



Need for reform of water resources management in Uganda

Callist Tindimugaya, Uganda

UGANDA'S FRESHWATER IS considered a key strategic resource which is vital for sustaining life, promoting development and maintaining the environment. Rapid population growth, increased agricultural production, urbanisation and industrialisation are leading to depletion and degradation of available water resources. Although Uganda is usually considered to be well endowed with water resources, these water resources exhibit both seasonal and spatial variability. The country encompasses both humid and semi-arid areas and there are not only significant differences between wet and dry years, but also considerable variations in the onset of seasons.

Water of adequate quantity and good quality is a key resource in the socio-economic fabric of Uganda and is an important factor in the development potential of the country. The water supply sector is undergoing rapid expansion with respect to rural and urban water supply and water for production. Small-scale irrigation is being promoted and will be of increased importance in the Plan for Modernization of Agriculture while water supply for livestock in pastoral areas is one of the Government priority areas. Sewerage and sanitation requirements increase in step with improvements in water supply and have significant public health implications. Fishing in lakes and rivers is a major component of the country's economy and fish ponds built alongside water courses are increasing in number and importance. In the energy sector, Uganda is almost totally dependent on hydropower for electricity generation. In the international context, the whole of Uganda's water resources is part of the Nile Basin and the country thus has an interest in obtaining its equitable share of this resources for socio-economic development.

New developments in the international arena continue to influence policy development in Uganda and often lead to changes in ways government conducts its business. The recent policies of decentralized service delivery and management of resources, promotion of private sector participation, increased need for stakeholder participation and environmental management, call for a change in the way water resources management functions are performed.

While efforts are being put into addressing all the above concerns, the current legal and institutional framework, and strategies for water resources management are inadequate to address all of them in an integrated manner. There is therefore a need for development of a policy framework that promotes holistic approach to water resources management development in the country so as to

ensure availability of water of adequate quantity and good quality for the present and future generation of Uganda.

Key water resources related issues

As earlier mentioned, a number of key water resources related issues have either been inadequately addressed or have emerged recently. These need to be addressed if sustainable and integrated water resources management is to be realised. These issues include:

(i) Uganda's Participation in Regional Water Resources Management Programmes and Initiatives

By virtue of her location, Uganda is both a lower and upper riparian in the Nile Basin. In relation to Egypt and Sudan, Uganda is an upper riparian and has an interest in the use of water resources within its territory for social and economic benefit. In relation to Kenya, Tanzania, Rwanda, Burundi and Zaire, Uganda is a lower riparian and has an interest in uninterrupted flow and conservation of water quality. Uganda is currently participating in international, regional and basin wide programmes namely the Nile Basin Initiative (NBI), Lake Victoria Environmental Management Project (LVEMP), Lake Victoria Water Resources Project, the Inter-Governmental Authority for Development (IGAD), the Lake Victoria Fisheries Organisation (LVFO) and Lake Victoria Development Programme. A transboundary water resources strategy therefore needs to be developed that will guide Uganda's participation in regional water resources management initiatives in order to obtain its equitable share of the Nile Basin water resources.

(ii) Decentralisation of Water Resources Management

The Constitution, Local Government Act and the Water Statute specify the roles and responsibilities of the Central and Local Governments with respect to water resources management. While central government will retain overall responsibility for water resources management, the management of these resources requires actions and decisions to be taken at the most appropriate level. Furthermore, although all of the country's water resources form part of the Nile Basin, there may be advantages in managing water resources nationally at the level of smaller river catchments. The National Water Policy also allows for the decentralization of those functions that can best be performed at lower levels. A strategy for decentralisation of water resources management therefore needs to be developed taking into consideration the need for Catchment Management Au-

thorities, capacity building in the local governments (districts) and district level institutional arrangements. However, considering that water resources management is not usually appreciated, there is concern as to whether additional institutional structures will receive adequate funding and whether indeed water resources management functions will be prioritized in the local governments.

(iii) Mainstreaming of Gender Issues

One of the principles that has evolved from the Copenhagen-Dublin-Rio round of conferences is that women should play a central role in the provision, management and safeguarding of water. Although women are active in providing and using water it appears that they are far less involved in managing water resources. Despite the gender sensitive policies of the Government, women are still not adequately included in the decision-making processes although they often have a unique and valuable perspective on the efficient use of water resources. Gender concerns therefore need to be mainstreamed in water resources management activities so that women are involved in decision-making at community level and other higher levels of government.

(iv) Harmonisation and Amendment of Regulatory Legislation

Government has put in place a water use and waste discharge regulatory framework involving issuance of water use and waste discharge rights to various water users and waste dischargers. However, the current legislation in form of the Water Statute and National Environmental Statute both contain provisions relating to pollution control, which need to be harmonised. The present legislation also does not provide adequate regulation for non-point sources of pollution, pollution from municipal waste and waste discharge to groundwater. The pollution standards contained in the Environmental Statute are considered by some to be too stringent, acting as a disincentive to industrial development and thus need to be reviewed. In addition, regulations for the issuing of permits for water abstraction, construction of hydraulic works, drilling works, waste discharge and easement certificates have been issued under the provisions of the Water Statute but challenges are being experienced in implementing and enforcing them. The Water Statute and Regulations therefore need to be amended in order to remove the implementation bottlenecks.

Furthermore, the existing legal provisions concerning land use and ownership of water facilities need to be reviewed to ensure that all aspects of water rights are clearly defined and adequately safeguarded. Areas that need to be addressed are the granting of water rights to local governments, rights of privately owned water facilities within water authority controlled service areas, the process of dispute resolution over water rights, and legislation governing catchment protection and pollution of water sources.

(v) Growth of the Industrial Sector and the Need for Industrial and Municipal Waste Management

Uganda is primarily an agrarian country but government is committed to the process of industrialization in an effort to improve per capita income and living standards. In recent years the industrial sector has grown in significance. However, most industries have not installed adequate wastewater treatment facilities and in certain areas industrial pollution is becoming a significant environmental problem. There is therefore a need for an assessment of the existing setup for industrial and municipal waste management and the development of an organizational framework that will ensure that industrial and municipal waste discharges are effectively monitored, controlled, and managed.

(vi) Hydropower Development

Hydropower constitutes Uganda's greatest energy resource with an estimated potential of over 4,000MW concentrated along the River Nile. Currently the country depends on a single source on the Nile at the Owen Falls where capacity has been increased from 180MW to 380MW. Plans are underway to develop more hydro power stations on the Nile and other non-Nile rivers. It is therefore a matter of national importance that adequate water resources are available for Uganda's hydropower development programme. There is a need to assess how this can be achieved without infringing on water rights of other riparian countries and local users.

(vii) The Water Policy Committee

The Water Policy Committee was established under the Water Statute with overall responsibility for developing national policies, standards and priorities, and for coordinating revisions to legislation and other sector ministries' plans and projects which affect water resources. The committee has so far not actively carried out its mandated role and there is thus a need to review its role and redefine its functions so that it can perform more effectively.

(viii) Impact of poor and inadequate climatic data on water resources assessments

Climatic data is very important in water resources management in general and for assessment studies in particular but the existing meteorological network being maintained by the Meteorology Department is inadequate. There is therefore a need to address the issue of producing and disseminating climatological data with a wide coverage and of good quality so that it can be relied upon for water resources assessment studies.

(ix) Integration of Land and Water Resources Management

The management of water resources is inextricably linked with the management of land and vegetation since the latter determines to a large extent the quality and quantity of the available water resources. There is therefore a need to

develop a framework for integrated land and water resources management in the country.

(x) Implications of the recommendations of the Rural Water and Sanitation, Urban Water and Sanitation and Water for Production reform studies on water resources management

Reform studies have been carried out for Rural Water and Sanitation, Urban Water and Sanitation and Water for Production. These studies have produced strategies for provision of adequate safe drinking water to the rural and urban populations of Uganda and water for increasing production. These strategies have implications on water resources management and thus call for reform of the water resources management sector to cope with the recommendations.

(xi) Capacity building

Capacity building for water resources management at the national level has been the main focus of Government over the last few years but more is still required in order to adequately address emerging water resources related issues. The biggest challenge however remains that of building the capacity of the local governments and the communities to perform water resources management functions. There is therefore a need to develop a comprehensive capacity building plan that will ensure that water resources management functions both at the national and district level are adequately performed. This will call for increased funding and good will from Government policy makers and donors.

Conclusions

Reform of the Water Resources Management sector is needed for providing Uganda Government with a clear strategy for management of the country's water resources, which are under increasing pressure from various factors. The current legal and institutional framework, and strategies for water resources management are inadequate to address all the water resources related issues in an integrated manner. These need to be reviewed and updated so that the country can effectively fulfil its mission of promoting and ensuring the rational and sustainable utilisation and development, and the effective management and safe-

guard of water resources, for social and economic welfare and development as well as the equitable sharing and adequate protection of trans-boundary water resources.

The following issues are thus necessary for improved Water Resources Management in Uganda:

- Strategy for management of national and international shared water resources
- Updated legal framework for management of water resources
- An institutional framework for policy making, planning and coordination of water resources management at various levels
- A long term capacity building programme for water resources management
- A strategy and action plan to promote the active participation of various stakeholders in water resources management
- A strategic investment plan for water resources management over the next 15 years.

The above issues are being addressed under the Water Resources Management Reform Study that started in July 2003 and is due for completion in March 2004. It is hoped that the country will then be able to effectively practice internationally agreed principles of Integrated Water Resources Management.

References

- ¹Terms of Reference for the Water Resources Management Reform Study, 2002: Prepared by the Directorate of Water Development, Ministry of Water, Lands and Environment, Uganda.
- ²Uganda Water Action Plan, 1995: Report to the Directorate of Water Development, Ministry of Natural Resources, Uganda.

CALLIST TINDIMUGAYA, Principal Hydrogeologist, Directorate of Water Development, Ministry of Water, Lands and Environment P.O. Box 19 Entebbe, Uganda
Email: ctindi.wrmd@dwd.co.ug
