

Water, Sanitation and Hygiene and Integrated Water Resources Management: integration at local level

Background

Integrated Water Resources Management (IWRM) has emerged during the last decade as a response to the 'water crisis': the widespread concern that the planet's freshwater resources are coming under increasing pressure from rising populations, growing demands for water and increasing pollution.

However, many organisations in the WASH sector regard IWRM as something far removed from the day-to-day reality of their work. Frequently heard arguments for this include: "the domestic sector only uses a relatively small amount of water" or "IWRM discussions deal with river basin level issues, while we work at the local level".

Nonetheless, an increasing number of examples from around the world show that these arguments are not justified and that poor water resource management is impacting on WASH service delivery. In India, the boom in development of boreholes for irrigation is leading to falling groundwater levels and failure of village wells, while in Colombia the discharge of untreated wastewater is leading to problems of quality for downstream water supply services.

While it is often true that the domestic sector takes a relatively small share of *total* available water resources, the requirements of domestic users for high quality and absolute reliability mean that at critical times of year domestic use can become the largest user. Equally, urban populations can represent an important local demand that may conflict with the requirements of farmers and environment in the rural hinterland. Increases in sanitation services delivery often lead to increased pollution if wastewater is not properly managed.

IWRM is not only about allocating water between different sectors, but also about promoting the local use of water for multiple purposes.

As these examples show, many of the most pressing water resources issues occur at the local level: the village, district, municipality or sub-catchment. However, to date much of the focus for IWRM

related effort has been focused larger scale issues: river basin, or transboundary water management.



Water supply systems are often used for a range of productive purposes, as here in South Africa, and need to be considered in WASH planning

The challenge therefore is to bridge the gap between these rather different scales: so that basin level IWRM plans include the reality of small-scale users' needs; while plans for improved WASH services are sustainable within a wider water resource context.

Our approach and tools

IRC works with partners in strengthening integrated local water governance, by developing tools and methodologies for integrating WASH into IWRM at the local level. These include:

- **Facilitation of stakeholder dialogues:** integrating WASH into IWRM requires a dialogue between WASH sector actors and other users. We develop tools and capacities for facilitation of such dialogues, such as Learning Alliances.
- **Approaches and tools for integrated planning:** A range of tools for village and intermediate level planning of integrated water resource management and WASH service delivery are being developed

and tested, and include aspects such as water resources assessments, visioning and scenario-based planning.

- **Multiple Use Services (MUS) approaches:** IRC is involved in developing tools and approaches for multiple-use services, which support water for uses as backyard gardening, livestock watering and for home-based industries. We see a MUS approach as being critical in developing local level *demand* for improved IWRM.
- **Sanitation and livelihoods:** sanitation also has a livelihoods component, either in the form of reuse of wastewater, or through the use of dried faecal matter and urine in agriculture. These in turn, have implications for water resources management, often at the level of urban catchment. IRC is developing tools for planning of sanitation from such a perspective.



Wastewater is an important source of water for farmers, but may also pose health and environmental risk, as here in Bangladesh

Examples of past and ongoing work

These and other tools and methodologies are being developed and tested in a number of action-research projects.

SWITCH. The SWITCH project aims to achieve integrated water management in urban areas. Amongst others, it looks at applying IWRM principles in the context or urban catchments in a number of cities, and works with a range of city level

actors to achieve this, using a learning alliance approach. www.switchurbanwater.eu

The **WASPA** project analyses the links between sanitation development and management and reuse of wastewater in small towns in Bangladesh and Sri Lanka. It facilitates learning alliances in these towns to come to more integrated planning for sanitation and wastewater management.

www.iwmi.cgiar.org/waspa/WASPAprojinfo.htm

The Euro-Mediterranean Regional Programme for Local Water Management (**EMPOWERS**) has been working in Egypt, Jordan and the West Bank and Gaza to develop tools and approaches for improved local water governance. (www.empowers.info)

The **NEGOWAT** project looks at stakeholder based solutions to rural/urban conflict over water resources in Bolivia and India (Tamil Nadu). (www.negowat.org)

The **LoGo Water** project examined the role of Local Governments in IWRM in Europe and Southern Africa, and developed methods for local governments to apply IWRM principles in their work, including in water and sanitation services delivery. www.iclei-europe.org/index.php?id=logowater

The **Multiple Use Systems (MUS)** project developed models and tools for multiple-use services delivery. It did so by analysing multiple-use services in 8 countries around the globe. (www.musproject.net).

In addition, IRC provides on-demand **training** and **advisory services** on this topic to a range of clients. For example, we supported WaterAid in developing its IWRM strategy.

Building alliances - join our effort

In these and other projects, IRC works closely with local partners, as well as through global alliances, such as the Multiple Use Services Group, www.musgroup.net.

IRC plans to scale up its effort in this field through action-research, training and advisory projects. IRC is looking for partners who would like to join these efforts, and expand our alliances. For more information, please contact Stef Smits (smits@irc.nl).

To find out more about IRC and our work in local level Integrated Water Resource Management, visit our website at www.irc.nl/page/112