THE REPUBLIC OF UGANDA

MINISTRY OF WATER AND ENVIRONMENT

GOU/DEVELOPMENT PARTNERS JOINT REVIEW OF THE WATER AND ENVIRONMENT SECTOR

Theme: "Sector preparedness to mitigate environmental challenges"

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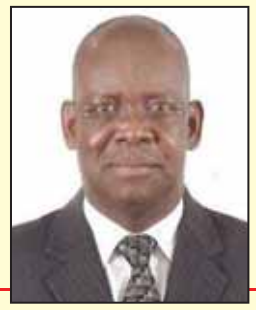

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The Government of Uganda, through the Poverty Eradication Action Plan (PEAP) is committed to significantly reduce poverty in the country. The prosperity of Uganda's population depends on good stewardship of the environment as well as access to sufficient clean water supply and good sanitation.
Water is a basic need for social and economic development and a key resource for social transformation.

Over the past years, progress has been made in the provision of basic water supply, which now stands at 65% in rural areas and 66% in urban areas. It is estimated that 68% of rural Ugandan's have latrines. In urban areas, 73% of the population has access to sanitary toilets.

Uganda's natural environment provides the country with resources (such as fertile soils to grow food, water and wood for construction and energy). The environment is also the place where human, agricultural and industrial waste ends up. The Environment and Natural Resource base is the foundation of Uganda's economy, export earnings and enables over 90% of Uganda's population to make a living. Unfortunately, there are increasing cases in the country where the delicate environmental balance is not being maintained. We are observing loss of forest and tree cover, landslides, pollution of water bodies and loss of wetlands in several parts of the country.

As part of the Ministry of Water and Environment's commitment to ensure maximum service delivery, it reviews the performance of the Water and Environment sector on an annual basis. This review enables the sector to take stock of its finances, management and outputs as well as the challenges faced during the financial year (2008/9) and wider issues. This year's review is the first which covers both the Water & Sanitation sub-sector and Environment & Natural Resources sub-sector. The review is to be conducted from 14th to 16th October 2009 at Speke Resort Munyonyo, Kampala.

The theme for this years review is: **"Sector preparedness to mitigate environmental challenges"**

On behalf of the Government of Uganda, let me take this opportunity to welcome all participants to the Review and look forward to positive outcomes that will enhance performance of the Water and Environment Sector with respect to achievement of the national sector targets and the pledges made in the President's Manifesto. My Ministry will continue to fulfill its mandate of sound management and sustainable utilization of Uganda's natural resources for the present and future generation.
Let me take this opportunity to thank all our stakeholders; the Development Partners, Local Governments, NGOs, the Private Sector and the Government of Uganda for their continued support during the 2008/09 financial year.

For God and My Country

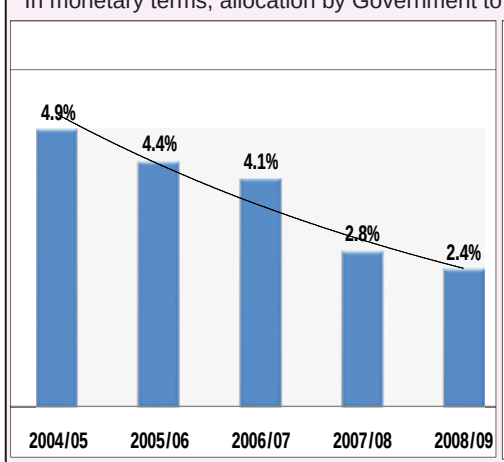
Hon. Maria Mutagamba
Minister of Water and Environment

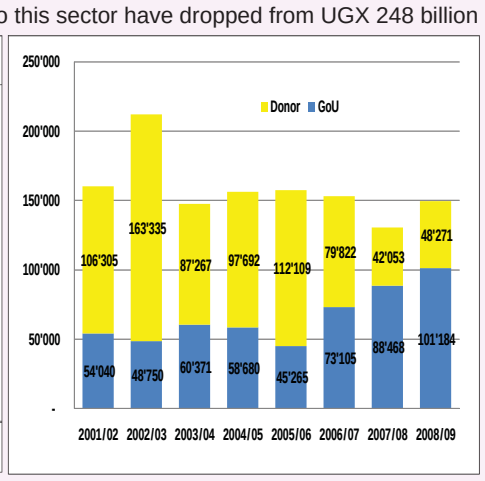
A brief of the Water and Environment Sector performance for the Financial Year 2008/09

The Water and Environment Sector covers: water resources management, rural water supply and sanitation, urban water supply and sanitation, water for production, environmental management, management of forests and trees, management of wetlands and aquatic resources, climate, weather and climate change.

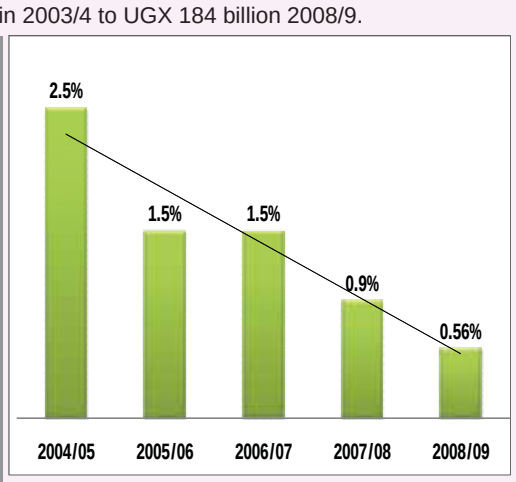
Budget Allocation

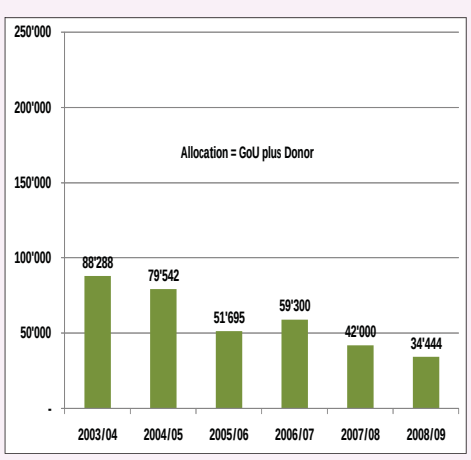
The Water and Environment Sector was allocated about 3% of the national budget in financial year 2008/9. This is a major decline from the 7.4% that was allocated in 2003/4 (see figures below). In monetary terms, allocation by Government to this sector have dropped from UGX 248 billion in 2003/4 to UGX 184 billion 2008/9.





Graphs above show Water and Sanitation Finance as a Percentage of the National Budget and in total (in UGX millions)





The graphs above show Environment and Natural Resources funding as a percentage of the national budget and in total (in UGX millions)

The State of the Environment

In Uganda, the extremely high population growth (the third highest in the world at 3.2% per year), coupled with economic development are placing a heavy burden on the environment and natural resource base, including water resources.

Over the 15 years from 1990 to 2005, Uganda lost 27% of its total forest and woodland cover. Some districts have experienced extensive loss of forest cover; for example Mayuge district has lost all of its forests while Nakasongola forests have been severely depleted (Figure and Table below). The rapidly declining forest and tree cover in Uganda is cause for concern as about 91% of the country's energy needs are from wood and charcoal. At the present rate of deforestation, it is predicted that Uganda is likely to be importing fuel wood by 2020.

Below Nakasongola strips its forests to provide charcoal for urban areas

Table below Districts with highest deforestation rates (National Forestry Authority, Biomass Study 2009).

District	1990 (ha)	2005 (ha)	Change (ha)	% change
Mayuge	15,162	0	-15,162	-100%
Wakiso	28,461	3,782	-24,679	-87%
Mubende	18,619	3,907	-14,712	-79%
Mityana	10,248	4,138	-6,110	-60%
Kibaale	114,103	58,268	-55,835	-49%
Mukono	100,627	63,977	-36,650	-36%
Mpigi	40,301	27,170	-13,131	-33%
Hoima	75,144	58,889	-16,255	-22%
Masindi	36,374	31,933	-4,440	-12%

The trends with respect to timber production on private land are also cause for concern. Mature private timber plantations will be exhausted within 3-5 years. Plantations which are expected to reach maturity within 20 years cannot meet the demand for timber. Uganda is able to sustainably harvest 53,000 cubic meters of timber from its central forest reserves but the present demand is almost 15 times as high at 750,000 cubic meters of timber.

Wetlands and aquatic resources provide the country with much needed services for water treatment, water supply and other products. However, wetlands continue to be encroached upon and are being destroyed at an alarming rate.

Increasing amounts of land are coming under cultivation. Although this is encouraging in terms of economic development, the clearance of forests and use of marginal lands is problematic. In Uganda's highlands, for example, steep slopes are increasingly being cultivated. Deforestation together with the cultivation of these slopes and lack of soil conservation is leading to soil erosion, land degradation and even landslides.

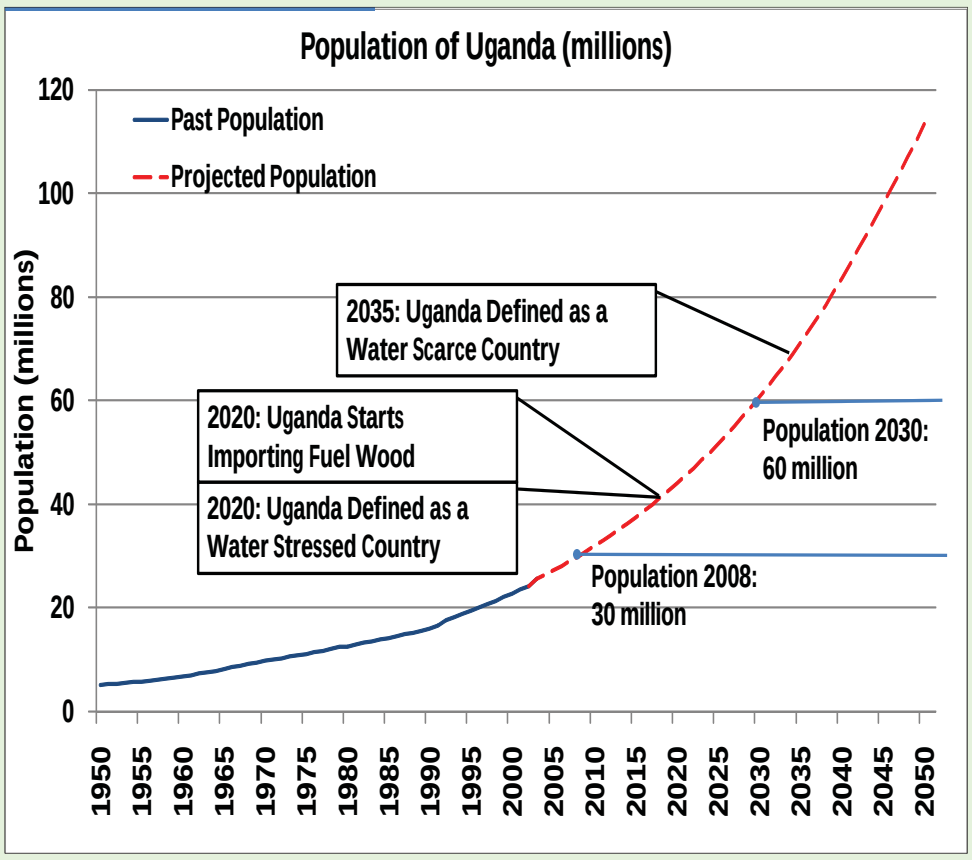
As soils are washed away, valuable agricultural land is being lost. Soil and silt ends up in rivers, Brown, silt-filled rivers are becoming a common sight in some parts of Uganda (see figure below). Treating such water and making it suitable for drinking is a challenge.

Below the brown colour of River Ngenge in Kapchorwa district is a sign of siltation

Increased levels of urbanisation coupled with poor garbage disposal mechanisms, are resulting in urban centres strewn with litter, including toxic material such as e-waste. Small-scale industries and agriculture are polluting the environment, and regulation in this regard is lacking.

Figure below Overflowing skips are a health hazard and an eyesore

Today, six times as many people are trying to survive on a reduced environment and natural resources base than they were some 60 years ago. In 2009, Uganda added about 1 million people to its population. If current trends continue, Uganda's population will have doubled again by 2030, reaching 60 million; by 2050 it will be 130 million[1]. This growth is going to put an increasing strain on the environment, include water stress and the future importation of fuel wood (see Figure below).



Further, more land fragmentation and increased intensity of land use in rural areas will lead to a reduction in individual incomes. Pressure on land and for fuel wood will force more individuals and communities to encroach on forests, wetlands, riverbanks, lakeshores, and game reserves. Forests and trees do not only provide shade, but serve a much wider role. Without serious attention, as well as sufficient public and private sector investment in forests and trees, the results and impacts for the country will be as set out in the table below.

Table showing results and impact of inadequate investment in forestry

Result	Impact
Private and community forests will be wiped out first and the forests in Protected Areas will follow suit	Forests in protected areas would be rendered vulnerable and human life would be threatened. Current hostilities are already meaning that staff protecting the forests are being killed.
Serious shortage of raw materials, especially timber for construction	Undermining the fast-growing construction industry. This would directly affect economic growth and employment opportunities
Scarcity of wood fuel for domestic & small scale processing industries and institutions.	Increased costs of production and thus lowering of Uganda's competitive edge in the region. It is projected that by 2020, Uganda will be importing wood fuel.
Escalating import bills	IUCN (2001) estimated that if kerosene is substituted for charcoal in urban households, it would result in an increase in the national import bill by US$180 million annually. However, kerosene would not be affordable, thus the majority of people would not be able to cook.
Increased hardships for the poor, e.g. reduced crop yields; poor quality water	Social unrest
Reduced energy supply, especially hydropower which depends on the water regulated by watersheds	High costs of substitution with petroleum fuels would make Uganda's goods more expensive and therefore less competitive in the region
Negative impacts of climate change problems	Increasingly dry to desert conditions, high incidences of floods and the attendant health and nutritional deficiencies
Reduced and low quality water supply for domestic and industrial use	Limited re-charge of ground water and thus water tables would become lower leading to drying up of wells, springs and boreholes and the consequent increased costs of providing water to the population and livestock. The whole country could therefore be rendered unviable for cattle grazing and agriculture.
The environment in the fast-growing urban areas would become more stuffy, and a danger to the health of the people.	Increased costs of providing health care, higher incidences of respiratory diseases and the consequent increased misery for the poor living in urban areas

Uganda is also witnessing problems regarding the pollution of surface water due to the following:

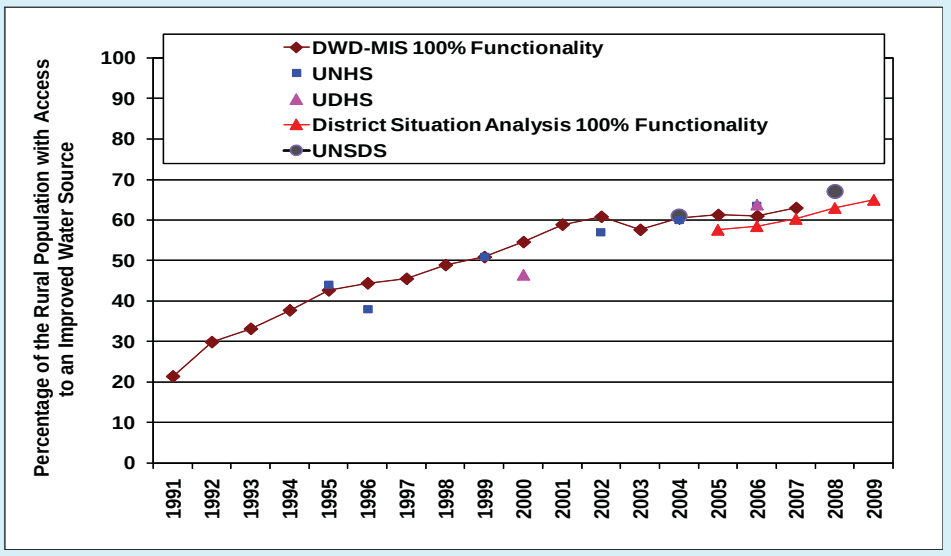
- **Poor agricultural** practices pollute surface water bodies. Sediments flow into rivers as a result of soil degradation. Nutrients from the application of fertilizers end up in rivers and lakes and there is contamination by chemicals used for control of weeds and pests. Lake Victoria, for example, is being polluted by nitrogen and phosphorus which is washed down from surrounding plantations of tea, sugarcane and coffee. This has caused aquatic weeds, especially the water hyacinth, in the lake.
- **Poor sanitation practices:** Poor on-site sanitation and dilapidated sewerage systems as well as urban run-off results in contamination of both surface water and groundwater.
- **Industrial and municipal waste discharge:** The industrial sector in Uganda is still small by international standards but is nevertheless another source of pollution due to the discharge of untreated or partially treated industrial and municipal effluent into nearby water bodies. The major industries include; abattoirs, breweries, soft drink, sugar, food processing, textile, diary processing, soap, fish processing, paper and tobacco processing industries.
- **Mining activities and oil production:** General mining activities in the country are still low and do not threaten the quality of both surface and groundwater. However, the possibility for localized pollution still exists in the areas where the mining is taking place. Oil production is an emerging issue with respect to water quality.

Uganda's Environment and Natural Resources, including water resources are under severe pressure from a fast growing population and an expanding economy. If Government, Development Partners, NGOs, the private sector and the citizens of Uganda do not take urgent and long term actions to reverse current trends with respect to the declining environment and natural resource base, including water resources, it is simply unavoidable that future generations in Uganda will suffer tremendously. Full consideration of the environment and natural resource base, including water resources needs to be a top priority in terms of strategic planning and resource allocations at all levels. If this does not happen the country will not be able to achieve prosperity for all.

Access to Safe Water and Sanitation and Water for Production Facilities in Uganda

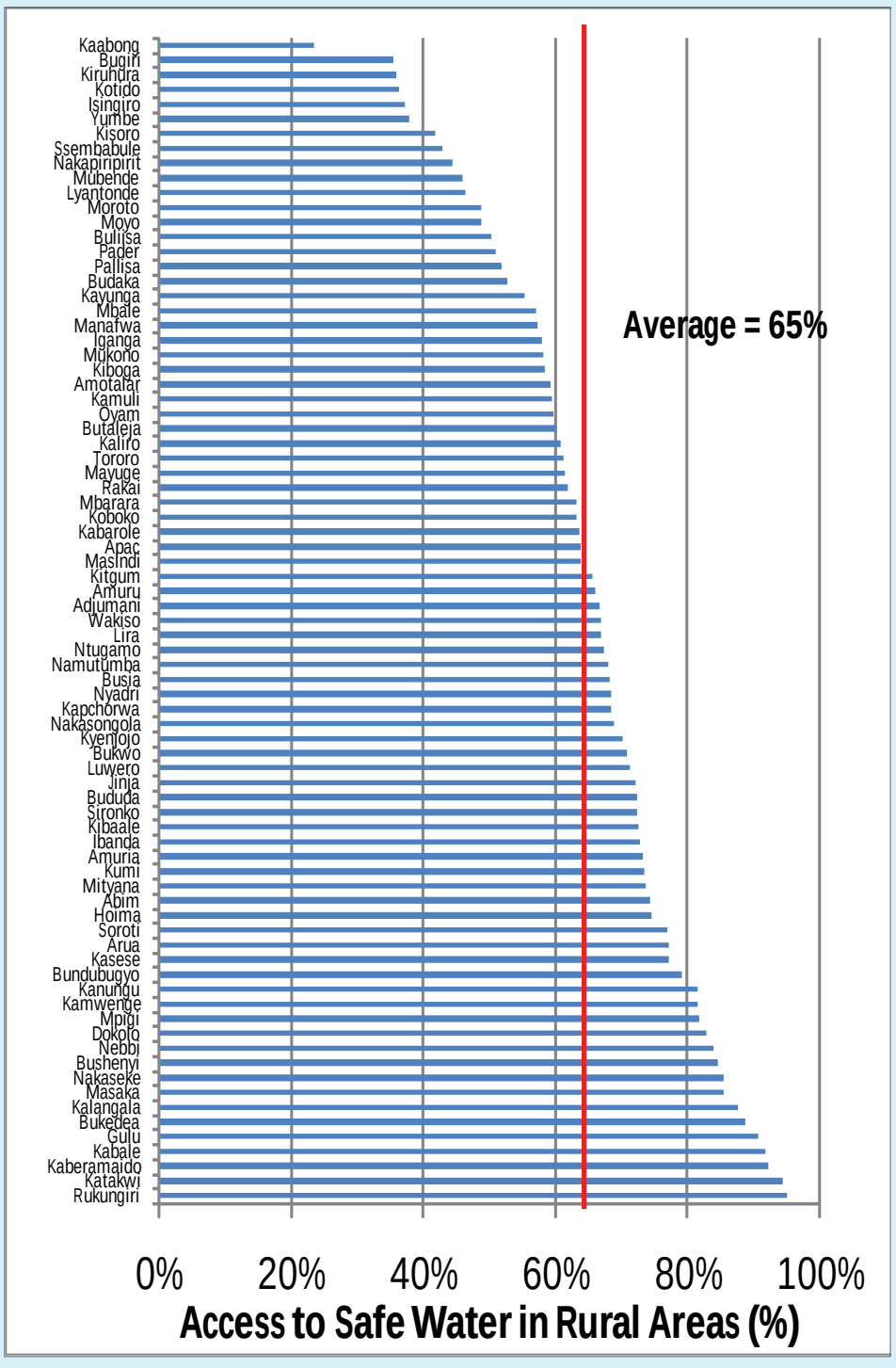
Access to safe water in rural areas (through protected springs, piped water supplies, shallow wells, boreholes and rainwater harvesting) in June 2009 is 65%. This means that 17 million people out of a total rural population of 26 million can access to safe water within about 1km of their home. The figure below shows the trends since 1990. Given the high population growth and funding levels it is going to become increasingly difficult to raise access to safe water in rural areas.

Graph showing Trends in Access to Improved Rural Water Supply (1991 to 2009)



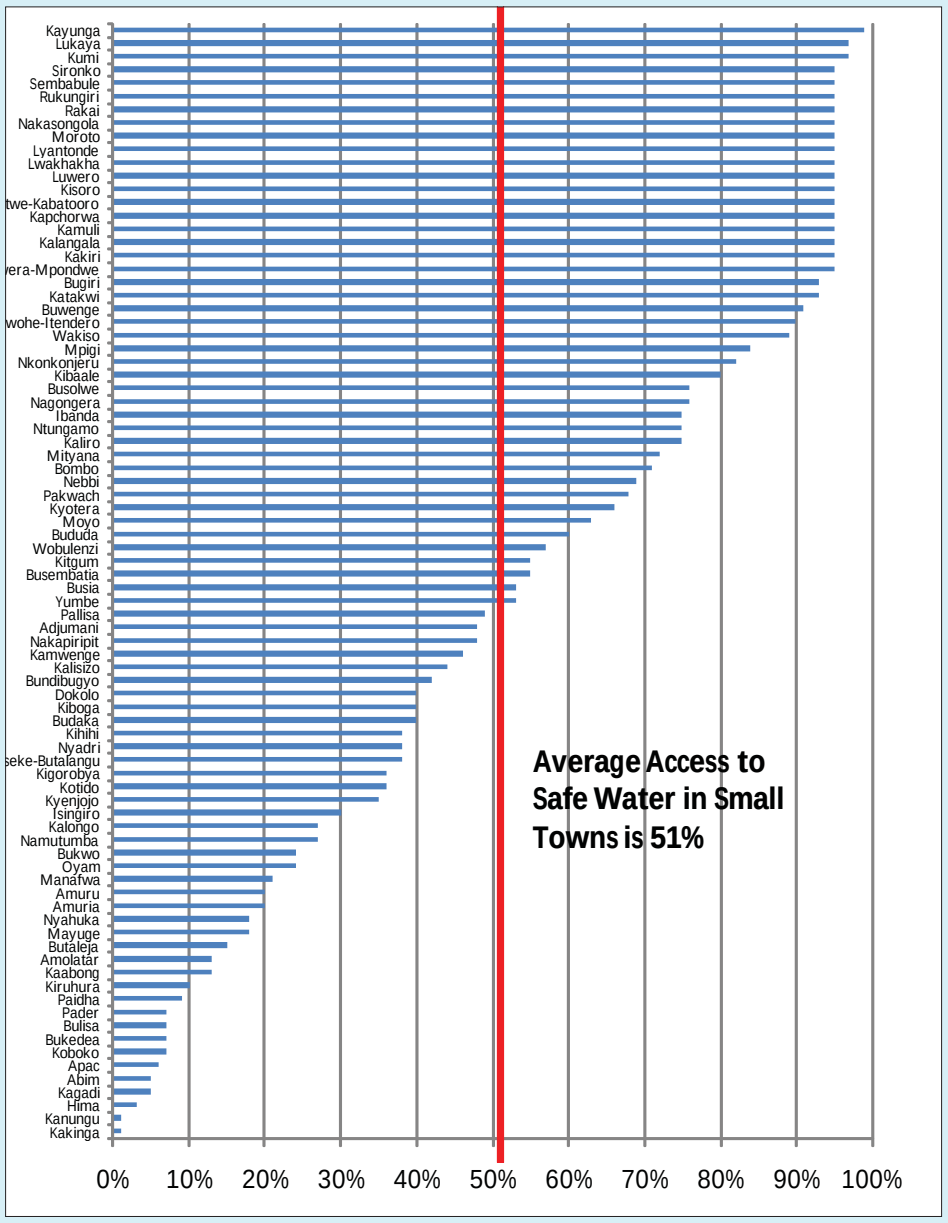
Access to safe water varies considerable between Districts (as shown in the figure below). It is encouraging to note that only 6 Districts have access to safe water for the rural population of less than 40%. This is an improvement on last year, where 9 District Local Governments reported that access was less than 40%. However, a total of 36 District Local Governments still have access below the national average of 65%. There is thus still much that needs to be done to improve this situation. The figure below shows the range of access to safe water in rural areas for all Districts.

Graph showing access to Rural Water Supplies in June 2009 for each District (%)



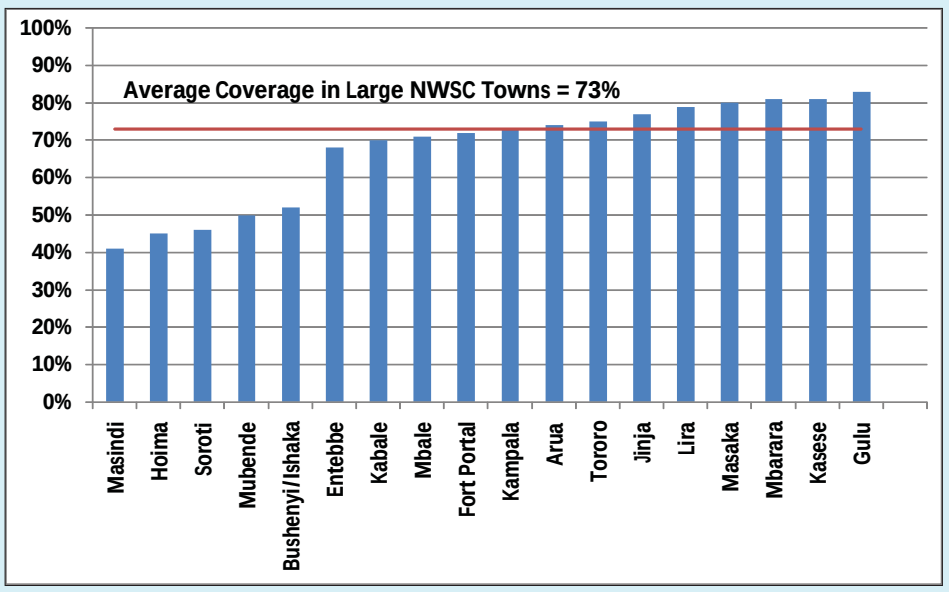
Access to Safe Water in Urban Areas (mainly through piped water supplies and boreholes, as well as shallow wells in small towns) currently stands at 66%. Management of piped water supply services in urban areas is a shared responsibility. Large towns are managed by the National Water and Sewerage Corporation (NWSC). Small towns piped water supplies are overseen by the Ministry of Water and Environment through various mechanisms, including being run by Private Operators. The figure below shows the range of access to safe water for the small towns in Uganda.

Graph showing access to Water Supplies in June 2009 for all Small Towns (%)



Service coverage in the National Water and Sewerage Cooperation (NWSC) Towns stood at 73% as of June 2009. Nine towns (Kampala, Jinja/Njeru, Tororo, Masaka, Mbarara, Gulu, Kasese, Lira, and Arua) have access to safe water greater than or equal to 73%. The towns of Entebbe, Bushenyi/Ishaka, Soroti, Hoima, Mubende, Masindi, Mbale, Fort portal, and Kabale are still below the 73% (Figure below).

Graph showing Water Service Coverage by NWSC Area (2008/9) (Note that Service Coverage for Kaberamaido is captured under Soroti, Malaba under Tororo, Iganga and Lugazi under Jinja and Mukono under Kampala area.)

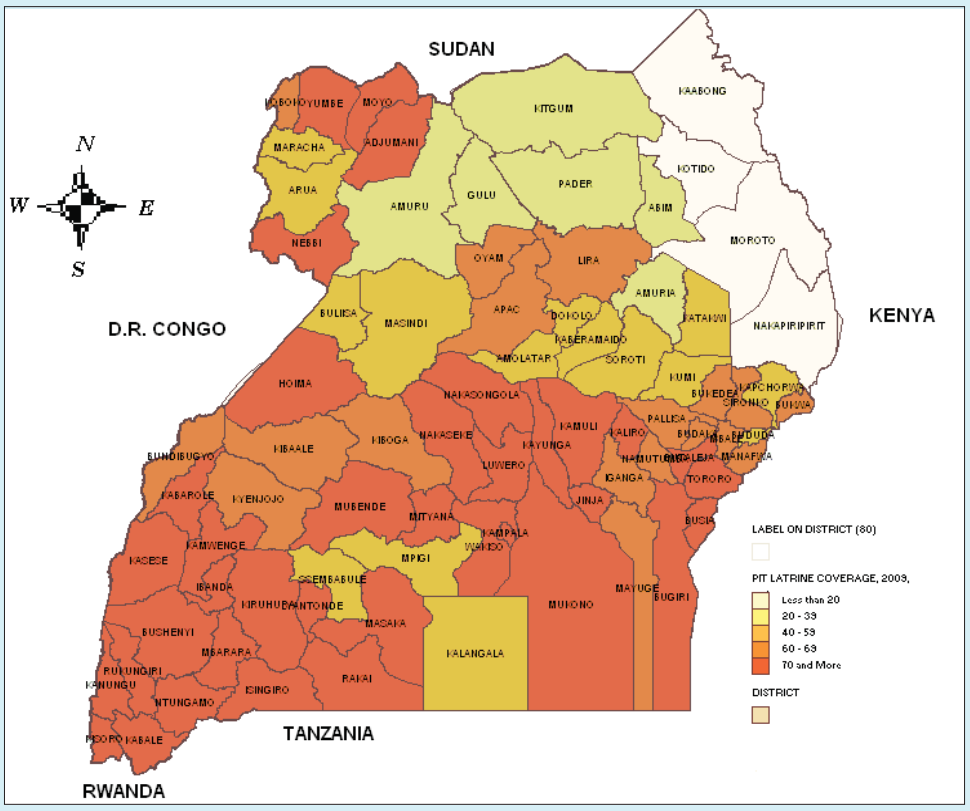


One of the most encouraging achievements in 2008/9 has been the increase in latrine coverage in rural areas from 62% to 68%. This is the highest percentage increase since the 1997 Kampala Declaration for Sanitation. The increase is mainly attributed to enforcement of bye-laws at District Local Government level as well as other sanitation promotion activities carried out throughout the country. However, the increase needs to be treated with caution as it can change rapidly due to the temporary nature of latrine and toilet structures. Details for rural sanitation coverage for each District are given in the figure below. At present, only 28% of Districts achieved the sector target of 77% of households with access to a latrine.

In urban areas, 73% of households have access to sanitary toilets. The pupil: stance ratio in primary schools improved to 43:1 from 47:1 last year.

An estimated 21% of the rural population washes their hands with soap after visiting the toilet, while the figure stands at 27% in urban areas.

The map below shows the latrine coverage across districts in FY 2008/9



It is estimated that facilities with a total volume of 17 million cubic meters store water for productive use in the country. These facilities are mainly used for livestock watering. However, this is only meeting 3.4% of the estimated total demand of 499 million cubic meters, which includes storage requirements for irrigation, fish farming and small scale industry as well as for livestock.

Main Achievements in 2008/9

MWE, National Environmental Management Authority (NEMA) and National Forest Authority (NFA) are mandated to protect, manage and restore the environment. Environmental Impact Assessments (EIAs) continued to be carried out in 2008/9, and a significant backlog from previous years was cleared. Requests for Information Technology Communications EIAs were the most common received in 2008/9, representing over 50% of the total.

The **National State of the Environment Report 2008**, **The Atlas for Uganda's Changing Environment** and an **Environmental Sensitivity Atlas for the Albertine Graben** (oil region) are the three main publications of the year. Almost all forestry activities were on target. A total of seven million seedlings were supplied to communities; enrichment planting was carried out on 2,000 ha and over 200,000 seedlings were planted throughout the country during the national tree-planting day. MWE provided technical backstopping to all District Local Governments with respect to forest management. NFA managed to only recover 372 ha of forest from encroachers Up to date, a total of 135,242 ha of land have been licensed to private tree growers. Wetlands site inspections were undertaken to enforce compliance, and 35% of Environmental Impact Assessments for Wetlands were reviewed. MWE continues to monitor the climate in Uganda, issue seasonal forecasts and weather bulletins and serve all flights with the required information. A Climate Change Unit has been established to coordinate the implementation of the United Nations Climate Change Convention.

With respect to water resources management, the main activities that were undertaken in 2008/9 were: hydrological and groundwater monitoring (from 81 stations), several hydrological and groundwater assessments, groundwater mapping and trans-boundary water resources activities; including work on the Nile Cooperative Framework Agreement. Further, a total of 212 water permits were assessed and processed, of which 145 were issued. Inspections and investigations continued to monitor compliance to permit conditions. Although some users have exhibited unwillingness to adhere to permit conditions, no enforcement or sanctions have so far been made. Instead promotion and compliance assistance was carried out. It is estimated of all the eligible organizations, that only 71% actually hold permits.

Investments by District Local Governments through the District Water and Sanitation Development Conditional Grant provided new safe water supplies to an estimated 577,000 people in rural areas. The Ministry of Water and Environment also undertook investment, enabling an estimated 24,000 people to access safe water supplies. The per capita investment cost for rural water supplies for the financial year 2008/9 was US$ 43.

Thanks to the construction of ten new piped water supply schemes in small towns, provision has been made for an additional 85,000 people in urban areas to access clean water. The investment cost was US$ 64 per person. In addition, the National Water and Sewerage Corporation (NWSC) managed to provide an additional 225,900 connections.

Investments by the Ministry of Water and Environment and District Local Governments provided an additional 2 million cubic meters of storage for water for production. Government has increased focus on the provision water for productive use, where MWE is concentrating on construction of large strategic reservoirs (including large dams and bulk water transfer systems), while the Local Governments construct reservoirs (valley tanks) of capacity 20,000 cubic meters and below.

Details can be accessed from Sector Perfomance Report 2009 for the Ministry of Water and Environment or the website: www. mwe.go.ug.