

Case study

Uganda: Progress towards IWRM (#382)

Brief summary

This case study describes the Ugandan experience of forming and implementing the principles of integrated water resources management (IWRM). It helps to illustrate not only the often discussed benefits of the approach, but also the harsher realities of effecting changes in an environment with limited capacity to absorb those changes. While there can be little doubt that IWRM remains the best route to sustainable water management, its introduction requires time and patience. IWRM is not a story that has a beginning, middle and end based on a 5 year project time span. It is a long-term, ongoing process.

Background & Problems

Uganda is a low-income landlocked East African country with a per capita income of about US\$330 and an estimated population of 28 million. The economy is largely dependent on agriculture, which accounts for 43% of GDP and 90% of total exports. In addition, 80% of Ugandans derive their livelihoods from agriculture. In terms of human development, Uganda is ranked 158th out of 174 countries world-wide. Currently, it is estimated that 35% of Ugandans live on less than a dollar a day, and are unable to meet their basic requirements.

Water is life and provision of safe and adequate drinking water in Uganda is a fundamental human right as enshrined in the Constitution of 1995. However, only 61% and 68% of the population of Uganda has access to safe drinking water in the rural and urban areas respectively¹. Water also contributes directly to socio-economic development of the country and is essential for energy production, irrigation, livestock, fishing, mining, wildlife, industries, aquaculture and maintaining the environment. Uganda's quest for economic and social development is therefore increasingly related to water. Freshwater is thus, a strategic resource, which is vital for sustaining life, promoting development and maintaining the environment.

Although Uganda is considered well endowed with water resources, these resources exhibit both seasonal and spatial variability. Thus, some places have too little water during certain periods of the year while others have too much water. Both of these situations often result in disasters in form of droughts and floods in different areas of the country. The country has both wet and semi-arid areas. It also has significant differences between the wet and dry years, and considerable variations in the onset of seasons.

Rapid population growth, deforestation, increased agricultural production; hydropower generation, urbanization and industrialization are leading to depletion and degradation of available water resources. In addition to increased claims on the nation's water resources

¹ According to the water sector performance report, 2006

due to the high population growth rate, the current water infrastructure and the necessity to deal with the recent effects of climatic changes exacerbate this situation even further. Water shortages, water quality deterioration, flood and drought impacts are some of the problems, which require urgent attention and action.

The water resources of Uganda play an important role in the country's overall development efforts. The water supply sector is under expansion and small scale irrigation is being promoted and may in the future be of increased importance. The power supply of Uganda is almost totally dependent on hydropower. Sewerage and sanitation service requirements increase in step with improvements in water supplies and have important health implications. Fishing in lakes and rivers is a major component of the country's economy, and fish ponds along water courses are fast increasing in importance and numbers. Development of tourism is a high priority area and is dependent on the natural beauty and quality of the environment. Improved water supply and sanitation services have major social, economic and health impacts on life in general. Some of the benefits from water supply and sanitation also have a positive effect on investments in other sectors, such as education and industry.

Potential conflicts are developing between upstream and downstream users. Locally, upstream riparian may use the water in ways, which, for instance, make the water quality unsuitable for the downstream users. Examples can be found where sewage is discharged upstream of points where water for human consumption is collected and used untreated. Uganda fully lies in the River Nile basin and all Uganda's surface water resources are part and parcel of the transboundary watershed. The projected demands of the riparian countries will exceed the available resources and there are no formal agreements for protection of the water quality by upstream countries and its equitable utilisation, which may limit Uganda's unhindered access and use of water resources within her territorial boundaries.

Water resources management at the beginning of the 1980s faced a number of challenges. The existing surface water monitoring network had been destroyed due to the civil strife in the country and capacity for water resources assessment was almost non-existent.

Action Taken: Uganda's Response

Water Action Plan

The situation has been improving significantly from the early 1990s with the preparation of the Water Action Plan (WAP) 1994, which has laid the foundations for sustainable water resources development and management in Uganda. The WAP was a comprehensive set of documents that detailed the activities associated with water resources development and management. It defined priority action areas to revitalize the water resources management sub-sector, including:

- Strengthening of the water resources monitoring network
- Establishing water resources databases
- Initiation of assessment services, and

- Establishment of a water permits unit.

WAP also provided the Government of Uganda with guidelines and strategies for the protection of and development of Uganda's water resources and a structure for their management at national, district and local levels.

Progress since WAP

Even though WAP more than 10 years have elapsed since the onset of WAP, the recommendations it contained have had a direct influence on several major water resources management programmes such as the Water Resources Assessment Project, WRAP (1996-2000), the Sector Programme Support, SPS (1997), and Support to Water Resources Management Department, SWRMD (200-2003).

More importantly, as a follow up to the recommendations of the WAP, government enacted a Water Statute (1995) and gazetted a National Water Policy (1999), thus putting in place a comprehensive enabling legal and institutional framework for water resources management in the country. The National Environment Statute was also enacted in 1995 thus providing a framework for co-ordinated and sound management of the environment including environmental impact assessment of water resources related projects.

Despite the above progress, a lot still remains to be done in the sub-sector to ensure that the water resources of the country are sustainably developed and managed. There is, therefore, a need not only to consolidate the achievements but also to address the challenges imposed by the emerging issues: The National Water Development report (MWLE, 2004) notes that the Government of Uganda has, since the preparation of WAP in 1994, has been vigorously promoting IWRM as an integral part of its strategy to ensure sustainable water resources management and development. An enabling legal and institutional framework has been established, availability of water resources data and information for use in planning of water resources projects has been improved, a regulatory framework to control water abstraction and the pollution of water bodies has been established. In 2003 the Directorate of Water Development initiated the Water Sector Program Support, WSPS 2 (2003-2007), which aimed to develop a cadre of highly trained and motivated staff.

The scale of the ongoing reforms and the required support is massive.

Going to find a way to put the following in a more positive light

However, despite these achievements, a number of key aspects of IWRM have not been implemented. Management and development of water resources continue to be done by different sectors of government located in different ministries without any coordination. For example, the Ministry of Energy and Environment is responsible for drinking water supplies and sanitation, for water production and water for the environment, Ministry of Tourism is responsible for water for recreation and tourism etc. Planning of water continues to be carried out on a sector basis and there is no holistic Approach to water resources development and use.

Furthermore, water resources planning and decision making continues to be done without the involvement of users and stakeholders; water resources management continues to be a central government function without the decentralisation of decision-making at the lowest appropriate level; institutional mechanisms for resolving water conflicts have not been fully utilised and hence water conflicts have continued unabated; and economic, social and environmental values of water have not been determined – thus affecting effective water allocation.

Lack of an operational IWRM framework due to the failure to expand water and poverty focus beyond drinking water and sanitation makes it difficult to reap the benefits of IWRM. For example, there is a lack of multi-purpose infrastructure in Uganda due to this problem.

The Identification and Preparation Study for the Joint Water & Sanitation Sector Programme Support for the period 2008-2012 (DWD, 2006) observes that priorities are skewed towards domestic service provision, at the expense of economic aspects and more long term sustainability aspects, such as operation and maintenance and water resources management. Furthermore, Uganda's strategic development is focussed on hydropower production, improvement of agricultural production (through the provision of water for production), domestic water supply, improvement of water transport on lakes and rivers.