

Burundi, Rwanda & Congo

Institutional Arrangements

Rwanda

In Rwanda, the constitutional and organizational functions for water resources management is the mandate of the Ministry of Lands, Environment, Forests, Water and Mines (MINITERE). The Ministry has a small unit, which used to be the Directorate for Water and Sanitation that takes care of the constitutional function. The unit is also responsible for the planning of drinking water supply and sanitary services, however the establishment of the Rwanda Water and Sewerage Corporation in 2008, will limit their mandate to water sector policies and water resources management.

Table 1.1 Key institutions involved in the water sector of Rwanda

| Constitutional function | Organisational function | Operational function |
|---|--|--|
| Ministry of Lands, Environment, Forests, Water and Mines (MINITERE) | Rwanda Environmental Management Authority (REMA) | *Electrogaz-Rwanda *(Rwanda Water and Sewerage Corporation (RWASCO)) |
| Ministry of Agriculture and Livestock (MINAGRI) | | Project Management Units of rural and water resources development projects *Local Water Users Organizations |
| Ministry of Infrastructure (MININFRA) | Rwanda Utilities Regulatory Agency (RURA) | |
| | (National Energy Development Agency (NEDA)) | (Rwanda Energy Corporation (RECO)) |
| Ministry of Economy and Finance (MINECOFIN) | | |
| Ministry of Health (MINISANTE) | | |
| Ministry of Local Affairs (MINALOC) | Regional Administration | District Administration |

MINITERE has established the Rwanda Environment Management Authority (REMA) to supervise that public and private sector institutions take care of environmental protection aspects (respect of standards, rules and regulations, etc.). REMA reviews and approves the EIAs and conducts environmental audits to supervise that mitigating measures are implemented.

The Ministry of Infrastructure (MINIFRA) is responsible for the constitutional functions for public utilities, that cover the energy and water and sanitation services sub sectors. MINIFRA has established the Rwanda Utilities Regulatory Agency that has an organizational function to develop and supervise the regulatory frameworks for public utilities like electricity, water and sanitation, transport and telecommunication.

Electrogaz is a para-statal that is still responsible for both energy and urban water supply. However in 2008 the organization will be split into the Rwanda Water and Sewerage Corporation (RWASCO) and the Rwanda Energy Corporation (RECO). The RWASCO will obtain the operational function for water supply and sanitation services provision and RECO the operational

function for electricity generation, transmission and distribution. A National Energy Development Agency (NEDA) will also be created in January 2008 that will become responsible for the organizational function in the energy sector.

The Ministry of Agriculture and Livestock (MINAGRI) is responsible for rational water use in the agricultural sector, water supply for the livestock sector, and the development of the fisheries sector. The water uses in the agricultural sector cover both irrigation and drainage development, and soil erosion protection.

The Ministry of Finance and Economic Planning (MINECOFIN) is responsible for creating a stable macroeconomic environment, foster evidence based planning and performance based budgeting. MINECOFIN has developed an Economic Development and Poverty Reduction Strategy and is considering the basins as basic units for regional development planning. The Ministry has established sectoral working groups in which government organizations, donors, NGOs' and representatives of the private and voluntary sector organizations coordinate their activities.

The Government of Rwanda is implementing an ambitious public sector reform process that aims at a decentralization of operational responsibilities to the lower administrative levels and enhancing the private sector's involvements. The districts are charged with local economic development planning and the coordination of public services delivery.

Burundi

In Burundi, the governance functions for water resources management are shared between the Ministry of Energy and Mines, the Ministry of Agriculture and Livestock, and the Ministry of Land Management, Environment and Tourism. The Ministry of Energy and Mines is responsible for the constitutional and organizational function for water resources management. The Ministry of Agriculture and Livestock is responsible for water uses in the agricultural sector, water supply for the livestock sector, and the development of the fisheries sector. The Ministry of Land Management, Environment and Tourism is responsible for irrigation and drainage development, and watershed and soil erosion prevention.

The Water Resources Department in the Ministry of Energy and Mines takes care of the constitutional and organizational functions for water resources development. The department supports the National Commission of Water and Energy (NCWE), which main objective is the coordination of the various ministries and organizations involved in water resources management and hydropower generation. The NCWE has a leading role in the development of water legislation and the protection of water and energy resources, and the Geographical Institute of Burundi acts as its secretariate..

The Electricity Department of the DGEE in the Ministry of Energy and Mines is responsible for the constitutional and organizational function for the electricity sector. The electricity departments of the municipalities (REGIDESO) have the operational function for the generation, transmission and distribution in urban environments. The Rural Energy Departments of the provinces (DGHER) have the operational responsibility for the rural areas.

Table 1.2 Key institutions involved in the water sector of Burundi

| Constitutional function | Organisational function | Operational function |
|------------------------------------|--|--|
| Ministry of Energy and Mines (MEM) | MEM Water Resources, Electricity, Water, Geology Departments | *REGIDESO Water Department * DGHER Water Department |
| | MEM Energy Department | *DGHER Electricity |

| | | |
|---|--|--|
| | | Department *REGIDESO Electricity Department |
| Ministry of Agriculture and Animal Husbandry (MAL) | MAL General Directorates of Planning, Pedology & Soil conservation, Livestock, Fisheries | *MAL Department of Rural Engineering and land patrimony conservation *Water Users Associations *Departments of Fisheries * |
| Ministry of Land management Environment and Tourism (MINATET) | MLET GD Land Management, Rural Engineering and Land Patrimony Conservation, and Hydrometeorology, Technical, Environmental, Topography and Cartography Departments | |
| | National Institute for Environment and Conservation | Local stations National Parks |
| National Commission for Water and Energy (NCWE) | Geographical Institute of Burundi | |
| Ministry of Planning and Reconstruction | | |
| Ministry of Finance and National Economics | | |
| Ministry of Public Health | Department of Health Promotion, Hygienic and Sanitation | |
| Ministry of International Cooperation | Non-Governmental Organizations | Community Based Organizations |
| Ministry of Transport and Communications | | Department of Waterways |

The Water Resources Department of DGEE in the Ministry of Energy and Mines is responsible for the constitutional and organizational function for water supply and sanitation. The Water Departments of the municipalities (REGIDESO) have the operational function for the production, distribution and billing of water supply and sewerage water treatment in urban environments. The Water Departments of the provinces (DGHER) have the operational responsibility for the rural areas.

The General Directorate of Planning of the Ministry of Agriculture and Animal Husbandry is responsible for the planning of water related projects and programs for the agricultural, livestock and fishery sectors.

The Ministry of Land Management, Environment and Tourism (MINITET) is responsible for the constitutional and organizational functions for environmental protection. The Department of Rural Engineering and Land Patrimony Conservation is responsible for the operational function in irrigation, drainage and soil erosion prevention. The Department of Hydrometeorology and Agro-climatology is responsible for collection, processing and dissemination on meteorological and hydrological data. The Department of Topography and Cartography develops maps that organizations involved in the water sector need for the planning of interventions. The Technical and Environmental Departments of the National Institute for Environment and Conservation is responsible for water and environmental conservation initiatives in the Kivu National Park.

The Department of Waterways of the Ministry of Transport and Communication is responsible for the planning, construction and maintenance of waterways. The Ministry of Public Health has a responsibility related to the prevention of water related diseases and its Department of Health Promotion, Hygienic and Sanitation organized public awareness campaigns..

Beside the public sector organizations that are involved in the water sector of Burundi, there are numerous Non-Governmental Organizations (NGOs) and some private organizations active in the sector. The NGOs are supporting Community-based Organizations in developing rural water

supply, drainage systems for marchland, watershed conservation initiatives. Their projects vary in approach, target population and scale and the Ministry of International Cooperation acts as liaison agency between foreign and local NGOs.

DR Congo

In the Democratic Republic of Congo the mandate for water resources management is the Ministry of Environment, Nature Conservation, Water and Forests,. The Ministry of Energy, the Ministry of Agriculture and Ministry of Transportation and Waterways have responsibilities related to respectively hydropower, irrigation, drinking water and waterways.. The National Action Committee on Water and Sanitation, which operates under the Ministry of Planning, is responsible for policy, strategy and public funding of the water sector. In the territory of DR Congo situated in the Nile Basin, water use for hydropower, environment and water supply are more important than for agriculture.

Table 1.3 Key institutions involved in the water sector of DR Congo

| Constitutional function | Organisational function | Operational function |
|--|---|--|
| Ministry of Environment, Nature Conservation, Water and Forests (Directorate of Water Resources) | Directorate of Water Resources | *REGIDESO Urban Water and Electricity *National Sanitation Program |
| | Congolese Institute for Nature Conservation (ICCN-Congo) | *Provincial Directorates *Local stations (parks) *Local Committees for Nature Conservation |
| Constitutional function | Organisational function | Operational function |
| Ministry of Planning | National Action Committee on Water and Sanitation (CNAEA) | |
| Ministry of Energy | National Committee of Energy | *National Electricity Corporation (SNEL) *REGIDESO |
| Ministry of Agriculture | Directorate of Irrigation | |
| Ministry of Rural Development | National Rural Waterworks Department (SNHR) | SNHR Provincial Coordination Units |
| Ministry of Finances | | |

The Directorate of Water Resources within the Ministry of Environment, Nature Conservation, Water and Forests is responsible for the organizational function of the water sector. The Ministry is responsible for the National Sanitation Program that focuses on improving the environmental services in the urban areas. REGIDESO is the public utility company that is responsible for managing both the electricity distribution as well as the drinking water supply in the urban areas. In the Nile Basin the towns of Bunia, Butembo and Beni, Regideso is responsible for the water supply.

The Ministry of Energy is responsible for the constitutional function related to electric power, covering policy development, authorization and administrative supervision. The National Commission for Energy is a coordination platform of the public, semi-public and private sector that are involved in the electricity sector. The National Electricity Corporation (SNEL) is responsible for the operational function in the electricity generation and transmission and REGIDESO for distribution. The Direction for Rural Engineering of the Ministry of Agriculture and the National Rural Waterworks Department of the Ministry of Rural Development have mandates for respectively land reclamation (irrigation and drainage) and water supply in the rural areas. However, irrigation and drainage development are of minor importance in the Nile Basin.

Trans-boundary treaties and agreements

There have been several colonial and post-colonial bi-lateral and multi-lateral transboundary treaties and agreements related to the use and management of the waters of the Nile Basin. The following table provides a list of these treaties and agreements.

Table 1.4 Trans-boundary treaties in Nile Basin

| Date | Treaty basin | Signatories | Treaty Name |
|------------------|---------------|---|--|
| August 5, 1994 | Lake Victoria | Kenya, Tanzania, Uganda | Agreement to initiate program to strengthen regional coordination in management of resources of Lake Victoria |
| July 1, 1993 | Nile | Egypt, Ethiopia | Framework for general co-operation between the Arab republic of Egypt and Ethiopia |
| May 18, 1981 | Kagera | Burundi, Rwanda, Tanzania, Uganda | Accession of Uganda to the agreement for pertaining to the creation of the organization for the management and development of the Kagera river basin |
| August 24, 1977 | Kagera | Burundi, Rwanda, Tanzania, Uganda | Agreement for the establishment of the organization for the management and development of the Kagera river basin |
| November 8, 1995 | Nile | Sudan, Egypt | Agreement between Egypt and Sudan the government of the united Arab Republic and the government of Sudan |
| July 16, 1952 | Nile | Egypt, Great Britain and Northern Ireland | Exchange of notes constituting an agreement between the government of the United Kingdom of Great Britain and Northern Ireland and the government of Egypt regarding the construction of the Owen Falls dam in Uganda |
| January 19, 1950 | Nile | Egypt, Great Britain on behalf of Uganda | Exchange of notes constituting an agreement between the government of the united Kingdom of Great Britain and Northern Ireland on behalf of the government of Uganda and the government Egypt regarding cooperation in meteorological and hydrological surveys in certain area of the Nile basin |
| December 5 1949 | Nile | Egypt, Great Britain on behalf of Uganda | Exchange of notes constituting an agreement between the government of the United Kingdom of Great Britain and Northern Ireland and government of Egypt regarding the construction of the Owen Falls dam, Uganda |
| May 31, 1949 | Nile | Egypt, Great Britain | Exchange of notes constituting an agreement between the government of the United Kingdom of Great Britain and Northern Ireland and the government of Egypt regarding the construction of the Owen Falls dam, Uganda |
| December 7, 1946 | Nile | Egypt, Great Britain | Exchange of notes constituting an agreement between the government of the united Kingdom of Great Britain and Northern Ireland and Egypt regarding the utilization of profits from the 1940 British government cotton buying commission to finance schemes for village water supplies |

| Date | Treaty basin | Signatories | Treaty Name |
|-------------------|--------------|------------------------------|--|
| November 22, 1934 | | Belgium; Great Britain | Agreement between the United Kingdom and Belgium regarding water rights on the boundary between Tanganyika and Ruanda - Urundi |
| May 7, 1929 | Nile | Egypt; Great Britain | Exchange of notes between his Majesty's government in the United Kingdom and the Egyptian government in regard to the use of the waters of the river Nile for irrigation purposes |
| December 20, 1925 | Lake Tana | Great Britain, Italy | Exchange of notes between United Kingdom and Italy respecting concessions for a barrage at Lake Tana and a railway across Abyssinia from Eritrea to Italian Somaliland |
| December 13, 1906 | Nile | France, Great Britain, Italy | Agreement between Great Britain, France and Italy respecting Abyssinia |
| May 9, 1906 | Nile | DR Congo, Great Britain | Agreement between Great Britain and the independent state of the DR Congo, modifying the agreement signed at Brussels 12 May 1894 , relating to the spheres of influence of Great Britain and the Independent State of the DR Congo in East and Central Africa |
| May 15, 1902 | Nile | Ethiopia, Great Britain | Treaties between Great Britain and Ethiopia, relative to the frontiers between Anglo- Egyptian Sudan, Ethiopia, and Eritrea |
| March 18, 1902 | Nile | Ethiopia, Great Britain | Exchange of notes between Great Britain and Ethiopia |
| April 15, 1891 | Nile | Great Britain, Italy | Protocol between Great Britain and Italy for the demarcation of their respective spheres of influence in Eastern Africa |

Source: UNEP (2002), Atlas of International Freshwater Agreements

There are two other on-going multi-lateral agreements being negotiated by the Nile basin countries which are of major importance to the NBI-DSS. These are:

- Agreement on the Nile River Basin Cooperative Framework; and
- Protocol for Data Sharing.

Issues identified by key stakeholders

The following are some of the key water resources related issues that were identified by the stakeholders in the respective countries of the Nile Basin. These issues were categorized into structural and institutional issues.

Burundi

- Structural Issues
 1. Need for drinking water services provision
 2. Rehabilitation & Installation of Climatological & Hydrological monitoring systems
 3. Need for reliable hydrological forecasting real time information
 4. Impacts of Climate Change on flooding, soil erosion, and water quality

5. Impacts of deforestation on run off, and soil erosion
 6. Food security
 7. Fishery Management
 8. Drainage of Marshlands for Agriculture
 9. Optimal Use & Transboundary development of hydropower potential
 10. Improving & Developing navigation potential
 11. Biodiversity conservation
 12. Water pollution due to mining activities and lack of sanitation services
 13. Gaps on groundwater development knowledge
- Institutional Issues
 1. Post conflict land tenure and rights
 2. Overlap of responsibilities in the water sector
 3. Gaps in regulations and Laws

Democratic Republic of Congo

- Structural Issues
 4. Optimal Use and Analysis of Transboundary hydropower development and inter-connection potential alternatives
 5. Deforestation impacts on run off, soil erosion and loss of fertility
 6. Biodiversity conservation
 7. Need for drinking water facilities provision
 8. Pollution to water bodies due to lack of proper sanitation services
 9. Rehabilitation and installation of climatological and hydrological monitoring system
 10. Need for reliable hydrological forecasting real time information
 11. Impact of climate change in flooding, soil erosion, and water quality
 12. Food security
 13. Drainage of Marshlands for agriculture
 14. Improving and developing navigation potential
 15. Water pollution due to mining activities
 16. Watershed management
 17. Water hyacinth
 18. Pollution from petroleum exploration of Albert Lake
 19. Assessment of water resources potentialities
- Institutional Issues
 20. Fishery Management
 21. Lack of complementing top-down with bottom-up planning approaches
 22. Training of scientist in hydrology, hydrogeology and meteorology.

Rwanda

- Structural Issues
 1. Impact of deforestation on Soil Erosion
 2. Watershed Management
 3. Lack of adequate & good quality drinking water supply facilities
 4. Lack of sanitation services
 5. Climate change and impact on floods and droughts
 6. Installation & Rehabilitation of hydrological stations for water resources monitoring and assessment.
 7. Wastewater disposal and microbiological Pollution of water bodies
 8. Water hyacinth
 9. Pollution from industrial and mining activities
 10. Flood forecasting and preparedness
 11. Need to improve rainfall harvesting practices
 12. Limited Capacity in marshlands drainage methods for agricultural activities
 13. Lack of knowledge on water resources assessment (surface & groundwater)
 14. Lack of knowledge on rain water harvesting
 15. Lack of monitoring of natural water quality
 16. Lack of integrated watershed management
 17. Food insecurity due to lack of irrigation facilities
 18. Lack of flood mitigation facilities
 19. Loss of biodiversity due to environment degradation
- Institutional Issues
 1. Lack of awareness of existing laws and legislations
 2. Land Tenure
 3. Lack of enough capacity (logistics, human, institutional)
 4. Lack of institutional framework and forum to discuss DSS development
 5. Lack of proper Data Management Information Systems in institutions.
 6. Limited funds and need to promote cooperation with national, regional and international financial organizations
 7. Implementation of new law
 8. Inadequacy of data quality control system