’, and it concentrates on the application of general IWRM principles within water sub-sectors, using methods such as that described in the previous sections. ‘Full IWRM’ by way of contrast deals with activities such as catchment management projects, where the objective from the outset is focussed on developing a holistic management plan for all the water resources of a given community or geographic area. We feel that this division between full and light reflects the reality experienced by many people working in various water sub-sectors, who are keen to take a more holistic approach, but unclear as to how to go about it. We believe that the implementation of light IWRM will facilitate the eventual implementation of full IWRM as and when the necessary enabling environment comes into existence.

The list of principles developed in the original project contained some overlap. Nonetheless the findings of the assessment and current thinking suggest that there is a need to extend the original list of four Dublin principles, and to make them relevant to the WSS sub-sector. Below is a modified list of six principles that provide a comprehensive framework relevant to the WSS sub-sector.

#### **IWRM principles for DWSS**

1. *Catchment management and source protection are essential to ensuring sustainability of supply*
2. *Water use efficiency and demand management must be addressed to minimise the need for new source development*
3. *Multiple uses of water should be acknowledged and encouraged*
4. *All stakeholders should be involved in decision making, but particular emphasis should be put on the active participation of users*
5. *Gender and equity issues must be addressed throughout the project cycle*
6. *Water provision should be priced so as to discourage wasteful use, while ensuring the right to access of a necessary minimum for all*

The list is specifically focussed on the water and sanitation sector, and at the project and the system level. As such it aims to help staff of sub-sector organizations to identify how they can best incorporate the relevant IWRM principles into their own projects and systems, rather than worrying about more abstract policy or regulatory matters that are outside their ambit of influence.

The first principle underlines the need to be sure that any water supply is sustainable – without suitable management of the catchment and source there is a danger of the supply failing. In addition it encompasses the particularly important issue for water and sanitation projects that inadequate or inappropriate sanitation does not lead to pollution of the source (or some other potential users source).

The second principal addresses the issue of water use efficiency and demand management. Both of these relate to accepting waters finite nature, and the need to make each drop go as far as possible. Linked with principle three this principle covers issues such as potential for re-use of waste water for productive purposes.

Principle three comes from an increasing realisation that the water and sanitation sector needs to come to terms with the multiple uses to which in reality almost all ‘drinking water supplies’ are put – for example a recent FAO publication estimates that even in urban areas 40 per cent of land is dedicated to food production, much of it using ‘drinking water’ (FAO, 2000). Market gardening, domestic livestock, laundry services and micro-industry are all potential ‘productive’ uses that will typically compete for some of the resource (Lovell, 2000). Addressing this issue means both designing supplies with multiple uses in mind, but also identifying potential alternative sources (rainwater harvesting, wastewater reuse etc.).

Principle four dissociates the mode of participation of users from the regulatory framework within which it takes place. While the ideal is full control of the decision making apparatus by users this is seldom achieved, and the next best option is therefore the active participation of users in decision making by support agencies.

Principle five represents the change in emphasis and broadening of interest from the original Dublin declaration, to include poverty and equity issues. It emphasises that burdens and benefits are shared equally between men and women, necessitating particular efforts to enable women to claim their right in decision making.

Finally, the sixth principle reflects the underlying reason for treating water as an economic good (to ensure efficient use, and avoid wastage) while equally addressing the social dimension acknowledging people’s right to receive the minimum necessary to satisfy drinking and sanitary requirements.

These six principles provide a framework to which are added leading questions and key indicators relevant to country and local specificities. The questions and indicators should be established and agreed upon by all stakeholders in a participatory manner as part of the learning process. It is the complete list of questions and

indicators that then becomes the monitoring or benchmarking tool, by whose application a project starts to take account of IWRM principles. To be successful this activity should be carried, out right from the start, by as wide a range of stakeholders as possible.

### Closing remarks

While this tool has been specifically developed for use within the water and sanitation sector, the approach is generic and could be used within any other water sub-sector. Lists of principles could therefore be developed to reflect the requirements of the water for food/irrigation or water for nature sub-sectors.

We believe that IWRM is a philosophy that is based on the development of networks, that no one can be an expert in all aspects, and that by the efforts of each sub-sector to try to implement IWRM principles within its own projects the need to involve and include others will quickly become clear. So for instance the suggestion that multiple uses of water must be addressed will, if dealt with properly, entail the involvement of other water specialists (small scale irrigation etc.) to make the most of it. A proper focus on source protection will lead to a demand for catchment level planning bodies as those managing the source come to realise that use by others may impact on the reliability of their resource and so on. Hence, even in the absence of an overarching 'full IWRM' framework, the application of 'light IWRM' should in time lead to ever greater application of the IWRM philosophy to the sector as a whole.

<sup>1</sup> "Water sub-sectors" include "water and sanitation", "irrigation and drainage". The term is used to differentiate these from the "water sector" as a whole.

### References

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