



THE REPUBLIC OF UGANDA

NATURAL RESOURCES, ENVIRONMENT, CLIMATE
CHANGE, LAND AND WATER MANAGEMENT

**PROGRAMME
PERFORMANCE
REPORT 2023**





Government of Uganda

Ministry of Water and Environment

Natural Resources, Environment, Climate Change, Land and Water Management Annual Programme Performance Report 2023

OCTOBER 2023

FOREWORD

Natural Resources, Environment, Climate Change, Land, and Water are critical to the survival of mankind. The survival of the human race largely depends on the sustainable management of these resources because they are critical in reducing disaster losses, livelihoods, and quality of life of the population. Cognisant of this reality, the Government of Uganda created a special programme for Natural Resources, Environment, Climate Change, Land and Water Management (NRECCLWM) under the Third National Development Plan (NDP III). Its goal is to reduce environmental degradation and the adverse effects of climate change, as well as improve the utilization of natural resources for sustainable economic growth and livelihood security.

As the lead Ministry, we coordinate efforts toward sustainable management of Uganda's natural resources, environment, climate, land, and water resources. The Annual Programme Performance Report (APPR) is intended to give our stakeholders accountability for progress towards the NRECCLWM programme's goals and objectives.

This is the Third Natural Resources, Environment, Climate Change, Lands and Water Management Annual Programme Performance Report 2023. It presents the performance of the Programme during the Financial Year (FY) 2022/23 with respect to investments, achievement of outcomes and interventions, and challenges. It is based on Programme objectives, outcomes, and interventions outlined in NDPIII and Programme Implementation Action Plan (PIAP). The report also presents the Ministry of Water and Environment (MWE) contribution to the Human Capital Development (HCD) and Agro-industrialisation Programmes and the contribution of NGOs/CSOs.

We have managed to reverse the wetlands' degradation rate through the measures we

implemented. The wetland coverage increased from 13% in FY 2021/22 to 13.9%. Since 2020, we have restored approximately 445 km² of wetlands. However, much work remains to be done to restore over 9000 km² of degraded wetlands including the cancellation of land titles issued in wetlands. We urge our partners to continue supporting us in this endeavour.

The Government, Private Sector, and NGOs continued to work towards restoring the forest cover. However, the rate of investment is lower than the rate of deforestation. As a result, the forest cover reduced from 13.2% to 12.2%. This was attributed to the continued cutting of trees for charcoal and firewood. The ban on charcoal production in Northern Uganda by H.E., The President of Uganda, was timely and will contribute to a reduction in cutting down trees for charcoal. My Ministry is working with the Ministry of Energy and Mineral Development on alternative energy sources for cooking. The ongoing surveying and demarcation of forest reserves and recruitment of the Environment Protection Force will contribute to the reduction in the rate of deforestation. There are deliberate efforts to mobilize Ugandans and other partners to plant more trees.

Climate Change remains a major challenge to Uganda and the world because of the adverse effects caused by extreme weather events, especially floods, landslides, and drought, affecting different parts of the country. The Government has put in place frameworks for mitigation and adaptation to climate change. The Climate Act was enacted, and the development of the Regulations to operationalize it is ongoing. Our commitments are clearly defined in the Nationally Determined Contributions (NDCs). The Climate Change Vulnerability Index is being finalized to facilitate monitoring the effects of climate change. There is an increased number of automatic weather stations to 201, covering 98 districts. The goal is for every

district to have an automatic weather station. This has greatly improved the weather forecast to about 77% accuracy. Climate financing and capacity remain challenging for the programme, and we call upon our partners to support us.

Uganda is well endowed with water resources, but it is mismanaged and under-exploited. As a result, it is being polluted, and catchments degraded. The Ministry continued to monitor compliance with water permits' conditions, water quality, and hydrology of major lakes and rivers. However compliance remained below PIAP targets. For example, ground and surface water abstraction compliance was 78.7%, and wastewater discharge was 65.6%. Compliance with national drinking water quality standards was low; for E-coli was 55% and 71% for rural and urban water sources, respectively. The restoration and conservation of water catchments continued across the country. The hydrology of major lakes and rivers was relatively stable, with no major fluctuations in the in and outflow of water.

Land management remains a priority of the government because of increasing land conflicts/disputes. Rapid population growth coupled with the majority of land being unregistered have fueled land conflicts. During FY 2022/23, titled/registered land increased to 30% from 22.4% in FY 2021/22. Land conflicts increased to 52,068, out of which 30,242 were mediated/resolved. The implementation of alternative dispute resolution has increased the speed at which land conflicts are being resolved. 6,314 households of lawful and bona fide occupants were issued with certificates of title financed by the land fund.

The increasing number of natural disasters due to climate change is a challenge for the Government. More people continued to lose lives and property to these disasters, and they put a strain on government resources. Approximately 214,145 households (1,070,727 people) were

affected by disasters, and the government supported them with relief food and non-food items and resettled some of them. The legal framework for managing disasters is being developed, and so far, the principles for Disaster Preparedness and Management have been finalized and submitted to the Cabinet.

Underfunding remains a major challenge; the budget allocation in the Medium Term Expenditure Framework (MTEF) is far below the projected funding to achieve the objectives of the programme.

Finally, on behalf of the Government of Uganda, let me express our gratitude to the various programme actors, Programme Development Partners, Civil Society Organisations, and the Private sector for their continued support and partnership.



Sam Cheptoris (MP)
MINISTER OF WATER AND ENVIRONMENT
POLITICAL HEAD,
NRECCLWM PROGRAMME

EXECUTIVE SUMMARY

Introduction

This is the third Natural Resources, Environment, Climate Change, Lands and Water Management (NRECCLWM) Annual Programme Performance Report (APPR). It presents the performance of the Programme during the Financial Year (FY) 2022/23 with respect to investments, achievement of outcomes and interventions, and challenges. It is based on Programme objectives, outcome Indicators, and interventions as outlined in NDPIII and Programme Implementation Action Plan (PIAP). It covers natural resources, environment, climate change, land and water management, disaster preparedness, and risk management. The report also covers the Ministry of Water and Environment's (MWE) contribution to other programmes – Human Capital Development (HCD) and Agro-industrialisation, the contribution of NGOs/CSOs and cross-cutting issues.

Data used for this report is derived from databases in the Ministry of Water and Environment, District Local Governments, semi-autonomous Agencies, Ministry of Lands Housing and Urban Development (MLHUD), Office of the Prime Minister, Ministry of Education and Sports, Ministry of Health, and the Uganda Bureau of Statistics (UBOS).

Programme Financing

The NRECCLWM programme approved budget the FY 2022/23 was UGX 563.69 bn, of which UGX 310.26 bn was external financing, representing 55%. UGX 452.87 bn was released, representing 80.3% of the budget. The expenditure was UGX 294.48 bn, representing 65% of the amount released. UGX 29.38 bn was released for Disaster Management, UGX 142.57 bn for Land Management, UGX 202.77 bn for Water Management, UGX 68.15 bn for environment management, and UGX 10 bn for CSOs.

The programme required budget as per NDPIII was UGX 1,098.77 bn. This shows a budget shortfall of over UGX 535 bn.

Water Resources Management

Compliance with groundwater abstraction permit conditions was 78.7% against the target of 77%. The level of compliance was the same as in FY 2021/22, which was below the PIAP target of 82%. For surface water abstraction, compliance was 78.6% against the target of 79%. This was lower than the level of compliance of 80.2% in FY 2021/22. Compliance to wastewater discharge was 65.6% against the target of 64%. This was slightly higher than the compliance of 65.2% in FY 2021/22 but lower than the PIAP target of 68%. The lower performance is attributed to very limited funding during the year, which greatly affected the implementation of activities.

419 permits (245 new and 174 renewal) were issued in FY2022/23 compared to 374 permits issued in FY 2021/2022. This represents a 12.03% increase in permits issued.

Effluent quality monitoring

The compliance levels to National Standards for wastewater (effluent) discharges with respect to Total Nitrogen (TN), Total Phosphorus (TP), Chemical Oxygen Demand (COD), and Total Suspended Solids (TSS) were 36.7%, 24.5%, 27.4%, and 45.1 % respectively. Average compliance levels of water samples with national standards for wastewater discharge stood at 33.4 % against a target of 68%.

Drinking water monitoring

1,719 water samples were collected and analyzed from rural water sources from a total of 121 districts. The overall compliance of rural water sources with respect to *E. coli* was 55.0% against the PIAP target of 80%. This is a decrease compared to 62% registered in FY 2021/22. Water supply technologies, the compliance levels were; 64.7%, 36.2%, 39.2%, and 2.8% for deep wells, shallow wells, springs and open sources/wells respectively.

1,057 water samples were collected and analysed from a total of 138 piped water supply systems. This is a decline of 68 % when

compared to 3,319 water samples were collected and analysed in FY 2021/22.

Overall compliance level for urban water supplies with respect to *E.coli* was 71%. This was a decline when compared to a compliance level of 77% achieved in FY 2021/22. This decline is attributed to the inclusion of piped water from GFS which is mostly untreated under urban water category. When segregated into individual supply technologies, the compliance levels were 74.3% and 44.2%, for piped water and gravity flow systems, respectively.

Catchment management planning and implementation

Preparation of 4 Catchment Management Plans of Nyamugasani, Kafu, Akweng and Sezibwa is at 55% progress level. Four (04) micro catchment management plans for Nsooba-Walumwany, Matanda, Kabuyanda, and Mutunda micro-catchments were finalized and ready for implementation.

7.4 km of riverbank areas within the river catchments of Sebwe in Kasese District, Tokwe in Bundibugyo District, and Semliki in Ntoroko District have been protected and restored. 40 small water harvesting structures in the form of check dams, percolation, gully plugs, and infiltration pits were constructed.

939.6ha of soil and water conservation structures were established, ranging from hedge rows, stone bunds, soil bunds, percolation trenches, grass strips, and diversion drains.

400 stakeholders have been identified and supported to benefit from alternative income-generating activities in Kabambiro, Kabuga, Karangura sub-counties in the Mpanga catchment and other areas.

34,000 fruit trees have been planted in areas so as to improve the livelihoods of communities.

8,034 improved Energy efficient cook stoves have been produced by various groups; this

has reduced encroachment on forests in search of firewood.

UGX 1.31Bn was disbursed to thirteen (13) Water and Environment Cooperative Societies (WECS) comprising project-affected persons (PAPs) as revolving fund to enable them to engage in alternative livelihood options while protecting the environment-associated catchments.

The development of the Albert Water Resources Development and Management strategy commenced and is at 30% progress.

Twelve (12) Water Source Protection Plans, mainly for hydropower projects, were developed by water infrastructure developers and submitted for approval to DWRM before implementation could start.

The pre-feasibility study for “Multinational Lakes Edward and Albert Basin Management and Investment Project” was undertaken and packaged into a bankable investment project. The LEA SIP was prepared.

Angololo Multipurpose Water Development Project between Uganda and Kenya. Angololo Multipurpose Water Development Project between Uganda and Kenya. The project has now been packaged into a bankable project where several donors, including AfDB, World Bank, GIZ, expressed interest in financing its implementation during the Donor Roundtable meeting that was organized in February 2023 in Nairobi-Kenya.

DWRM, in collaboration with FAO, has been participating in the preparation for the Ground Water for Resilience project. The draft project document was prepared and submitted to the Global Environmental Facility (GEF) for funding/financing.

Surface Water & Ground Water monitoring network

The ground water stations were 75 out of which 44 had data as of June 2023. The performance of the groundwater network was about 51% in the first 2 quarters of the year

and improved slightly to 62% during quarter 3 and 68% during quarter 4.

419 permits (245 new and 174 renewal) were issued in FY2022/23 compared to 374 permits issued in FY 2021/2022. This represents a 12.03% increase in permits issued.

Lake Victoria

Higher inflows were received during the March-April-May (MAM) season.

More inflow was received in 2023 than in the previous two years, 2022 and 2021.

Unlike the past two years of 2021 and 2022, there was some inflow received in 2023 during June.

High values of NBS were observed in November and December 2022. These high values influenced the NBS values observed in 2023 during MAM.

Lake Kyoga and Lake Albert

A declining trend in water levels of Lake Kyoga and Lake Albert was observed due to the regulation of Lake Victoria outflows. Water supply systems and run-of-river hydropower systems continued to operate well. There was a significant reduction in lake shoreline flooding since most land previously submerged is now dry ground.

Water and Environment Information System

The Water and Environment Information System Phase II (WEIS II), which integrates all the databases in the water and environment sector for supporting decision-making, has been undergoing development, and the progress level is about 80%. WEIS is expected to be handed over to the users by mid-November 2023 for testing for 3 months to enable identification of any snags that need to be addressed before formal handover.

Maintain natural water bodies and reservoirs

A number of activities have been undertaken to maintain natural water bodies and reservoirs to enhance their water storage capacity to meet water resource needs and ensure that they perform their water conveyance functions. These include

emergency maintenance works for R. Nyamwamba over 5.4km to address the flooding problem and protection of 70.4 km of riverbank around Sebwe, Tokwe, Semliki, and Mpanga rivers.

Capacity Building

Water Resource Institute (WRI) organized, supported, and conducted **16** short course trainings, both national and international in nature. These involved a total of **461 (186 female and 275 male)** participants. A database of 50 retired professionals (RP) in water resources development and management was established, and three-year framework contracts have been signed between the MWE and **37** individual professionals. **60** female mentees drawn from MWE (central and regional), were mentored to gain a positive attitude, leadership skills, and confidence with the support of **15** strategic mentors. The institute trained **180** researchers and professionals in abstract and paper writing, paper, and poster presentation. **56** practice, policy, and scientific papers were presented during the 6th Uganda Water and Environment Week 2023 (UWEWK2023). The UWEWK2023 main event attracted **1974** attended (1035 online & 939 physical) participants.

Water Policy revision and Water Act amendment

The revised National Water Policy was submitted to Cabinet which requested that a financing strategy be developed first. The strategy with the final policy are expected to be submitted to Cabinet for approval by the end of November 2023.

Natural resources, environment, and climate change

Land area covered by Forest

According to the NFA Land Use and Land Cover Biomass Study (2019), Uganda registered an increase in forest cover from 12.3% in 2017 to 13.2% in 2019 and reduced 12.2% in 2021. The loss in forest cover was attributed to charcoal burning in woodland forests mainly in Northern Uganda. Interventions have been put in place to halt further deforestation through mass community tree planting, Climate-smart

agriculture, and alternative biomass energy initiatives. Reforestation and protection of the remaining Natural forests is expected to increase forest cover from 12% in 2021 to 21% in 2030 and 24% by 2040.

13,659 ha of the annual target of 10,000 ha were freed from encroachment and restored with high-value indigenous tree species and bamboo in CFRs across the country. This constituted 54.2% (481,667ha) of the PIAP target of 889,115 ha of natural forest cover in the Central Forest Reserves.

998.3km of forest reserve boundaries were re-surveyed and marked. This constituted 45% (4,379.7km) of the total 9,755km of the 506 CFRs.

Ecosystem-Based Adaptation project, being implemented in the four districts of Isingiro, Mbarara, Arua, and Sironko, a total of 59 ha within Kuluva LFR (10 ha), Ezuku LFR (18 ha), and Giligili LFR (31 ha) have been opened up and demarcated with pillars.

A total of **15,920** ha were planted under various projects.

The area and productivity of industrial forest plantations on Central Forest Reserves increased by 14,093 ha from 149,460 ha to 163,553.8 ha. This constitutes 64% of the PIAP target of 257,475 ha of forest plantations

94,195,783 assorted seedlings of PIAP target of 200,000,000 (47.1%) were supplied from 32 tree nurseries across the country.

Land area covered by wetlands

Wetlands in Uganda today cover a total surface area of 33,762.6 sq. km (13.9%), with a notable increase of 0.9% from 13% in 2015 to 13.9% in 2022. Although the wetland coverage was estimated at 13% in 2015 of Uganda's surface area, only 8.9% (21,526km²) was intact, while 4.1% (9,885km²) was under some form of degradation.

The cumulative area of recovered wetlands after degradation since 2019/2020 is

estimated at **444.8 km² (44,480ha)** both for the National Wetlands Restoration Project and Green Climate Fund. In the reporting period there was an increase by **16% (20.5km²)** from the previous **128.7km² (2021/2022)** to **149.27km²**

This positive trajectory was mainly in Ssala-Kirika Wetland (**43.77km²**)-Kirika sub county-Kibuku, Nyamirembe wetland (**30.07 km²**) - S/C- Bushenyi, Rulindo wetland (25.21 km²) SC-Rukungiri districts. Other restorations were in Butebo (**12.23km²**), Rubrizi (**12.05 km²**), Kumi (**8.05 km²**), Tororo (**7.26 km²**) districts.

A pilot holistic revocation of land titles was undertaken for the Kinawataka wetland system, and resulted into cancellation of 302 titles. Others are pending the legal processes.

200 Ha restored along River Nile in Kangulumira Sub-County in Kayunga District, Butagaya and Budondo Sub-Counties in Jinja District and Njeru Municipality were under maintenance to ensure that bamboo planted is not destroyed by human activities.

70.1km of river banks were also demarcated with concrete pillars along River Wambabya (15km), River Nile (15km along Kamuli District), River Enyau in Arua (30.1km) , River Sironko along Sironko District(16.4km)

Permit holders complying with ESIA condition

NEMA carried out 1,934 environmental inspections with the support of the Environment Protection Police Unit and Technical Inspectors out of the 2,000 targets for the FY (97%).

Climate Change

Developed a concept note to do a feasibility on issuance on carbon certification in industrial sector.

Developed the Monitoring, Reporting and Verification (MRV) tool with components in greenhouse gas inventory, mitigation and adaptation action, sustainable development goals and support/finance. Capacity building

exercise for Agriculture, Forestry, Wetlands and land use sectors (62 participants) was conducted on the use of MRV tool.

The updated NDC was completed and was submitted September 2022. The core indicators for NDC tracking which cut across adaptation and resilience, mainstreaming, mitigation and finance mobilized.

Adaptation interventions under the Global Climate Change Alliance+ project were monitored in the districts of Luweero, Nakasongola, Nakaseke, Sembabule, Kalungu, Gomba, Kiboga, Lyantonde and Mubende.

Conducted a training on gender and climate change mainstreaming aimed at addressing the existing technical gaps on gender and climate change mainstreaming. This training targeted selected district technical staff, the Chief Administrative Officers, and District Chairperson of the project districts.

Accuracy of meteorological information

The average accuracy of the seasonal rainfall forecast was 77% against the PIAP annual target of 84%. The average accuracy increased from 70 – 75% in FY 2021/22 to 77% in FY 2022/23. However, it was within the same range of accuracy of forecasts reported in FY 2020/2021 was 75-80%.

Automation of weather and climate network

The percentage of automation of weather and climate network was 67% against the PIAP annual target of 70%. The percentage of automated network increased from 64% in FY 2021/22 to 67% in FY 2022/23. The automated station increased by 5 from 196 in FY 2021/22 to 201 in FY 2022/23, spread in 98 of the 147 districts. Since the start of NDP III, the automated weather stations have increased from 62% in FY 2020/21 to 67% in FY 2022/23. This represents an increase of 7 stations from 194 in FY 2020/21 to 201 in 2022/23.

Land Management

The total land titled/registered increased from 22.4% in 2021/22 to 30% in FY 2022/23.

the total number of land conflicts including backlog was 52,068, out of which 30,242 were mediated/resolved. This reduces the unresolved land conflicts from 45.84% in FY 2021/22 to 41.9% in FY 2022/23.

The percentage change in land conflicts increased from 2% in FY 2021/22 to 10% in FY 2022/23. The total number of land conflicts including backlog was 52,068, out of which 30,242 were mediated/resolved. This reduces the unresolved land conflicts from 45.84% in FY 2021/22 to 41.9% in FY 2022/23.

During the FY 2022/23 the interventions undertaken for land management included:

Roll-out and integration of the Land Management Information System

Established a permanent Data Processing Centre integrated with the Land Information System in Entebbe.

Contract for National Land Information System enhancements (NaLISEP) submitted to IDA for a No Objection.

45 topographic maps were updated and disseminated i.e. Kole (9), Luuka (9) Kiryandongo (9), Napak(9), and Otuke Districts (9).

Harmonization and implementation of land laws and policies

Principles for the Land Acquisition, Resettlement, and Rehabilitation Bill were submitted to the Cabinet.

National valuation standards and guidelines were developed. The regulatory impact assessment for the Valuation Bill and principles of the Valuation Bill were approved by the Cabinet in November 2022.

Inventory of Government land

798 lease transactions were completed across the country, out of which 52% (415) were for males, 16% (128) for females, and 32% (255) for Companies. 39 certificates of title processed for Ministries, Departments and Agencies.

30 surveys conducted for processing of certificates of title for land under Ministries Departments and Agencies.

Land Fund

6,314 households of lawful and bona fide occupants were issued with certificates of title. Acquired/compensated 3,130 Hectares of Land from 61 men, 23 women, 5 couples and 16 companies for Lawful and bonafide occupants. 7,807 certificates of titles were transferred to lawful and bonafide occupants. 3,167 subdivisions surveys were conducted for Mubende (1,200) and Kakumiro district (2,167).

Land consolidation, titling, and banking

3,224.711 hectares of Land acquired through compensation to absentee Landlords for securing Lawful and bonafide occupants in Buganda Bunyoro Ankole and Toro.

6,430 subdivision surveys conducted, certificate of titles processed for lawful and bonafide occupants on Buwekula Block 249, plot 24, Bugangaizi Block 90, plot 9 Block 2, Plot 1, and Gomba Block 209.

Disaster preparedness Policy and legal framework

Reviewed the Cabinet Memorandum on Principles for the DPM Bill based on the feedback from the Cabinet Secretariat. The Cabinet Memorandum was revised to address the comments raised by the Cabinet Secretariat.

Developed the National DRM Plan and held a Donor Conference to raise support for the DRM plan, which will guide disaster response and preparedness interventions.

Trained 32 District Disaster Management Committees (DDMCs) in Butebo, Kibuku, Bugweri, Kitagwenda, Buliisa, Kole, Buyende, Amuru, Adjumani, Lamwo, Nakasongola, Obongi, Butaleja, etc.

National Disaster Risk Atlas

The Atlas was disseminated in Luuka, Bugiri, and Bugweri, which will inform the disaster response and preparedness strategies.

Disaster Risk Information Management

Compiled 12 monthly disaster situation reports and UNIEWS bulletin in Rukiga, Kisoro, and Rubanda districts that informed the disaster response interventions in these areas. Disseminated Early warning Information in seven districts of Busia, Tororo, Butaleja, Budaka, Butebo, Kibuuku, and Pallisa.

Produced and disseminated nine monthly UNIEWS bulletins compiled, for July 2022 – March 2023, that facilitated disaster preparedness activities.

Enhanced rapid emergency and disaster response through training of the 11 DECOCs on using drones for Disaster Risk Mapping and Assessment.

Access to relief

Supported approximately 214,145 disaster-affected households (an average of 1,070,727 people with relief food and non-food items (NFIs) (74,951 bags of maize flour, 37,875 bags of beans, 16,330 iron sheets, 200 shovels, 195 wheelbarrows, 200 pangas, 200 pairs of shoes, 1,350 tarpaulins and 57 districts with 1,000 kits of assorted items which enhanced the livelihood of the disaster affected persons.

Resettlement of persons at risk of disasters

Resettled 374 persons from 46 households living at high risk of landslides in five disaster-prone districts of Bududa, Manafwa, and Sironko. Registered and verified 2050 households in Bududa for a resettlement package of UGX 7,000,000 each with support from Give Directly.

Table 1: Natural Resources, Environment, Climate Change, Land and Water Management Outcome Indicators

Outcome	Indicators	Baseline	Achievements		
		FY2017/18	2020/21	2021/22	2022/23
Increased compliance to all water permit conditions	Compliance to ground water abstraction (%)	76	76.8	78.7	78.7
	Compliance to surface water abstraction (%)	78	78.4	80.2	78.6
	Waste discharge (%)			65.2	65.6
Enhance water quality management	Percentage of water quality samples complying with national standards for water bodies	ND	COD 47.9% TSS 71.5% TN 25.3%	COD 27.4% TSS 45.1% TN 36.7%	COD 23%% TSS 44% TN 57%
	Percentage of water samples complying with national standards for water collection points (<i>E.coli</i>)	ND	Rural 62.2% Urban 90%	Rural 62.3% Urban 77.2%	Rural 55% Urban 71%
Increased land areas covered by forests and wetlands	% of land area covered by forests as % of total land area	9.1%	12.3	13.2	12.2
	% of land area covered by wetlands as a % of total land area	8.9%	8.9	13.0	13.9
Increased titled land	Titled land as a percentage of total land area	21	22	22.4	30
High compliance with an environmental and social impact assessment (ESIA)/Condition by developers	Percentage of permit holders complying with ESIA conditions at the time of spot check	40	80	66.6	40.5%
Improved Air quality in cities	Trends in Air Quality Index PM _{2.5}	147	154	ND	ND
Climate Change responsive Development Pathway	Average Annual Change in a Green House Gas (GHG) emissions (MtCO ₂ e)	1.39	ND	1.15	1.15
	Climate Change Vulnerability Index	2.5	ND	ND	ND
Reliable and accurate Meteorological information	Percentage of accuracy of meteorological information	60	75 – 80	70 - 75	77
	Percentage of weather and climate network automated	30	62	64	67
Reduced human and economic loss from natural hazards and disaster.	Human mortality and missing persons directly attributed to water and environment related disasters per 100,000	150	0.06	3	ND
	Economic loss (USD incurred per disaster as a % of GDP)	7.5	0.4	ND	ND
Increase income and employment from natural resources	Proportion of green jobs to total jobs	25%	ND	20%	ND

Note ND means No Data

PROGRESS OF PROGRAMME UNDERTAKINGS

Undertaking 1: Finalize development and operationalize the Climate Change Vulnerability Index as an indicator to guide national preparedness and adaptation to the effects of climate change.

The Draft Vulnerability Report and Draft Digital National Climate Vulnerability Map were developed and are pending consultations and approval by the Technical Committee. The lack of funds to facilitate the Technical Committee meetings and consultations with key selected stakeholders from the different sectors has delayed the accomplishment of this undertaking.

Undertaking 2: Fast-track development of climate change regulations, guidelines, and standards to further support and guide implementation of the Climate Change Act 2021

Identified the priority regulations. Drafted 14 regulations and guidelines for operationalizing Article 6 of the Paris Agreement. Draft regulations and guidelines are pending stakeholders' consultations.

Undertaking 3: Fast-track the development of the Disaster Preparedness and Management Bill

The Principles for the Disaster Preparedness and Management (DPM) Bill were developed and submitted to the Cabinet for approval.

Undertaking 4: Develop a clear strategy to engage, maintain, strengthen, and recognize existing partnerships, including increasing the visibility of projects funded by donors

- Established a steering committee for the undertaking on 8 November 2022.
- Developed a Concept Note and TORs on developing a strategy to engage, maintain, and strengthen partnerships in November 2022.
- Held a consultative meeting with the International and National CSOs to review existing coordination and resource mobilization mechanisms between MWE and CSOs in December 2022.

- Held a national dialogue to explore ways of improving coordination within the framework of the NRECCLWM program-Go Water Programme in March 2023.

Undertaking 5: Expedite development of the online M+E tools and library and conduct capacity building for CSOs and local Governments to use them

The contract was awarded. The consultant submitted the Inception Report, System Requirement, and design Reports. A prototype was developed, shared, and tested, and consultations for improvement were ongoing. Inadequate funding delayed the accomplishment of this undertaking.

Undertaking 6: Fast-track the development of the National Forestry Policy to facilitate collaborative forest management

The NPA Board approved the Revised Uganda Forestry Policy. MWE Top Management approved the policy with comments. The comments were addressed in the final policy, which was due for submission to Cabinet. The major challenge is the uncertainty of the long-term status of NFA in light of the ongoing restructuring of MDAs.

Undertaking 7: Fast track access by private forest managers to land offered to them by NFA

Currently, 311 CFRs (part/whole) have been allocated to 5,736 private tree planters, and the total area allocated is 217,635 ha. 4,129 active farmers (72%) have planted about 110,368.2 ha of the total allocated, giving a general performance of 51%. However, funding the updating of the database and assessment of the performance of private tree farmers is regularly required.

Undertaking 8: Fast-track the upload of coordinates for the Central Forest Reserves and the development of the Forestry Atlas

Management prepared the 1st batch of information (i.e., Background Legal information, Coordinates, and boundary Plan) of 108 Central Forest Reserves and submitted

it to the Ministry of Lands, Housing and Urban Development (MLHUD) for uploading into the National Land Information System in order to make the Forest Reserves visible to the MLHUD Officers creating titles in the system. The process is ongoing, and we are about to complete another batch of 120 CFRs.

Undertaking 9: Develop a framework to strengthen the capacity of land management institutions (adequate budgets and conditional grants to land offices)

- 130 Land management institutions in all the 10 Cities and districts of Lwengo, Buvuma, Sheema, Ntungamo, Kabale, Kazo, Mayuge, Kaberamaido, Gulu, Amuru, Oyam, Maracha, Kyankwanzi, Amolator, Dokolo and Apac Districts were trained in land management.
- 79 Land management institutions of Lwengo, Lyantonde, Amuru, Kotido, Rakai, Kyotera, Masaka, Gulu, Oyam, Mbarara, Rukungiri, Nakasongola, Jinja, Buikwe, Mukono, Kakumiiro, Kibaale, Kyegegwa, Rakai, Kyotera, Bukomansimbi, Kyenjojo, Fort Portal and Hoima, and 7 MZOs (Mukono, Kabarole, Jinja, Masaka, Gulu, Mbarara and Rukungiri) were supervised, monitored and technically supported in land management.
- Terms of 22 DLBs i.e Kapchorwa, Masaka, Rubirizi, Kaliro, Serere, Kyankwanzi, Lyantonde, Amuru, Mukono, Paliisa, Dokolo, Namisindwa, Busia, Lwengo, Ntungamo, Sheema, Ibanda, Lamwo, Omoro, Kibaale, Nakaseke and Kakumiiro were reviewed.
- UGX 5.079 bn provided to support operations of 22 MZOs.

Undertaking 10: Develop a framework for resolving land conflicts

- Alternative Dispute Resolution (ADR) guidelines were developed.
- Land eviction guidelines were developed and disseminated during 'barazas' and trainings.
- Guidelines on capturing Customary Certificate of Ownership data were developed.

- Guidelines on survey standards developed to reorganize survey data and eliminate overlaps and double titling.
- 8 'barazas' were organized in districts of Luweero, Koboko, Maracha, Kagadi, Mubende, Mityana, Gomba, and Kassanda to sensitize the public on MLHUD services, profile complaints, responses and grievances. 1,375 complaints and grievances were addressed.
- 1,216 land-related conflicts/cases were facilitated and mediated. These include court cases and public hearings. The majority of the cases were handled through public hearings (ADR); thus, the increased number of cases resolved
- A proposal for an anti-fraud/negotiation unit developed was developed.
- The Alternative Dispute Resolution (ADR) framework was developed.

Undertaking 11: Finalize the revision of the National Water Policy

Compiled information needed to address the Cabinet recommendations for incorporation in the National Water Policy: (a) the importance of water, (b) the main sources of water, (c) uses of water, (d) measures to provide water for different uses; (e) how to protect the main water sources; and (f) the dangers of encroaching on the water sources and mechanisms to address encroachment. Incorporated Cabinet recommendations into the draft Revised National Water Policy. Finalized the revised National Water Policy. Prepared an addendum to the Cabinet Paper on the Revised National Water Policy.

Undertaking 12: Fast-track the development of the Wetland Atlas

The mapping of the wetlands was finalized, and a new dataset was produced. The final draft report on the state of wetlands was produced, and it is under review. The legal instrument to gazette all wetlands was signed. The National Wetlands Management System (NWIS) was upgraded. The major challenge was the high cost of the exercise. There is a need for additional resources to complete the Wetland Atlas.

TABLE OF CONTENTS

FOREWORD.....	i
PROGRESS OF PROGRAMME UNDERTAKINGS.....	x
LIST OF TABLES.....	xvii
LIST OF FIGURES.....	xx
LIST OF ABBREVIATIONS.....	xxii
CHAPTER 1.....	1
INTRODUCTION.....	1
1.1 Programme Description.....	1
1.2 Institutional Framework.....	2
1.3 Programme Report.....	2
CHAPTER 2.....	4
PROGRAMME PLANNING, FINANCE AND CAPACITY DEVELOPMENT.....	4
2.1 Introduction.....	4
2.2 Programme Planning, Budgeting and execution.....	4
2.2.1 Programme Financial Performance.....	6
2.3 Programme Capacity Development.....	9
2.3.1 Training plans and numbers trained for identified specialties.....	9
CHAPTER 3.....	12
WATER RESOURCES MANAGEMENT.....	12
3.1 Introduction.....	12
3.2 Water Resource Management Outcome Indicators.....	12
3.3 Progress on the interventions.....	13
3.3.2 Water Quality Monitoring.....	28
3.3.3 Create a critical mass of human resources to undertake enforcement of set standards and regulations.....	36
3.3.4 Water resources institute progress and achievements FY2022/2023.....	37
CHAPTER 4.....	46
NATURAL RESOURCES, ENVIRONMENT AND CLIMATE CHANGE.....	46
4.1 Introduction.....	46
4.2 NRECC Outcome Indicators.....	48
4.2.1 Percentage of Land Area Covered by Forests.....	48
4.2.2 Percentage of Land Area covered by Wetlands.....	49
4.2.3 Increase permit holders complying with ESIA conditions at the time of spot check.....	51
4.2.4 Air Quality Index PM2.5.....	51
4.2.5 Average Annual Change in Green House Gas (GHG) Emissions (MtCO ₂ e).....	51

4.2.6 Climate Change Vulnerability Index	51
4.2.7 Percentage Change in the Accuracy of Meteorological Information	51
4.2.8 Percentage automation of weather and climate network	52
4.2.9 Increase the proportion of green jobs to total jobs from 25 to 38.	52
4.3 Progress of Implementation of Interventions.....	52
4.3.1 Strengthen conservation, restoration of forests, wetlands and water catchments, and hilly and mountainous areas.....	52
4.3.2 Maintain and/or restore a clean, healthy, and productive environment.....	64
4.3.3 Promote inclusive climate resilient and low emissions development at all levels	67
<i>Building capacity for climate change adaptation and mitigation including hazard/disaster risk reduction</i>	67
4.3.4 Promote natural resource accounting to improve the national income measurement ..	68
<i>Undertake economic valuation of selected ecosystems and their services</i>	68
4.4 Challenges, Emerging Issues and Recommendations	76
4.4.1 Challenges	76
4.4.2 Recommendation	77
CHAPTER 5	78
LAND MANAGEMENT	78
5.1 Introduction.....	78
5.2 Performance of Indicators	78
5.2.1 Titled land as a percentage of total land owned	78
5.2.2 Reduction in Land Conflicts.....	78
5.2.3 Percentage Change in Land Conflicts.....	78
5.3 Performance of Interventions.....	78
5.3.1 Complete the roll-out and integration of the Land Management Information System with other systems.....	78
5.3.2 Fast-track the formulation, review, harmonization, and implementation of land laws, policies, regulations, standards, and guidelines	79
5.3.3 Undertake a comprehensive inventory of government land	79
5.3.4 Capitalize the Land Fund to ensure access to land by lawful and bonafide occupants....	79
5.3.5 Strengthen the capacity of land management institutions in executing their mandate geared towards securing land rights	80
5.3.6 Promote land consolidation, titling, and banking.....	80
5.3.7 Promote tenure security, including women’s access to land	81
5.3.8 Establish the National Spatial Data Infrastructure (NSDI) to enhance data integration for planning and development	82
5.3.9 Develop and implement a Land Valuation Management Information System (LAVMIS) 82	82

5.3.10 Promote integrated land use planning.....	83
CHAPTER 6	84
DISASTER PREPAREDNESS AND RISK MANAGEMENT	84
6.1 Introduction.....	84
6.2 Disaster Management Outcome Indicators	84
6.2.1 Human mortality and missing persons directly attributed to water and environment- related <i>disasters per 100,000 population</i>	84
6.2.2 Economic Loss (USD) incurred per disaster as a % of GDP	84
6.3 Disaster Management Interventions.....	85
6.3.1 Strengthen the policy, legal and institutional framework for effective disaster risk governance, management, and response	85
6.3.2 Institutionalize disaster risk planning in Programmes.....	85
6.3.3 Enhance access and uptake of meteorological information.....	86
6.3.4 Enhance capacities for storage, management, and distribution of relief commodities.	87
6.3.5 Enhance the capacity for resettlement of persons at risk of disasters	88
CHAPTER 7	90
MWE CONTRIBUTION TO OTHER PROGRAMMES.....	90
7.1 MWE CONTRIBUTION TO HUMAN CAPITAL DEVELOPMENT.....	90
7.1.1 RURAL WATER SUPPLY	90
7.1.2 URBAN WATER SUPPLY.....	103
7.1.3 WATER UTILITY REGULATION	118
7.1.4 Urban Sanitation	132
7.1.5 RURAL SANITATION	140
7.2 MWE CONTRIBUTION TO AGRO-INDUSTRIALISATION	144
7.2.1 WATER FOR PRODUCTION	144
CHAPTER 8	152
CONTRIBUTION OF CSO TO THE NRECCLWM PROGRAMME.....	152
8.1 ENVIRONMENT AND NATURAL RESOURCES CIVIL SOCIETY ORGANIZATIONS	152
8.1.1 Reporting by ENR CSOs	152
8.1.2 Financial Contribution of ENR CSOs to NRECCLWM Programme	152
8.1.3 Contribution of ENR CSOs to the NRECCLWM Program	153
8.1.3.2 <i>Strengthen land use and management</i>	157
8.1.3.3: <i>Maintain and/or restore a clean, healthy, and productive environment</i>	157
8.1.3.4 <i>Promote inclusive climate resilient and low emissions development at all levels</i>	158
8.1.3.5 <i>Reduce human and economic loss from natural hazards and disasters</i>	160
3.1.3.6 <i>ENR CSOs' Challenges and Recommendations</i>	161

8.2 UGANDA WATER AND SANITATION NETWORK (UWASNET)	162
8.2.1 Reporting profile	162
8.2.2 Areas of intervention	163
8.2.3 CSO presence/activities by region	163
8.2.4 CSO investment trends	164
8.2.5 Investments by the Private Sector (Financial Institutions)	165
8.2.6 CSO contribution to district local government budgets	166
8.2.7 CSOs investment in the Human Capacity Development Programme	166
8.2.8 Access to inclusive sanitation and hygiene services in rural areas	170
8.2.9 Hygiene promotion	172
8.2.10 Capacity Building	172
8.2.11 Inclusiveness and Vulnerability	173
8.2.12 Research initiatives	174
8.2.13 WASH Case Studies	176
8.2.14 CSO INVESTMENT IN THE NATURAL RESOURCES, ENVIRONMENT, CLIMATE CHANGE, LAND AND WATER MANAGEMENT PROGRAM	182
8.2.15 AGRO INDUSTRIALISATION PROGRAM	183
8.2.16 Conclusion and Recommendations	184
CHAPTER 9	186
CROSS CUTTING ISSUES	186
9.1 Introduction	186
9.2 Gender Equality and Women Empowerment	186
9.3 Gender Indicators	186
9.3.1 Percentage of Water and Sanitation Committees (WSC) with at least one woman holding a key position	186
9.3.2 Gender in staff Composition	187
9.3.3 Gender and equity Responsive Planning and budgeting	188
9.3.4 Economic Empowerment and Initiatives to support the poor and disadvantaged	189
9.3.5 HIV/ AIDS Mainstreaming	192
9.3.6 Environmental and Social Safeguards	192
9.3.7 Safeguards Monitoring and Capacity Building	194
9.3.8 Pro Poor Strategies	195
9.3.9 Challenges for mainstreaming cross- cutting issues	195
9.4 MANAGEMENT INFORMATION SYSTEM PERFORMANCE	196
9.4.1 Data update on water source per village	196
9.4.2 Other MIS Achievements	197

SUSTAINABLE DEVELOPMENT GOAL (SDG 6) PROGRESS	198
10.1 Introductions	198
10.2 Overview of SDG 6 goal, targets and indicators	198
10.3 Process of Implementation of SDG 6	199
10.4 Progress towards SDG 6 Targets.....	200
10.5 United Nations 2023 Water Conference, High-Level Political Forum, and the SDG Summit	202
ANNEXES.....	205

LIST OF TABLES

Table 1: Natural Resources, Environment, Climate Change, Land and Water Management Outcome Indicators	ix
Table 2: Summary of Programme Investment Requirements in UGX Bn	4
Table 3: Programme Budget funding trends in UGX Bn	5
Table 4: ENRCCLWM sub- Programme Actual budget funding by source and component for FY 2022/2023 in UGX Bn	6
Table 5: Releases and expenditure for the FY 2022/23 exclusive of off budget in UGX Bn	7
Table 6: ENR-CSO Financing per subprogramme in USD	8
Table 7: Funding of components of other programmes (HCD & Agro-industrialisation) in UGX Bn ...	8
Table 8: Budget performance for components of other programmes under MWE (HCD & Agro-Industrialisation) in UGX BN	9
Table 9: Courses conducted during FY 2022/23	10
Table 10: Water Resources Management Outcome Indicators	12
Table 11: Compliance with water abstraction and waste discharge permit conditions FY 2022/23	20
Table 12: Permits applications received and issued in FY 2022/23	21
Table 13: Summary of renewal permit applications received and issued for FY 2022/2023	22
Table 14: Groundwater assessment activities conducted in FY 2022/23	24
Table 15: Water resources management performance outcomes and indicators	28
Table 16: Water samples collected by Regional Laboratories	30
Table 17: SDG indicator 6.3.2 Parameters for large lakes	32
Table 18: Number of Samples analyzed in the Laboratories	34
Table 19: NTR collection by Laboratory (UGX)	35
Table 20: Trend of forest cover against other land uses from 1990 to 2021	49
Table 21: showing intact and degraded wetlands from the 2022 land cover dataset	50
Table 22: shows the wetland cover and land use classes	50
Table 23: Trend of Performance of Central Forests Key Performance Indicators	53
Table 24: Tree project details and Area planted with trees	55
Table 25: Wetland Management Plans prepared and approved	55
Table 26: Trend in progress of outcome indicators (rural)	90
Table 27: Districts with safe water coverage below the national coverage	91
Table 28: Ongoing/completed water supply systems	96
Table 29: Water supply systems under procurements	97
Table 30: status of piped solar powered water supply systems	97
Table 31: New water points constructed under DWSCG	98
Table 32: trend in coverage of towns by NWSC as of June 2023	103
Table 33: Umbrella for Water and Sanitation Authorities Towns (schemes) covered	103
Table 34: Trend in Safe Water Coverage in Urban areas for the period 2010/2011–2022/2023 ...	104
Table 35: Additional Villages served in small towns (2019–2023)	104
Table 36: Villages served by NWSC in large towns FY 2017/18 to 2022/23	104
Table 37: Functionality of water supply schemes in small towns (2019-2023)	105
Table 38: Functionality of water supply systems by UWSA	105
Table 39: performance of Safely Managed Water Supply	105
Table 40: Trend of compliance with national drinking water standards in Small towns	105
Table 41: Trend of compliance with Water Quality standards for the FY 2017/18 to 2022/23	106
Table 42: Trend of compliance with Physio-chemical and Bacteriological water quality standards	106

Table 43: Status of construction of water supply and sanitation systems in small towns	106
Table 44: Status of on-going projects in large towns	107
Table 45: Annual Trend of PSPs/Kiosks for the Period 2017/18 - 2022/23	109
Table 46: Annual Trend of Water Mains (Km) for the FY 2017/18 to 2022/23	110
Table 47: Pipeline Network Intensification and metering under UWSA	111
Table 48: Trend of Household Connections for the FY 2017/18 – 2022/23	111
Table 49: Household connections constructed in small towns in FY 2022/23	111
Table 50: New Water Mains Extensions (Km) laid in the Industrial and Business Parks	112
Table 51: Number of Water Schemes Using Solar Energy as at June 2023	112
Table 52: Tree Planting in Water Source catchments	113
Table 53: WASH facilities provided to institutions	114
Table 54: NWSC Tariff Structure as of June 2023 (VAT Exclusive)	115
Table 55: Tariff structure of small towns (UWSA)	115
Table 56: Trends in NRW in small towns 2019-2023	116
Table 57: Performance Scheme under Umbrellas	116
Table 58: Water Supply by Umbrellas	116
Table 59: Commercial performance of Umbrellas	116
Table 60: Additional Performance Parameters for Annual Performance Progress	116
Table 61: Water Tariffs For Gazetted Authorities (Exclusive Of 18% VAT)	120
Table 62: Summary of performance Status of all Utilities	121
Table 63: Performance Boundaries for different KPIs	122
Table 64: Shows Performance Rating of 6 Umbrella Water Authorities for FY 2022/23 and FY 2021/22	123
Table 65: Performance Scorecard of NWSC FY 2022/23	126
Table 66: O&M Subsidy Impact on NDP III's Objective of Increasing Access to Safe Water Supply	130
Table 67: Completed Detailed designs for faecal Sludge Treatment Plants (FSTPs)	133
Table 68: Trend of construction of Public Toilets in large towns as of June 2023	137
Table 69: Construction of toilets in public places	138
Table 70: Annual Trend of Sewer Mains (Km) (2018-2023)	138
Table 71: Status of Sewer Connections as of June 2023	139
Table 72: Trend of Functionality of WfP Facilities in the past 5 years	146
Table 73: Progress of implementation of WfP related interventions as per NDP III/PIAP	146
Table 74: ENR Sub sector investment	153
Table 75: Contribution of each Implementing Partner in the Restore Africa Project	154
Table 76: Tree seedlings per organization	157
Table 77: Comparison of HCD PIAP investment requirement and Actual by CSOs over the years	165
Table 78: WASH loans disbursed by Financial Institutions	166
Table 79: Trend of CSO Contribution to rural water access relative to the PIAP targets from FY 20/21 to/22/23	166
Table 80: List of New Water systems constructed constructed by CSOs	167
Table 81: CSO Contribution to rural water access (point water sources)	167
Table 82: Comparison of PIAP target and actual achievement by CSOs in FY 2022/23	167
Table 83: CSO contribution to functionality of water systems	168
Table 84: List of Water Systems Rehabilitated, upgraded and expanded	168
Table 85: Summary of operators for piped water systems invested in by CSOs	169
Table 86: Key performance indicators of operators for piped water systems invested in by CSOs	170
Table 87: Distribution of interventions and sanitation facilities constructed	170
Table 88: Distribution of Interventions among beneficiary categories	171

Table 89: ODF villages achieved in FY 2021/22	171
Table 90: Sanitation Infrastructure provided to schools	171
Table 91: Research and development themes	174
Table 92: Comparison of NRECCLWN PIAP investment requirement and Actual by CSOs for FY 2020/21	182
Table 93: CSO water for production interventions	183
Table 94: Gender analysis in MWE by seniority	187
Table 95: Annual Staff Composition for the FY 2017/18 to 2022/23	188
Table 96: Women/youth Groups support	189
Table 97: Income Generating Activities in Awoja Catchment	191
Table 98: Training and Sensitization campaigns for Small town water projects	192
Table 99: Annual Trend of PSPs/Kiosks for the Period 2017/18 - 2022/23	195
Table 100: SDG 6 Targets and Indicators	198
Table 101: Progress towards SDG 6 targets	200

LIST OF FIGURES

Figure 1: NDP III Financing Vs Actual in UGX Bn	5
Figure 2: share of budget allocation by Votes under the ENRCLWM Programme	7
Figure 3: performance of groundwater monitoring network.....	19
Figure 4: Trend of monitoring Permit Holders over the past 9 FYs	21
Figure 5: Trend of applications and issues for water permits over the past 10 FYs	22
Figure 6: Trend of Non-Tax Revenue collected from water abstraction permits issuance over the past 10 FYs	23
Figure 7: Monthly Net Basin Supply for FY 2022/23	24
Figure 8: Comparison of NBS and Mean Monthly Levels for (Sept 2022-July 2023).....	25
Figure 9: Lakes: Victoria, Kyoga, and Albert Water Levels from 2019 to 2023	25
Figure 10: Compliance of Industrial and Municipal discharges	29
Figure 11: Compliance to E. coli based on technology type	31
Figure 12: Compliance trend to E. coli for point water sources	31
Figure 13: Trend of compliance to E.coli for piped water supplies in urban areas.....	32
Figure 14: Mean concentrations of Chl-a for selected lakes.....	33
Figure 15: Mean concentrations of phosphates as P and nitrates as N	33
Figure 16: Mean secchi depths for selected lakes.....	33
Figure 17: Trend in NTR performance since FY 2016/17.....	35
Figure 18: Number of isolates that exhibited MDR and XDR tendencies among the priority isolates recovered.....	36
Figure 19: Trend of forest land cover from 1990 to 2021	49
Figure 20:Trend in increase in automated weather station	52
Figure 21: %cummulative increase in wetlands area with approved management plans over the years.....	56
Figure 22: percentage increase in wetland area with approved management plans over the years (excl. transboundary wetlands).....	58
Figure 23: Showing trends in wetland area restored km ² over 4 years period.....	59
Figure 24: Distribution of villages without an improved safe water source.....	91
Figure 25: Rural safe water access as of June 2023	92
Figure 26:Rural safe water functionality as of June 2023.....	93
Figure 27: Safe water sources with WSCs.....	95
Figure 28: Operational areas of RWSRCs.....	100
Figure 29: Trend of per capita investment cost of water supply and sanitation systems	114
Figure 30: Per capita investment cost per town	115
Figure 31: Trend of Non-Revenue Water performance for towns outside NWSC.....	129
Figure 32: Non-Revenue Water Trend from 2019/20 to FY 2022/23	129
Figure 33: Volume in cubic meters that has been received at Dzaipi FSTP as of June 2023	135
Figure 34: Weyonje online tracking system application	135
Figure 35: Trends of sanitation coverage and handwashing coverage over the past six years (2017-2022)	141
Figure 36: Regional performance in Sanitation coverage, Basic Sanitation, and Hand hygiene for the FY 2022/23	142
Figure 37: Cumulative WfP Storage Capacity created (Million cubic meters)	145
Figure 38: Area under Irrigation (hectares).....	145
Figure 39:ENR CSOs reporting.....	152
Figure 40: Percentage of ENR CSOs responding in the region	152
Figure 41: Investment made in the Financial Year.....	152
Figure 42: CSO reporting trend	162
Figure 43: WASH CSO reporting by category.....	163
Figure 44: Number of CSOs reporting by NDP III program area	163

Figure 45: CSO presence by region	164
Figure 46: CSO investment trends	164
Figure 47: Investment trends per thematic area	165
Figure 48: Capacity-building interventions.....	172
Figure 49: Capacity Building topics.....	173
Figure 50: Inclusiveness and vulnerability related activities	173
Figure 51: Catchment areas of IWRM activities	183
Figure 52: Investment in water for production	184
Figure 53: women in key positions	186
Figure 54: Trend of Permanent Staff gender composition over years	187
Figure 55: Gender Composition for Contract staff over the years.....	188

LIST OF ABBREVIATIONS

ACCRA	Africa Climate Change Resilience Alliance
ADB	African Development Bank
BFP	Budget Framework Paper
BOD	Biological Oxygen Demand
BoP	Best operational Practices
CBO	Community Based Organisation
CBMS	Community Based Maintenance System
CCU	Climate Change Unit
CDD	Community-Driven Development sub-project
CDM	Clean Development Mechanism
CFA	Cooperative Framework Agreement
CFR	Central Forest Reserves
CLTS	Community Led Total Sanitation
CMO	Catchment Management Organisation
CSO	Civil Society Organisation
DESS	Department of Environment Services
DHI	District Health Inspector
DLG	District Local Government
DP	Development Partner
DWAP	District Wetland Action Plan
DWD	Directorate of Water Development
DWO	District Water Office(r)
DWRM	Directorate of Water Resources Management
DWSCC	District Water and Sanitation Coordination Committee
DWSDCG	District Water and Sanitation Development Conditional Grant
EAC	East African Community
EC	European Commission
EHD	Environment Health Division (of Ministry of Health)
EIS	Environmental Impact Statement
ENR	Environment and Natural Resources
EPPU	Environment Protection Police Unit
FAO	Food and Agricultural Organisation
FGD	Focus Group Discussion
FIEFOC	Farm Income and Enhancement and Forestry Conservation
FMP	Forest Management Plans
FO	Forest Officers
FSSD	Forestry Sector Support department
FY	Financial Year
GEF	Global Environmental Facility
GFS	Gravity Flow Scheme
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GGAP	Good Governance Action Plan
GGDS	Green Growth Development Strategy
GGWG	Good Governance sub-sector Working Group
GIS	Geographical Information System
GoU	Government of Uganda
ha	Hectares
HIC	Home Improvement Campaigns
HIP	Hygiene Improvement Programme
HIV/AIDS	Human immunodeficiency virus / acquired immunodeficiency syndrome

HPM	Hand Pump Mechanic
HPMA	Hand Pump Mechanic Association
HWF	Hand Washing Facility
ICT	Information Communication Technology
IDAMC	Internally Delegated Area Management Contract
IDP	Internally Displaced Persons
IGAD	Intergovernmental Authority on Development
ISDP	Infrastructure Service Delivery Plan
ISH	Integrated Sanitation and Hygiene
INDC	Intended Nationally Determined Contributions
JAF	Joint Assessment Framework
JBSF	Joint Budget Support Framework
JPF	Joint Partnership Fund
JSR	Joint Sector Review
JWESSP	Joint Water and Environment Sector Support Programme (2013 – 2018)
KCCA	Kampala City Council Authority
KfW	Kreditanstalt für Wiederaufbau
KP	Kyoto Protocol
KPI	Key Performance Indicators
LG	Local Government
LGDP	Local Government Development Programme
LVEMP	Lake Victoria Environmental Management Project
LVWATSAN	Lake Victoria Water and Sanitation Initiative
M&E	Monitoring and evaluation
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MIS	Management Information System
MoEMD	Ministry of Energy and Mineral Development
MOESTS	Ministry of Education, Science, Technology and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
MoGLSD	Ministry of Gender Labour and Social Development
MoH	Ministry of Health
MoLG	Ministry of Local Government
MoLHUD	Ministry of Lands Housing and Urban Development
MoTTI	Ministry of Tourism, Trade and Industry
MoU	Memorandum of Understanding
MUCCRI	Makerere University Centre for Climate Change Research and Innovations
MTEF	Medium Term Expenditure Framework
MWE	Ministry of Water and Environment
MTEF	Medium Term Expenditure Framework
MRV	Measuring, Reporting and Verification
NAADS	National Agricultural Advisory Services
NAPA	National Adaptation Programme of Action
NAMA	Nationally Appropriate Mitigation Actions
NBI	Nile Basin Initiative
NDP	National Development Plan
NEA	National Environment Act
NEC	National Environment Council
NEMA	National Environment Management Authority
NEMP	National Environmental Management Policy
NFA	National Forestry Authority
NGOs	Non-Government Organisations

NPHC	National Population and Housing Census
NPV	Net Present Value
NRW	Non-Revenue Water
NSDS	National Service Delivery Survey
NSOER	National State of Environment Report
NSWG	National Sanitation Working Group
NWIS	National Wetland Information System
NWSC	National Water and Sewerage Cooperation
NWQRL	National Water Quality Reference Laboratory
O&M	Operation and Maintenance
OBA	Output Based Aid
ODF	Open Defecation Free
PAF	Poverty Action plan
PEAP	Poverty Eradication Action Plan
PES	Payment for Ecosystem Services
PHAST	Participatory Hygiene and Sanitation Transformation
PMF	Performance Measurement Framework
PPDA	Public Procurement and Disposal of Assets Authority
PPEA	Participating Poverty Environment Assessment
PPD	Policy and Planning Department
PPP	Public Private Partnership
PSP	Public Stand Post
PRT	Performance Review Team
PWD	Person(s) with disabilities
PWP	Public water points
REDD	Reducing Carbon Emissions from Forest destruction and Degradation
RGC	Rural Growth Centre
R-PP	Readiness Preparation Proposal
RWHT	Rain Water Harvesting Tank
RWSS	Rural Water Supply and Sanitation
RWT	Rain Water Tank
SIM	Sector Investment Model
SIP	Sector Investment Plan
SPGS	Saw log Production Scheme
SPR	Sector Performance Report
SSIP	Sector Strategic Investment Plan
STWSS	Small Towns Water and Sanitation
SWAp	Sector Wide Approach
SWC	Soil and Water Conservation
SWG	Sector Working Group
SWSSB	Sub-county Water Supply and Sanitation Boards
TA	Technical Assistance
ToR	Terms of Reference
TSS	Total Suspended Solids
TSU	Technical Support Unit
UBOS	Uganda Bureau of Statistics
UfW	Unaccounted for Water
UGX	Uganda Shillings
UIA	Uganda Investment Authority
ULGA	Uganda Local Governments Association
UN	United Nations

UNMA	Uganda National Meteorological Authority
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children’s Fund
UPHC	Uganda Population and Housing Census
USAID	United States Agency for International Development
UWASNET	Uganda Water and Sanitation NGO Network
UWSS	Urban Water Supply and Sanitation
VCT	Voluntary Counselling and Testing
VfM	Value for Money
VHT	Village Health Team
VIP	Ventilated Improved Pit
VT	Valley Tank
WAG	Wetland Advisory Group
WAP	Wetland Action Planning
WASH	Water, Sanitation and Hygiene
WED	World Environment Day
WfP	Water for Production
WMD	Wetland Management Department
WMZ	Water Management Zones
WPC	Water Policy Committee
WQ	Water Quality
WRM	Water Resources Management
WSDF	Water and Sanitation Development Facility
WSP	Water and Sanitation Programme
WSC	Water Source Committee
WSS	Water Supply and Sanitation
WSSWG	Water and Sanitation Sector Working Group
WUC	Water User Committee
WURD	Water Utility Regulation Department

Exchange Rate¹ USD 1 = UGX 3,700 EUR 1 = UGX 4,400

¹ Actual annual average exchange rates based on official statistical exchange rate information from Bank of Uganda and The European Central Bank.

CHAPTER 1

INTRODUCTION

1.1 Programme Description

The Natural Resources, Environment, Climate Change, Land and Water Management (NRECCLWM) Programme is one of the 18 Programmes of NDP3. It is responsible for sound management and sustainable utilization of natural resources, environment, land and water resources and mitigation of the impact of climate change for socio-economic development of Uganda. The Programme, therefore, is central to realization of the NDP III goal of increased household incomes and improved quality of life of the population, set under the theme “**Sustainable Industrialization for Inclusive-growth, Employment and Wealth Creation**”.

The Third National Development Plan (NDPIII) whose goal is to increase household income and improve the quality of life of Ugandans has adopted a programme approach to planning, budgeting, implementation and reporting. This entails programme and performance-based budgeting to address the persistent implementation challenges resulting from uncoordinated planning, weak harmonization, limited sequencing of programmes and poor linkages between outcomes and outputs experienced in the past NDPs.

Programme Goal

The Goal of the NRECCLWM Programme is to stop and reverse the degradation of Water Resources, Environment, Natural Resources as well as the effects of Climate Change on economic growth and livelihood security.

Programme Objectives

- i) Assure availability of adequate and reliable quality freshwater resources for all uses.
- ii) Increase forest, tree and wetland coverage, restore bare hills and protect mountainous areas and rangelands.
- iii) Maintain and/or restore a clean, healthy, and productive environment.
- iv) Reduce climate change vulnerability and carbon footprint.
- v) Reduce human and economic loss from natural hazards and disasters.
- vi) Increase incomes and employment through sustainable use and value addition to water, forests and other natural resources.

Programme Results

- (i) Increase water permit holders complying with permit conditions at the time of spot check:
 - a. abstraction – surface from 76% to 85%.
 - b. abstraction – groundwater from 73% to 83%.
 - c. wastewater discharge from 59% to 68%.
- (ii) Increase water samples complying with national standards:
 - a. water bodies at 65% by 2025.
 - b. supplies/water collection point at 80% by 2025.
- (iii) Increase land area covered by forests from 9.1% to 15%.
- (iv) Increase land area covered by wetlands from 10.9% to 12%.
- (v) Increase permit holders complying with EIA conditions at the time of spot check from 40% to 90%.
- (vi) Increase the accuracy of meteorological information from 80% to 90%.
- (vii) Increase the percentage of automation of weather and climate network from 30% to 80%.
- (viii) Increase the percentage of titled land from 21 percent to 40 percent; and
- (ix) Reduce land related conflicts by 30 percent.

1.2 Institutional Framework

The Ministry of Water and Environment is the lead Ministry responsible for implementation of the Natural Resources, Environment, Climate Change, Land and Water Management Programme. The Minister of Water and Environment is the lead Minister for the programme and provides policy guidance jointly with the Minister for Lands to hold the technical leadership accountable for implementation of the programme.

The Permanent Secretary of the Ministry of Water and Environment is the designated technical leader and coordinator for the implementation of the programme bringing together all the several state and non-state actors in the programme and steers and chairs the Programme Working Group.

The Programme Working Group (PWG) is the policy making organ, within the overall NDP programme approach, in which Government (*all MDAs under the Programme*) and other stakeholders come together to function, discuss and agree on:

- i) Inter and intra agency planning.
- ii) Priority interventions and Resource allocation.
- iii) Delivery of services; and,
- iv) Joint monitoring & evaluation of multi-agency activities.

Through the Program Working Group (PWG), all stakeholders are convened to set the priorities for implementation, identify the key policy and project requirements and key implementation bottlenecks to be resolved.

Sub-Programmes – There are three sub-programmes (i) Natural Resources, Environment and Climate Change, (ii) Water Management, and (iii) Land Management. These are related to interventions/ outputs contributing to Programme Outcomes.

Directorates/Departments - These are administrative units within the institutions that implement Interventions/activities of the programme.

Programme Working Group Secretariat - The Secretariat of the Programme is housed at the Policy and Planning Department of the Ministry of Water and Environment as the leading Ministry in the Programme. The Commissioner Policy and Planning Department is the Secretary to the PWG and responsible for the day to day running of the Programme Secretariat.

1.3 Programme Report

The Natural Resources, Environment, Climate Change, Land and Water Management Annual Programme Performance Report (APPR) is the most important document for assessing the performance of the Programme. It provides an annual assessment of investments, achievement of outcome targets and progress in implementation of interventions and actions as outlined in the NDPIII and Programme Implementation Action Plan (PIAP). It highlights the major challenges and strategic issues which effect performance.

The Report is based on programme approach to planning, implementation and reporting which commenced in the FY 2020/21. It has been prepared through a participatory process with inputs from the Ministry of Water and Environment (MWE), National Environment Management Authority (NEMA), National Forestry Authority (NFA), Uganda National Meteorological Authority (UNMA), National Water and Sewerage Corporation (NWSC), Ministry of Lands, Housing and Urban Development (MLHUD), Office of the Prime Minister, Local Governments, Uganda Water and Sanitation NGO Network (UWASNET) and Environment and Natural Resources CSO Network. The primary data sources are Local and Central Government reports and databases at District Local Governments and MWE.

Chapter 2 presents Programme Planning, Finance and Capacity Development. It presents an analysis of on-budget and off-budget resources, Government (GoU) and Development Partner contributions, and contributions from large cross-sectoral projects and programmes.

Chapter 3 presents the performance of Water Resources Management sub-programme including water resources planning and regulation, water quality, monitoring and assessment, and international and transboundary water.

Chapter 4 presents the performance of the Natural Resources, Environment and Climate Change.

Chapter 5 presents the performance of Land Management and Chapter 6 Disaster Preparedness and Risk Management. Chapter 7 Presents the contribution of MWE to other programmes – Human Capital Development and Agro-Industrialisation. It analyses the performance under rural and urban water supply, sanitation and water for production.

Chapter 8 presents the contribution of Environment and Natural Resources (ENR) CSOs and Uganda Water and Sanitation NGO Network (UWASNET). Chapter 9 Presents the cross-cutting issues including gender, HIV/AIDS and Pro-poor initiatives. Chapter 10 presents the Conclusions and Recommendations.

CHAPTER 2

PROGRAMME PLANNING, FINANCE AND CAPACITY DEVELOPMENT

2.1 Introduction

The section provides highlights on the planning, budgeting and capacity development under the programme during the financial year 2022/23. The planning and budgeting and operation of Programme Working Groups as guided under the operational guidelines under NDP III and the Public Finance and Management Act 2015 (PFMA 2015). As the highest body and approving organ, the PWG is responsible for setting priorities for strategic guidance, allocations, identifying key policy and project requirements, and approval of annual programme plans and budget

Programme budgets and plans are derived from the Programme Implementation Action Plan (PIAP) as developed under the NDP III and as and revised at the medium-term review. Like many other agencies/votes water and environment contributes majorly to three programmes namely:

- a) Natural Resources, Environment, Climate Change, Land and Water Management Programme.
- b) Human Capital Development Programme
- c) Agro- industrialization Programme

2.2 Programme Planning, Budgeting and execution

Programme planning and budgeting is guided by the Public Finance and Management Act 2105 and NDP III guidelines as well as the Budget Call Circular that are issued from time to time. Therefore, the programme annual budgets and allocations there are mainly driven by the National Development Plan III- Programme Implementation Action Plans (PIAPs) and the budget strategy of the financial year in question. The plans are guided by priority outputs/projects spelt in the NDP III programme PAIPs, key strategic areas and projects that have high return to the economy. The table 2 below shows the PIAP requirements as set under the NDP III.

Table 2: Summary of Programme Investment Requirements in UGX Bn

Investment categories	2020/21	2021/22	2022/23	2023/24	2024/25
Wage	32.076	46.3	48.615	51.046	53.598
Non -Wage	58.27	88.039	101.245	116.432	133.896
Development	596.098	848.899	948.91	955.13	925.212
Total	686.44	983.24	1,098.77	1,122.61	1,112.71

While table 2 above shows the indicative funding for the NRECCLWM programme as projected under the NDPIII. Funding to the NRECCLWP continues to be below the required and planned trajectory. This can be attributed to the financing challenges to the economy but more importantly there is need for appreciating the role the NRECCLWM plays in the development of Uganda's economy

Table 3 shows the trends in financing over the period and planned figures for the NDP III period.

Programme MTEF allocations

Table 3: Programme Budget funding trends in UGX Bn

F/Y	Approved/Disbursed budget				Budget projections	
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Wage	46.85	43.65	43.44	49.34	49.34	11.24
Non-Wage	64.27	85.36	77.10	99.45	99.30	88.225
GoU Dev't	192.21	127.00	135.46	138.11	120.76	208.6905
External	334.56	283.31	150.19	127.90	142.65	253.4836
Total	637.89	539.31	406.19	414.80	412.05	561.64

From the Economic study “Contributions of Water Resources Development and Environment to Uganda’s Economy” undertaken by the Ministry/World Bank in 2018, indicates that the total ecosystem service value of all wetland services in 2020 were approximately \$970 million to \$1.11 billion (assuming only 10% of Uganda’s land is wetlands). We note that, the study looked at Business as usual Scenario, Moderate Investment Scenario and High Investment Scenario based on the 2040 preferred development indicators. The study shows that, the value of wetlands to GDP increases from \$1.26bn with the moderate investment scenario to \$1.44 billion annually in the high investment case (assuming 13% Uganda’s land is wetlands).

The study shows and as evidently known, Uganda’s Economy is Natural resource based and highly relies on environmental quality and the stock of natural resources goods and services for enhancing their productivity, providing the necessary raw materials, and reducing the cost of public expenditure for providing the services in those sectors. Contrary to the study findings however, the current funding levels to the programme are lower than the minimum required to trigger the great potential Natural resources can play in this economy. There is a huge mismatch between the required funding and the available funding. The chances of delivering on the targeted indicators as planned under the NDPIII are highly compromised given the available level funding.

Figure 1 below shows the funding gaps based on the planned projections and how they are increasing over years as opposed to decreasing.

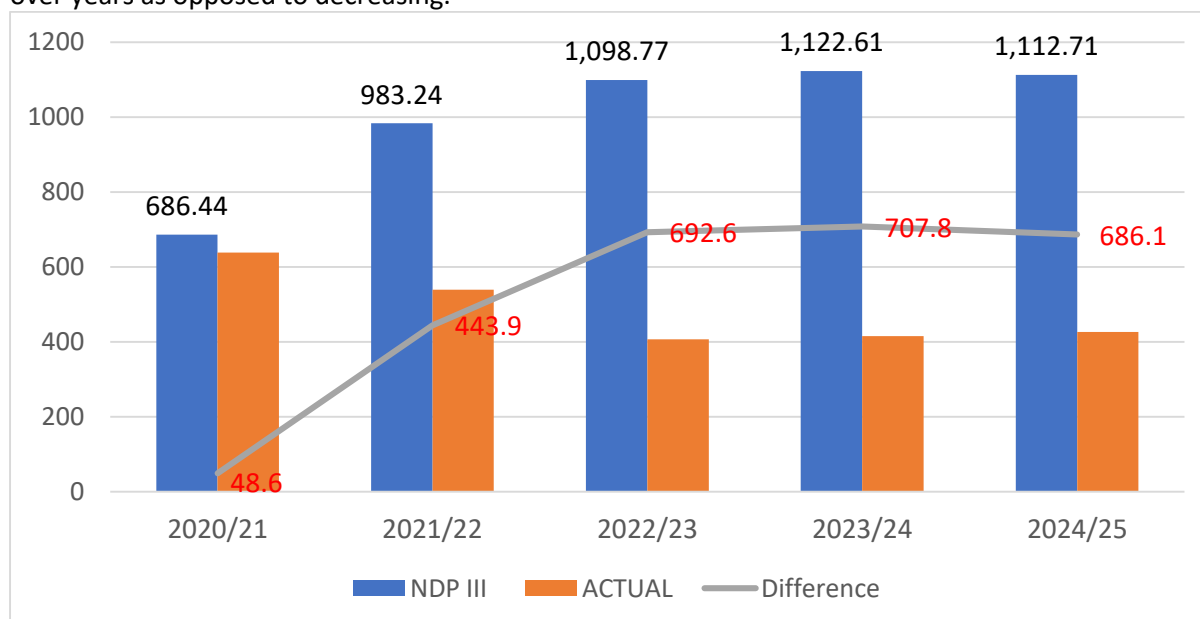


Figure 1: NDP III Financing Vs Actual in UGX Bn

Figure 1 above further shows actual MTEF allocations to the programme against the NDP III planned ceilings at its approval. Given the pivotal role of Natural resources in the economic development of the country. The economy requires substantial amounts for the development, maintenance restoration of the environment. The programme requires a minimum of UGX 5.2bn annually to reach the vision 2040 targets and also to fully play its potential in the economy.

2.2.1 Programme Financial Performance

2.2.1.1 Programme Budget for FY 2022/23

The total allocation for the NRECCLWM programme for the FY 2022/23, was UGX 563.70 of which UGX 253.5bn was GoU while UGX 310.26 was External financing including Civil Society Organisations (CSO's). There was a reduction from UGX 581.97bn in the FY 2021/2022 to UGX 563.7bn in the FY 2022/23 in terms of the approved budget.

Table 4 below shows the allocation to the actual programme allocation FY 2022/2023 by Thematic area and respective votes

Table 4: ENRCLWM sub- Programme Actual budget funding by source and component for FY 2022/2023 in UGX Bn

		Vote	Wage	Non-Wage	GoU Dev't	External	Total	
06 Climate Change, Natural Resources, Environment, Land and Water Management	Disaster Management	003	0.34	9.66	10.81	0.00	20.81	
		109	7.41	3.69	6.56	0.00	17.66	
	Land Management	012	8.71	10.09	12.67	92.19	123.66	
		156	1.06	0.93	38.11	0.00	40.11	
	Water Management	019	10.93	12.98	71.14	184.16	279.22	
	Environment Management	122	0.00	17.06	0.34	3.15	20.56	
		150	6.72	8.97	3.25	0.00	18.94	
		157	8.27	15.32	5.65	0.00	29.24	
		580	0.00	3.50	0.00	0.00	3.50	
	CSO's Off-budget		0.00	0.00	0.00	10.00	10.00	
	Total			43.44	82.2	148.53	310.26	563.70

2.2.1.2 Budget share by Vote

The individual vote allocations are shown in Table 4. The proportional share of the budget by vote is depicted in Figure 2. MWE, and disaster management components had the biggest share of the budget. Minimum allocations were made to climate change and Environment. Environment and Climate change still have low allocations yet they are key in achievement of the programme goals and objectives.

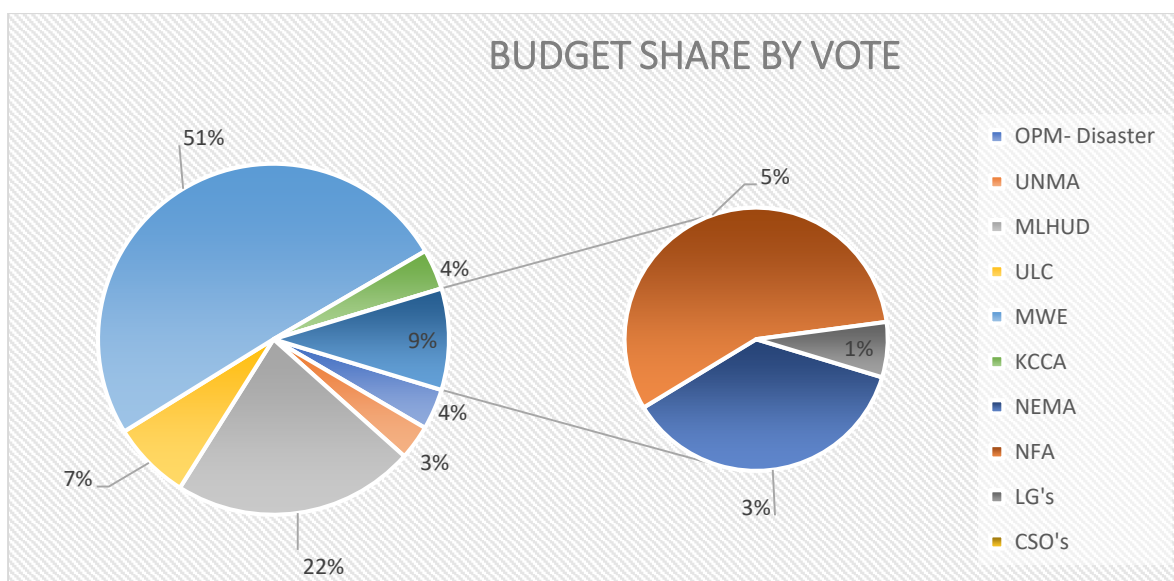


Figure 2: share of budget allocation by Votes under the ENRCCLWM Programme

2.2.1.3 Budget Performance

This section analyses the appropriation by parliament, releases and budget performance of the programme. Out of the **UGX 563.7bn appropriated by Parliament, UGX 452.87bn (80.3%) was released to the programme**. Out of these releases, **UGX 294.48bn** was spent representing 65% absorption rate. The low absorption was mainly due to delays in concluding procurement on the external funded projects like Mbale, Isingiro and Gulu that necessitated re-tendering of the procurements hence the delays and challenges of compensation of the affected person on water for production sites.

Table 5 below illustrates budget performance as appropriated by Parliament by vote in the programme

Table 5: Releases and expenditure for the FY 2022/23 exclusive of off budget in UGX Bn

	Vote	Approved budget	Release	Expenditure	% of Budget Released	% of Budget Spent	% of Release Spent	
06 Climate Change, Natural Resources, Environment, Land and Water Management	Disaster Management	003	20.81	14.76	10.29	71.0	49.5	69.7
		109	17.66	14.62	14.51	82.8	82.2	99.2
	Land Management	012	123.66	111.58	31.33	90.2	25.3	28.1
		156	40.11	30.99	30.24	77.3	75.4	97.6
	Water Management	019	279.22	202.77	135.39	72.6	48.5	66.8
	Environment Management	122	20.56	22.39	21.64	108.9	105.3	96.7
		150	18.94	17.32	16.86	91.4	89.0	97.4
		157	29.24	24.94	24.21	85.3	82.8	97.1
		580	3.50	3.50	0.00	100.0	0.0	0.0
	CSO's		10.00	10.00	10.00	100.0	100.0	100.0
Total		563.69	452.87	294.48	80.3	52.2%	65.0	

2.2.1.4 Off- budget- CSOs

Table 6 shows the contribution of ENR CSOs of **USD 4,208,666** of which, 75.81% was spent on forestry-related programs, and 14.27% was spent on weather, climate, and climate change.

Table 6: ENR-CSO Financing per subprogramme in USD

Thematic area	FY 2022/23	
	Amount (USD)	Percentage (%)
Forestry	3,190,559	75.81
Environment	152,200	3.62
Wetlands	142,336	3.38
Climate	600,557	14.27
Governance	90,014	2.14
Water mgt	25,000	0.59
Energy	5,000	0.12
Land Management	3,000	0.07
Total	4,208,666	100

2.2.1.5 Funding in other Programmes

Water and Environment cuts across other programmes under the NDP III programme planning and budgeting. The programmes looked at in the section are those to where allocations are made to the water and environment within their respective programmes.

Table 7 below shows the funding to water and environment components under other programmes: these are mainly Human Capital Development (HCD) and Agro-Industrialisation. Funding from the other programmes is mainly to Water for production, Domestic water supply under Urban Water supply and sewerage, Rural Water supply and sanitation component, National Water and Sewerage Corporation (AIA component) and Kampala Capital City Authority water and sanitation components. The total budget allocation for FY 2022/23 to water and environment components by other programmes of HCD and Agro-industrialisation amounted to **UGX 2,011.4bn**. This includes UGX 683.0bn by National Water and Sewerage corporation for its operations.

Table 7: Funding of components of other programmes (HCD & Agro-industrialisation) in UGX Bn

Programme	Vote	Sub-sub programme	Wage	Non - Wage	Go U	Ext. Fin	AIA- NWSC	Total
Human Capital Development	019	Rural Water Supply and Sanitation	1.57	0.10	80.086	55.32	0	137.07
	019	Urban Water Supply and Sanitation	3.17	0.25	263.86	626.573	683	1,576.85
	500	Rural Water Supply and Sanitation- LG's	0	10	79.5	0	0	89.50
	500	Urban Water Supply and Sanitation- LG's	0	2.5	0	0	0	2.50
Agro-Industrialization	019	Water for Production	0.48	0.035	83.72	121.245	0	205.48
Total			5.21	12.89	507.17	803.14	683.00	2,011.40

Table 8 shows the budget performance of MWE including National Water and Sewerage Corporation (AIA) towards the outputs under the other two programmes of Agro industrialisation and Human

Capital Development programmes. It shows that the two programme have a higher percentage on MWE budget. WASH CSOs under UWASNET contributed UGX 106.2 Bn.

Table 8: Budget performance for components of other programmes under MWE (HCD & Agro- Industrialisation) in UGX BN

Programme	Vote	Sub-sub programme	Release	Expenditure	% Of Budget Released	% Of Budget spent	% Of Release spent
Human Capital Development	19	Rural Water Supply and Sanitation	61.88	60.21	45	44	97
	19	Urban Water Supply and Sanitation	1,362.96	843.71	86	54	62
	500	Rural Water Supply and Sanitation- LG's	89.50	79.25	100	89	89
	500	Urban Water Supply and Sanitation- LG's	2.50	2.50	100	100	100
		CSO's (UWASNET)	106.2	106.2	100	100	100
Agro-Industrialization	19	Water for Production	116.13	62.71	57	31	54
		CSO's (UWASNET)	0.2	0.2	100	100	100
Total			1,739.37	1154.78	86.5	57	66

The budget for FY 2022/23 was **UGX 2,011.40bn** and **UGX 1,739.37bn** was released representing 86.5% release of which UGX 1,154.78bn was spent representing 66% absorption rate. The absorption rate reduced from 91% in the FY 2022/23 mainly due to delayed project designs, certificate approvals and “no objections” especially on the externally financed projects.

2.3 Programme Capacity Development

2.3.1 Training plans and numbers trained for identified specialties

During the FY 2022/23, the following training and capacity development were conducted in the Sector:

- i) The Ministry continued with the process of reviewing and updating the current Uganda Water Supply Design Manual 2013 and Design Guidelines for the water infrastructure. This is part of the operationalization of the Memorandum of Understanding (MOU) between the Ministry and Engineers without Borders. The TORs were drafted, the inception meeting was held, and the review is underway.
- ii) The Senior Management members of the Ministry of Water and Environment were involved in various soft skills training for personal growth, health, and financial management. The trainings included:
 - Physical Personal Health for improved performance.
 - Personal Brand Management.
 - Planning for Retirement and Transition from the workplace to the community.
 - Strategic Leadership and Management skills.
- iii) During Women’s Day, female staff members were celebrated and renowned Speakers were invited to talk about Women’s capacity and performance in the workplace. Topics discussed included:
 - Excelling in a male-dominated world.
 - Self-Care
- iv) The MWE initiated the process of collaboration and partnering with the Public Universities in applied research and training on water, sanitation, Environment, and Climate change aspects. Meetings so far held with Makerere University Business School and Uganda Management Institute.

- v) In a bid to equip fresh graduates from University with hands-on skills for the labour market in the public and private sector, 205 fresh graduates (65 females and 84 males) were recruited and deployed on various ongoing projects across the country on a one-year graduate training program. The internship programme for continuing students took on 175 students from different tertiary institutions.
- vi) The Ministry initiated the process of collaborating with Global Water Centre to provide training on solar-powered drilling for about 600 .
- vii) Conducted a 5-day training course on introduction to Applied Hydrogeology and Ground Water Modelling c for staff of the MWE and the Private Sector.
- viii) The staff from the Rural Water Department of the MWE was facilitated to undertake training on solar-powered water supply technology.
- ix) A 4-day training course on Contract Management for staff of MWE was conducted.
- x) Several trainings were undertaken at the Water Resources Institute and during the Uganda Water and Environment Week as per the table 9 below.

Table 9: Courses conducted during FY 2022/23

No.	Training title	Target group	Proposed dates	Organizers	Number of participants	Category
1	WaterTime: An asset-focused business approach and technical set up to manage small-scale piped drinking water systems sustainably (simavuwai)	Water and Environment Stakeholders	13 th March, 2023	MWE	81	Training
2	Use of SEPAL for land and environment monitoring (women in GIS Uganda)	Water and Environment Stakeholders	14th March,2023	MWE	146	
3	Supporting Climate Resilience in Water/Environmental/Civil Infrastructure (Makerere University/UEGCL	Water and Environment Stakeholders	15th March,2023	MWE	49	
4	Sustainable Development Goal 6 training manual (Water Aid)	Water and Environment Stakeholders	15th March,2023	MWE	25	
5	Technical Evaluation of Large scale solar water powered systems (Engineers Without Borders East-Africa)	Engineers	17th March 2023	MWE	41	Training
6	WRI- Mentorship program	Mid-career female professionals (MWE center)	20th October 2022	MWE- WRI-WAU	25	Training
7	WRI- Mentorship program	Mid-career female professionals (MWE - Deconcentrated structures)	27th October 2022	MWE- WRI-WAU	28	
8	WRI- Mentorship program	Mid-career female professionals (MWE centre)	10th November 2022	MWE- WRI-WAU	25	
8	Capacity building Training on Climate Resilience in Water, Environment and civil infrastructure for Ugandan professionals.	Training of Trainers (TOT) p and other MWE personnel	17th September 2022	MWE, K- Water	28	

No.	Training title	Target group	Proposed dates	Organizers	Number of participants	Category
9	workshop on “Uganda’s Challenges and Visions in Responding to Climate Changes (Ideas for the Future Project Proposal and collaboration)”	TOT participants and other related MWE personnel)	15th December 2022	MWE, K-Water	20	
10	Training on Modelling Water Assessment Report for KAFU	MWE Personnel	16th December 2022	MWE	23	
11	Training on M&E tool operationalization for Strengthening drought resilience for smallholder farmers and pastoralists in IGAD region – DRESS-EA Project -Uganda	MWE staff attached to the DRESS-EA project.	19th -20th December 2022	MWE, with support from GWP	20	
12	WRI- Mentorship program	Mid-career female professionals (MWE centre)	12th January 2023	MWE, WFP, IRC	30	
13	Workshop to Harmonise WEMIS Data Collection Tools	MWE Staff, WFP, and IRC staff		MWE, WFP, IRC	30	
14	WRI- Mentorship program	Mid-career female professionals (Deconcentrated structures) MWE	16th Nov, October	MWE-WRI, WAU	22	
15	WRI- Mentorship program	Mid-career female professionals (MWE centre)	2nd February 2023	MWE-WRI, WAU	26	
16	WRI- Mentorship program	Mid-career female professionals (Central Cohort)	23rd February 2023	MWE-WRI, WAU	20	
17	WRI- Mentorship program	Mid-career female professionals (Regional Cohort)	6th March 2023	MWE-WRI, WAU	26	

CHAPTER 3

WATER RESOURCES MANAGEMENT

3.1 Introduction

Water Resources Management Sub-programme is responsible for achieving the programme objectives of ensuring the availability of adequate and reliable quality freshwater resources for all uses. It also contributes to the programme objective of increasing incomes and employment through sustainable use and value addition to water, forests, and other natural resources.

Its key results include (i) Increased water permit holders complying with permit conditions at the time of spot check (abstraction – surface water from 78% to 82%, groundwater from 76% to 81%, and wastewater discharge from 63% to 68%; and (ii) Increase water samples at the point of collection complying with national standards (water bodies to 65% by 2025 and supplies/water collection point to 80% by 2025).

3.2 Water Resource Management Outcome Indicators

Table 10 presents the Water Resources Management outcome indicators as outlined in the NDP III programme-level results framework. Overall, compliance with permit conditions stagnated when compared to the FY 2021/22. Compliance with groundwater permits remained at 76.8% in FY2022/23, which was below the target of 77%. At the current rate of progress, the NDP III target of 81% compliance with groundwater permit conditions is likely not to be achieved by 2025.

The compliance to surface water permit conditions slightly increased from 78.4% in FY 2021/22 to 78.6% in FY 2022/23. This is below the target of 79% for the reporting period and below the NDP III target of 82% compliance to surface water permit conditions required to be achieved by 2025. There was also a slight increase in compliance with wastewater discharge permit conditions from 65.3% in FY 2021/22 to 65.6% in FY 2022/23. This increase exceeded the target of 64%. At the current rate of progress, the NDP III target of 68% compliance with wastewater discharge permit conditions is likely to be achieved by 2025. The lower performance is attributed to very limited funding during the year, which greatly affected the implementation of activities.

The percentage of water samples complying with national standards for wastewater discharge was 47.0% against the target of 68% for FY 2022/23. Compliance with national standards for water collection points- rural water was 55.0% against the PIAP target of 80% for FY 2022/23. Compliance with national standards for water collection points- urban water was 71.0% against the target of 90% FY 2022/23.

Table 10: Water Resources Management Outcome Indicators

Outcome	Indicators	Baseline	Achievements		Target
			2021/22	2022/23	2022/23
Increased compliance with all water permit conditions	Compliance to groundwater abstraction (%)	76	76.8	76.8	77
	Compliance to surface water abstraction (%)	78	78.4	78.6	79
	Compliance to wastewater discharge (%)	63	65.3	65.6	64
Enhanced water quality management	% water samples complying with national standards for wastewater discharges	30	33.4	47.0	68
	% water samples complying with national standards for water bodies (major lakes)	ND	78	82	80
	% water samples complying with national standards for water collection points- rural	41%	62.3	55	80
	% water samples complying with national standards for water collection points- urban	60	77.2	71	90

Source: DWRM/MWE. ND denotes No Data.

3.3 Progress on the interventions

3.3.1 Improve coordination, planning, regulation, and monitoring of water resources at the catchment level

3.3.1.1 Develop and implement integrated catchment management plans for water resources catchment areas

(i) Develop Catchment Management Plans

Catchment Management planning is key in promoting integrated planning, development, and management of water and related resources. The plans, when completed, provide for coordinated and holistic management and development of water resources with the active participation of all stakeholders. The plans largely facilitate the reversal of catchment degradation, increase ecosystem resilience and productivity, and improve community livelihoods/ socio-economic development.

During this FY 2022/23, the preparation of 4 Catchment Management Plans of Nyamugasani, Kafu, Akweng, and Sezibwa was initiated, and the plans are at 55% progress level. Specifically, Water Resources Assessments (WRA), Strategic Social and Environment Assessments (SSEA), and Stakeholder Engagements have been completed and the reports validated and approved. The development of these Catchment Management Plans is a multi-year activity, and final outputs are expected in FY 2023/24. Relatedly, four (04) micro catchment management plans for Nsooba-Walumwany, Matanda, Kabuyanda, and Mutunda micro-catchments were finalized and ready for implementation.

(ii) Water management measures implemented in priority sub-catchments

a) Implement water management measures in priority sub-catchments

The CMPs identify critical issues, challenges, and threats within the catchments that need to be addressed to ensure the socio-economic development of the people. Guided by these key issues, challenges, threats, opportunities, key water resources planning principles, and national strategies, a number of water management measures have been implemented in several catchments, sub-catchments, and micro-catchments of Awoja, Aswa I, Maziba, Aswa II, Kochi, Mpanga, Nyamwamba, Middle/Lower Awoja, Nsooba-Walumwany, Lwakhakha, Rwiizi, Kantonga, Nile-Lumbuye and Kiiha catchments. These measures include:

- 17 Tree Nurseries have been established, each with a minimum capacity of 90,000 seedlings.
- 36 Water sources have been protected through water source protection measures.
- 2,016.7Ha of degraded land have been restored through afforestation
- 37.4km of river banks have been stabilized through demarcation and planting of papyrus.
- 395,035 tree seedlings have been distributed to the beneficiary communities for growing, and planting is ongoing
- 641 cook stoves have been constructed
- 500ha of degraded areas have been restored through farmer-managed natural regeneration, river bank management, tree planting, and demarcation using live markers
- 5Ha of degraded wetlands in the Nsooba-Walumwany micro catchment restored with support from the commercial flower farms and GIZ under a stewardship model.
- 53km of the degraded sections of (Adoka wetland in Ngora District, 11km and 42 along Lake Wamala in Mityana District) were demarcated.



Photo 3-1: Tree nurseries established in Aswa II sub-catchment



Photo 3-2: Soil and Water conservation structures established in Aswa II sub-catchment

Community sanitization meetings, trainings, and other engagements on water resources management were held as follows:

- 820 community members have been mobilized, and awareness has been created on the advantages of controlling soil erosion/ floods through harvesting and biophysical measures in the different villages.
- 2871 community members have been mobilized and sensitized on the importance of river bank protection, restoration, and management.
- 379 households were mobilized and sensitized to engage in tree-growing initiatives, while 385 households were trained in tree growing and forest management for restoration.
- 371 community members were mobilized and sensitized on the importance of river bank protection, restoration, and management
- 490 community members (94 Females & 96 Males) were mobilized and raised awareness on the importance of wetland protection, restoration, and management to ably participate in the restoration process.
- 220 stakeholders have been trained in water and natural resources management, with 37% women representation.
- 5 trainings on construction of soil and water conservation structures and establishment of nurseries have been conducted
- 90 nursery bed community members were trained in nursery establishment

b) Construct water management infrastructure in the form of small water harvesting check dams, soil and water conservation structures, percolation pits, gully plugs

A number of water management infrastructure in the form of small water harvesting check dams, soil and water conservation structures, percolation pits, gully plugs have been constructed in various catchments in the country. The specific outputs delivered include:

- 40 small water harvesting structures in of check dams, percolation, gully plugs and infiltration pits, have been constructed
- 939.6ha of soil and water conservation structures have been established. The structures range from hedge rows, stone bunds, soil bunds, percolation trenches, grass strips, and diversion drains.

c) Identify stakeholders to benefit from income-generating and livelihood opportunities and establish a revolving fund to help them implement income-generating and livelihood activities.

1. 11,424 community members have been trained and sensitized on benefits of the revolving funds, income-generating activities, Water and Environment Cooperatives (WECS) governance, and management training for the WECS leadership committees to facilitate them to manage the fund and select enterprises that are profitable.

2. 400 stakeholders have been identified and supported to benefit from alternative income-generating activities in Kabambiro, Kabuga, and Karangura sub-counties in the Mpanga catchment and other areas.
3. 1,075 bee hives have been distributed and colonized by bees.
4. 8 irrigation kits have been supplied to farmer groups to support horticulture activities
5. 8 fishponds have been constructed and stocked with fish fingerlings in a bid to promote aquaculture.
6. 8,034 improved Energy efficient cook stoves have been produced by various groups so as to reduce encroachment on forests in search of firewood.
7. 34,000 fruit trees have been planted in various catchments so as to improve the livelihoods of communities.
8. 10 Community Environment Conservation Fund Groups (CECF) groups have been formed in Nsooba-Walumwanyi micro-catchment covering Mpigi and Wakiso districts. Each group has been given 10 million shillings in the form of revolving funds. The groups have had their capacity built in fund management, bookkeeping, and business development skills.
9. UGX 1,314,535,371 has been disbursed to thirteen (13) Water and Environment Cooperative Societies (WECS) out of 14 formed comprising of project-affected persons (PAPs) to engage in alternative livelihood options that do not destroy the environment in some of the restoration sites.



Photo 3-3: Beehives installed at Aojakwap WEC Group Apiary site attached to Adungo riverbank



Photo 3-4: Left: Agricultural Officer inspects the sunflower seeds and Taplins supplied to Olupe Opong riverbank.

d) Develop Water Resources Development and Management strategies at the Water Management Zone level

Water Resources Development and Management strategies are needed per Water Management Zone to guide strategic planning and development of water and related resources in the zone. So far, the strategy for the Upper Nile Water Management Zone has been developed, while the strategy for the Albert Water Management Zone is under development. The Albert WMZ has a high potential for Hydropower generation and water supply through gravity-fed systems. Existing schemes in the Albert WMZ face significant seasonal fluctuations in water quantity, poor water quality, and landslides, which occasionally destroy or sweep away systems. The water demand in the Albert WMZ is expected to grow, given the expected increase in oil production investments. The strategy shall lay the foundation for long-term sustainable water management and development by supporting a participatory integrated water management and development planning process at the catchment level.

During the FY 2022-2023, the development of the Albert Water Resources Development and Management strategy commenced and is currently at 30% progress. The Diagnostic/Situational

Assessment has been completed and the report was reviewed by the ministry, and comments provided to the consultant are currently being addressed.

e) Develop and implement water source protection plans, including delineation of water towers and protection zones

Water source protection focuses on maintaining the catchment around a water source to ensure reliable quantity and improved quality while providing improved livelihood opportunities to the people in the catchment around the water source. During the reporting period, twelve (12) Water Source Protection Plans, mainly for hydropower developers, were developed by water infrastructure developers and submitted to DWRM for approval before implementation. Supervision of the implementation of the prepared plans for hydropower plans is ongoing in a bid to ensure that the threat that could affect the reliability of the various dam infrastructures in hydropower generation is minimized.

f) Establish demonstration centers, including the construction of demonstration plots in various catchments to demonstrate innovative catchment management measures

During the reporting period, MWE supported the National Agricultural Research Organization through its research institute based in Serere (NASARRI) in the Awoja catchment of Kyoga Water Management Zoneto make improvements in the renovated conference hall and on the constructed 3-STANCE water-borne toilet block. The works included the installation of the water harvesting tank, the installation of the conference hall furniture (conference tables), and the painting of the toilet block. This is part of the support to establish a demonstration center for ecosystem restoration.



Photo 3-5: Completed Toilet block and Conference Hall

Additionally, a nursery bed was set up at NASARRI, and seedlings were used to establish a woodlot. Both the nursery and the woodlot have been used as demonstrations during training on ecosystem conservation in Awoja catchment. As a result, two thousand five hundred (2500) tree seedlings of different species have been germinated and used to gap-fill the destroyed seedlings in the established woodlot. The seedlings include Mahogany, citrus, and Musizi.



Photo 3-6: Left - the constructed nursery bed shade and photo plate. Right - the established woodlot intercropped with soya beans



Photo 3-7 Left- the established tree nursery, Centre- part of the wetland demonstration sites,

g) Review and amend the National Water Policy and Act to address new developments, dam safety, and challenges

During the reporting period, the review of the National Water Policy was finalized and the draft revised policy was submitted to the Cabinet, which reviewed it and made comments for action. The issues that the Cabinet requested that should be clearly highlighted in the policy are the importance of water, main sources of water, uses of water, measures to provide water for different uses, how to protect water sources, dangers of encroaching on the water sources and mechanisms to address encroachment. The comments were incorporated in the draft, after which it was submitted to the Cabinet for approval. Before the final approval of the policy, the Cabinet requested that a financing strategy for the policy be developed to ensure that what is approved is implemented. Preparation of the financing strategy is ongoing and is expected to be submitted to the Cabinet for approval by the end of November 2023.

h) Hold meetings of the Water Policy Committee and Technical Sub-Committee

During the reporting period, 3 Water Policy Sub-committee meetings to revise the National Water Policy were held.

3.3.1.2 Water resources data (Quantity and quality) collected and assessed

Undertake water resources assessments (baseline and monitoring data)

Three (03) Groundwater resources assessments have been conducted. These include 02 assessments for Aswa and Manafwa micro catchments in Upper Nile and Kyoga water management zones, respectively, that have been completed, as well as the National Groundwater study, which is at 40% progress. The consultant completed the inception phase, finalized the Data Gap and Baseline Assessments, and submitted the draft groundwater resources availability and demand assessment report that was reviewed by both MWE and the World Bank.

3.3.1.3 Joint Transboundary Catchment Investment Projects Prepared

a) Feasibility studies and detailed designs undertaken and packaged into bankable investment projects

The pre-feasibility study for “Multinational Lakes Edward and Albert Basin Management and Investment Project” was undertaken and packaged into a bankable investment project. Uganda and DR Congo jointly prepared the project with the goal to “ensure a sustainably managed and well-serviced lakes Edward and Albert basin for improved incomes, shared economic growth and reversed environmental degradation.”

The proposed project will promote transboundary cooperation between Uganda and DR Congo on the shared waters while minimizing resource-based conflicts, reducing water and environmental degradation, contributing to food and energy security, promoting trade, promoting maritime and navigation safety on the lakes, and promoting sustainable utilization of fisheries, among others.

The joint project is drawn from the identified priorities in the completed Lakes Edward and Albert Basin Strategic Investment Plan (LEAB SIP), the completed Catchment Management Plans, other ongoing project studies and surveys, any new emerging issues in the basin such as floods, and lessons learned

from past and current project phases. A number of lessons were learned while implementing the previous phase, particularly public consultations and community participation, which have been critical in the preparation of the successor project.

b) Frameworks for the development, management, and operation of joint projects developed

The Lakes Edward and Albert Basin Strategy and Investment Plan (LEAB SIP) was developed, which culminated from a study of “Preparation of the Lakes Edward and Albert Integrated Basin Management Plan” undertaken by the Multinational Lakes Edward and Albert Integrated Fisheries and Water Resources Management (LEAF II) Project through financing from the African Development Bank.

The LEA SIP was prepared drawing from key issues identified from the basin situational analysis and the resultant priority thematic sub-plans in the areas of Water resources management (incl. environmental monitoring, watershed and wetland rehabilitation, pollution management), Fisheries resources and aquaculture, Agriculture and livestock, Navigation and maritime safety, Invasive aquatic weeds control, Hydropower and electrification, and Strategic basin infrastructure. The objective of the LEAB SIP is to provide a clear, agreed management and sustainable development strategy for the water and associated natural resources of the LEAB for the next 30 years (i.e., 2023 – 2053).

c) Support to national, transboundary, and international Obligation (NBI, AMCOW, WPC)

Nile Basin Initiative (NBI)

- The national consultations to provide input to four (04) strategic and pre-investment documents under the Nile Basin Initiative cooperative framework have been facilitated. These include The Strategic Water Resources Analysis, the Nile Basin Management Plan, the Nile Basin Investment Plan, Shared Aquifer Diagnostic Analysis (SADA) for Mt. Elgon and Kagera Aquifers.
- Inputs to the detailed design reports and tender documents for the Angololo transboundary project have been reviewed, and technical support has been provided. The others are the Environmental and Social Impact Assessment and the Resettlement Action Plan for the Angololo Multipurpose Water Development Project between Uganda and Kenya. The project has now been packaged into a bankable project where several donors, including AfDB, World Bank, GIZ expressed interest in financing its implementation during the Donor Roundtable meeting that was organized in February 2023 in Nairobi-Kenya.
- Actively participated in the NBI groundwater project action plans inception meeting that took place in Nairobi-Kenya. Action plans for the Mt. Elgon and Kagera Aquifers have since been developed, and these will guide the actions for the management and development of the 2 shared aquifers.
- Supported active participation of Uganda in regional cooperative meetings and joint stakeholders’ fora, ie. the 30th Nile Council of Ministers (Nile-COM) meeting in Dar es Salaam, Tanzania. A number of technical documents (Nile River Basin Management Plan, Nile River Basin Investment Programme, Nile Basin Wide Programme II (2022-2027), NBI Transboundary Policy, NBI Wetlands Management Strategy) were reviewed and approved.
- The department actively participated in the NELSAP/NBI mission for the flash floods and early warning systems. The team undertook field trips to flash floods-prone areas of Mbale and Sironko that is aimed at piloting of the flash floods and early warning systems in the region.
- 3 officers participated in the training for Negotiation Skills and Conflict Resolution for the Nile Basin countries. Officers’ skills in Negotiation and Conflict Resolution in Trans-Boundary Water Cooperation were greatly improved and enhanced.
- There has been active participation in the African Water Facility (AWF)-Donor Round table meeting to mobilise financing for the implementation of the Nyimur/Limur multi-purpose project between Uganda and South Sudan.

African Ministers Council on Water (AMCOW)

- 2 officers were trained on the Pan African Water Supply and Sanitation Monitoring and Reporting System (WASSMO). The country AMCOW-WASSMO report was compiled and submitted to the AMCOW Secretariat for integration and further processing.
- The ITWA Department, in collaboration with FAO, has been participating in the preparation for the Ground Water for Resilience project. The draft project document was prepared and submitted to the Global Environmental Facility (GEF) for funding/financing.

3.3.1.4 Establish functional gender-sensitive regional and zonal management committees for water resources

Constitute and operationalize gender-sensitive water Catchment Management Committees

5 Catchment Management Committees and 1 micro-catchment management committee with various levels of representation of females were formed as follows: Nyamugasani [20 members; 17 males and 03 females], Kafu [37 members; 28 males and 09 females], Akweng [33 members; 29 males, 04 females], Ssezibwa (39 members; 31 males and 08 females), Nsooba-Walumwany Micro catchment [34 members; 21 males and 13 females] and Kabuyanda micro catchment [25 males and 3 females].

3.3.1.5 Ensure effective early warning and early action for sustainable, efficient utilization of water resources

Undertake operation and maintenance of all manual monitoring stations

The MWE operates and maintains a hydrological network of surface water stations on all major open water bodies, groundwater stations for aquifers, and a limited number of strategic rainfall stations. The network has a total of 172 stations, of which 75 are groundwater (September 2023), and 97 are surface water.

With the support from GIZ/EU administered through the Nile Basin Initiative (NBI), 15 surface water telemetry stations were constructed. UNICEF supported the set-up of 10 groundwater telemetry stations within the Karamoja area.

Groundwater Monitoring

Figure 3 presents the performance of the groundwater monitoring network by quarter. The total number of groundwater stations is 75, out of which 44 have data as of June 2023. The performance of the groundwater network was about 51% in the first 2 quarters of the year and improved slightly to 62% during quarter 3 and 68% during quarter 4. The performance was affected by a lack of funds to carry out timely routine data collection and station operation and maintenance, as well as a lack of monitoring of springs, which are the sources of gravity flow schemes and the distribution of monitoring stations.

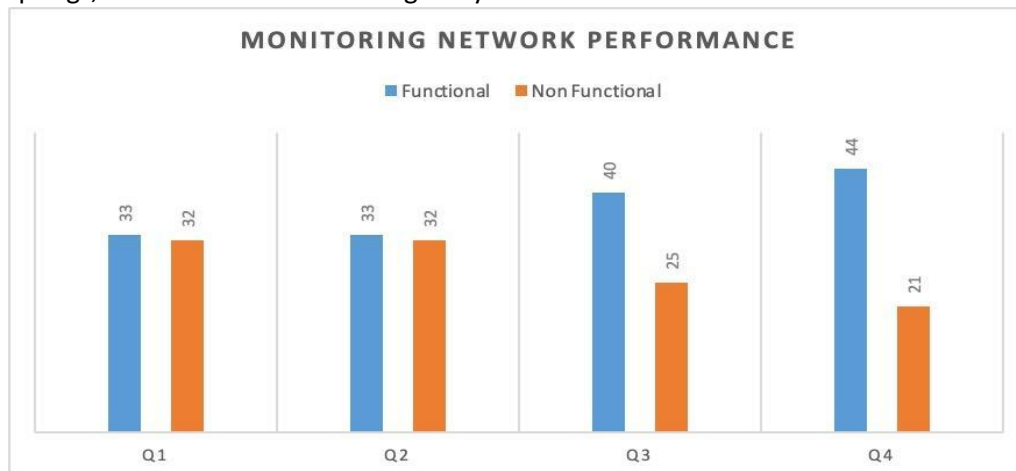


Figure 3: performance of groundwater monitoring network

Water Resources Data and Information Management

The availability and analysis of hydrological information supports the design of more reliable and sustainable infrastructure, more efficient hydropower production, sustainable irrigation systems, and maintenance of the environment. During the reporting period, hydrological data was collected and assessed for the purposes outlined below.

- Development of the Nile Water Optimization tool, which would ensure adequate and seamless hydropower supply from Uganda’s major hydropower dams along the river Nile.
- Other contributions made to the energy sector included hydrological assessments for the design of power plants within the Albertine region.
- Variations in the water levels for Lake Albert and Victoria Nile systems were used to inform the design of sustainable infrastructure in the Tilenga project area.
- River flow and groundwater level data drawn from monitoring stations and groundwater source points within the Albertine Graben was produced to update the sensitivity atlas of the Albertine Graben. The atlas is an important tool used to safeguard water resources from contamination and overexploitation through oil and gas-related activities.
- Plans and designs for the Infrastructure Development Plan (IsDP) for the West Nile Region were informed by flow data from Rivers Anyau and Oru.
- Designs for water supply systems in the Madudu sub-county Mubende district.
- Water abstraction along rivers Sezibwa, Sironko, Katonga, and Waki.
- River flow data informed the design of the Kampala Jinja Expressway).
- Groundwater level and river flow data were used in the development of catchment management plans for Sezibwa, and Akweng catchments.
- Preparation of Physical Development Plans for Refugee Hosting Districts 2022-2040

3.3.1.6 Availability of adequate quantity and quality of water resources for all consumptive water uses assured

a) Ensure the availability of adequate quantity and quality of water resources for all consumptive water uses through Water abstraction, wastewater discharge, and water services regulated through permits.

(1) Compliance with water abstraction and wastewater discharge permit conditions

Compliance refers to the percentage of water abstraction and discharge permit holders complying with permit conditions. The permit conditions considered are: a) compliance to water abstraction volume measures set by the MWE, and b) quarterly submission of data on compliance to permitted water abstraction and wastewater discharge standards, including possession of wastewater treatment facilities.

Table 11 presents the permit type and conditions, number of permit holders, and proportion of compliant permit holders in FY 2022/23. Overall, 238 permit holders of groundwater and surface water abstraction, and wastewater discharge were inspected, and 72.5% were found compliant.

Table 11: Compliance with water abstraction and waste discharge permit conditions FY 2022/23

Permit Type	Permit condition	Permits Holders inspected	Permits complying	Compliance (percent)
Groundwater	Abstracting within the permitted amount	110	80	73
Surface water	Abstracting within the permitted amount	98	76	77.6
Wastewater discharge	Effluent discharge	30	20	67
Total		238	176	72.5

Figure 4 depicts the trend of monitoring compliance with permit conditions over 9 financial years. There was an increase in the number of permit holders monitored from FY 2014/15 to FY 2019/20. However, there is a substantial reduction in the number of permit holders inspected from FY 2020/21 to FY 2022/23. This is attributed to challenges associated with the COVID-19 pandemic outbreak and the resultant lockdowns, and inadequate funding for compliance and enforcement activities. With the end of COVID-19 pandemic and hopefully improvements in the economic situation in the country, compliance monitoring is expected to go back to levels of the previous years or even higher.

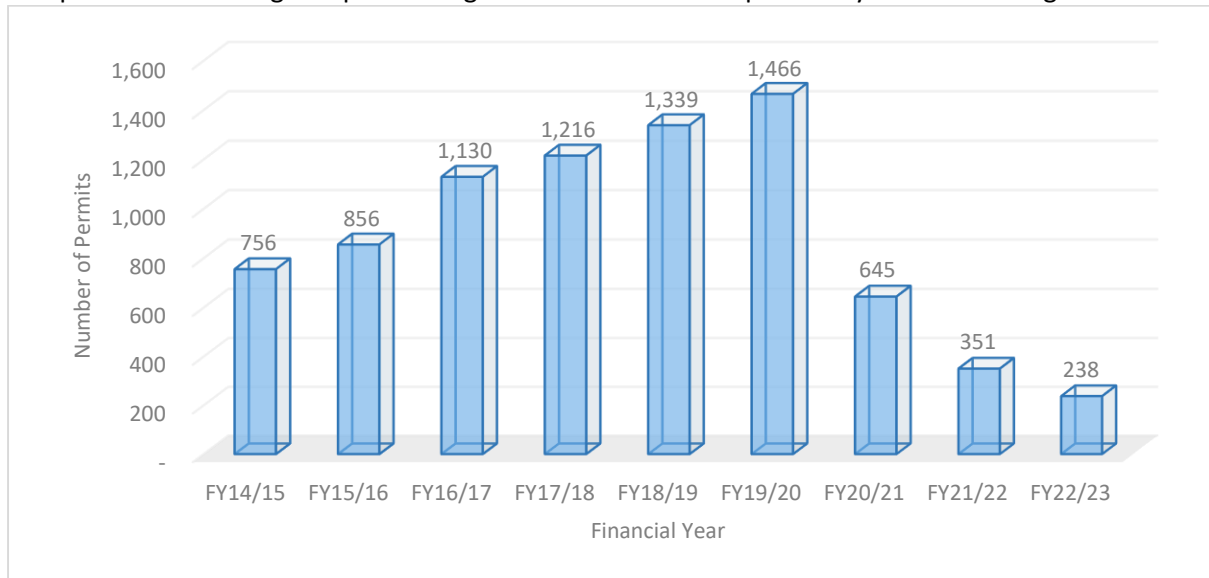


Figure 4: Trend of monitoring Permit Holders over the past 9 FYs

Applications for water abstraction and wastewater discharge permits

Overall, 419 permits (245 new and 174 renewal) were issued in FY2022/23 compared to 374 permits issued in FY 2021/2022. This represents a 12.03% increase in permits issued. This could be an indication of improved awareness about the importance of applying for water permits as well as increase in development of water resources for different purpose.

New permit applications

During FY 2022/23, 234 new applications for permits were received, and 245 new permits were issued. The permits issued were higher than the new application because of the backlog of applications carried forward from FY 2021/22. Some applications were not approved due to a lack of required information like water source details, evidence of payment of permit processing fees, and clearance from water supply authorities within urban areas. Details of the applications received and issued are presented in Table 12.

Table 12: Permits applications received and issued in FY 2022/23

S/N	Type of applications	Received	Issued	Percent
1	Groundwater	104	113	108.7
2	Surface water	84	89	106
3	Construction	24	25	104.2
4	Wastewater	18	13	72.2
5	Drilling	03	05	166.7
	TOTAL	234	245	111.42

Renewal permit applications

A total of 242 applications for renewal of permits were submitted, out of which 174 (74%) permits were renewed. Some of the permits were not renewed because of non-compliance with permit conditions,

including (i) submitting self-monitoring data for abstraction and/ or discharge, (ii) non-payment of annual water use fees, and (iii) delayed or non-response to compliance issues raised.

Table 13: Summary of renewal permit applications received and issued for FY 2022/2023

S/N	Type of applications	Received	Issued	Percent
1	Groundwater	64	38	59.3
2	Surface water	59	63	106.7
3	Construction	00	0	0
4	Wastewater	45	31	68.8
5	Drilling	60	58	96.6
	Total	228	190	66.28

Figure 5 shows the trend of receipt of permit applications and issuance of water permits over the past 10 financial years. There was a spike in increase in the number of applications for new and renewal of permits in FY 2018/19 and a decline in FY 2019/2020. The decline in FY 2019/2020 was due to the outbreak of the COVID-19 pandemic, which necessitated a national lockdown, making submission and assessment of permit applications difficult. However, an improvement has been registered from FY 2020/2021 to FY 2022/2023, and this has been attributed to continuous awareness campaigns undertaken alongside other engagements by the staff of MWE, continuous inventory management, and mapping of potential water permit holders.

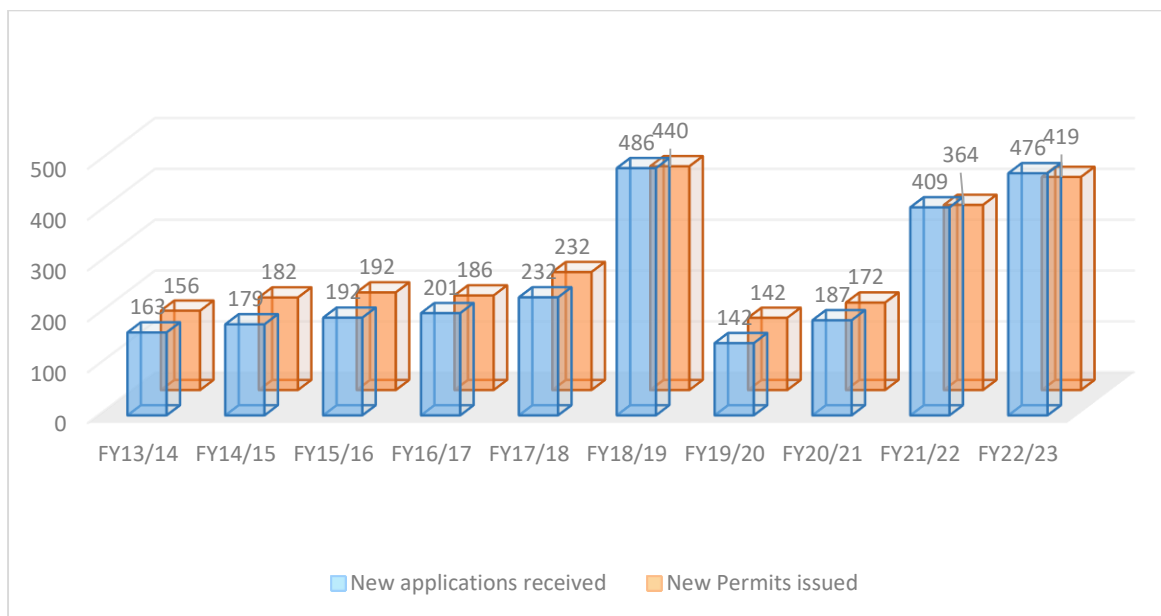


Figure 5: Trend of applications and issues for water permits over the past 10 FYs

Regulation of borehole drilling in urban areas

To regulate the increasing demand for private boreholes in urban/gazette water supply areas, permission to drill boreholes is issued to those who apply with sufficient evidence of a need for an alternative water supply source. Thirty-seven (37) requests were received, out of which 29 were granted permission to drill boreholes in their respective sites. The reasons for the rejection of some applications included poor sanitation around the proposed drilling site, existing boreholes within the vicinity, lack of adequate justification for an alternative source of water, and lack of no objection letters from the respective water supply authority in the area.

Non-Tax Revenue Generation

During this reporting period, Non tax revenue amounting to UGX 713,756,000 (Seven hundred thirteen million, seven hundred and fifty-six thousand shillings only) was generated from permit issuance

compared to UGX 601,340,000 in FY 2021/2022. This is an increase of 16% of revenue generated in FY 2022/2023 compared to FY 2021/2022. Below is an illustration in Figure 6.

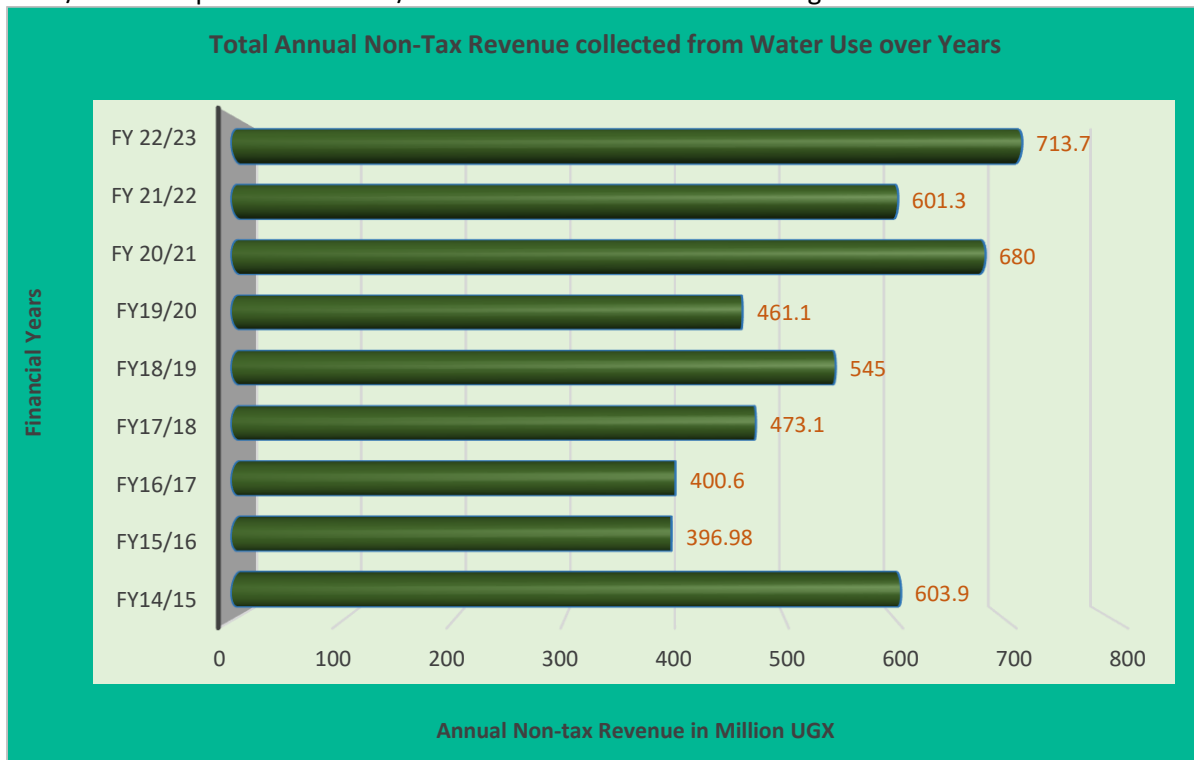


Figure 6: Trend of Non-Tax Revenue collected from water abstraction permits issuance over the past 10 FYs

b) Operational Water Environment information systems at the central level and in the 4 Water Management Zones

- The Water and Environment Information System Phase II (WEIS II) that integrates all the databases in the water and environment sector for supporting decision making has been undergoing development and the progress level is about 80%. The regional offices in Mbale, Entebbe, Mbarara, and Lira sites have been connected/integrated into NITA-U’s internet service system, and the system is operational. Other works undertaken as part of operationalizing the WEIS include the repairs, expansion, and upgrade of the computer network for Mbale, Mbarara, Fort Portal, Lira regional offices, and Entebbe; the server Hardware has been installed; beta testing for Assets Management system, Permits Management Portal, Dam safety system and Business intelligence dashboards is ongoing.
- Database modules for Wetlands Management DB, Forestry Sector Support Department DB, Borehole DB, spatial data DB system, and document management system have been completed and handed over.
- WEIS is expected to be handed over to the users by mid November 2023 for testing for 3 months to enable identification of any snags that need to be addressed before formal handover.

3.3.1.7 Operational status and outlook hydrological system

a) Conduct selected Catchment Water Resources Assessments

Groundwater Assessments

Table 14 presents the groundwater assessment activities conducted during the FY 2022/23.

Table 14: Groundwater assessment activities conducted in FY 2022/23

Item	Description	Output	Remarks
1	Diagnostic assessment of two (2) Transboundary (shared) Aquifers	Shared Aquifer Diagnostic Assessment – Baseline report on Mount Elgon Aquifer prepared Aquifer-level Consultative workshop conducted	Aimed at enhancing knowledge and understanding of the aquifer to inform sustainable development of the groundwater resource. This is especially by promoting conjunctive utilization of surface water and groundwater.
		Shared Aquifer Diagnostic Assessment – Baseline report on Kagera Aquifer prepared Aquifer-level Consultative workshop conducted	
2	Groundwater assessment for Mubende district to understand the Mubende monitoring well field	Groundwater availability report	Aimed at mapping groundwater occurrence in the district
3	Initiating basic area-based groundwater resources assessment in the water management zones (wmzs)	Apeduru-Apapai micro catchment-KWMZ, Ore micro catchment UNWMZ, Nakivaale micro catchment VWMZ report	Basing groundwater management on an understanding of the characteristics of the groundwater systems.

Hydrological Assessments

Lake Victoria

The assessment involved estimating the residual Net Basin Supply (NBS) into the lake during the FY 2022/2023 and evaluating its impact on lake levels. Figure 7 presents the hydrograph, which shows:

- Higher inflows were received during the March-April-May (MAM) season.
- More inflow received in 2023 than in the previous two years of 2022 and 2021.
- Unlike the past two years of 2021 and 2022, there was some inflow received in 2023 during June.
- High values of NBS were observed in November and December 2022. These high values influenced the NBS values observed in 2023 during MAM.

The information revealed by the NBS during different rainfall seasons, along with its impact on lake levels, provided basis for regulating the outflow from Lake Victoria during 2021/22. The impact of regulation is demonstrated in the hydrograph of Lake Victoria in Figure 7, which depicts a declining trend in lake levels from May 2023. As an outcome of proper management of Lake Victoria, there was no lake shoreline flooding on all three major lakes of Victoria, Kyoga, and Albert.

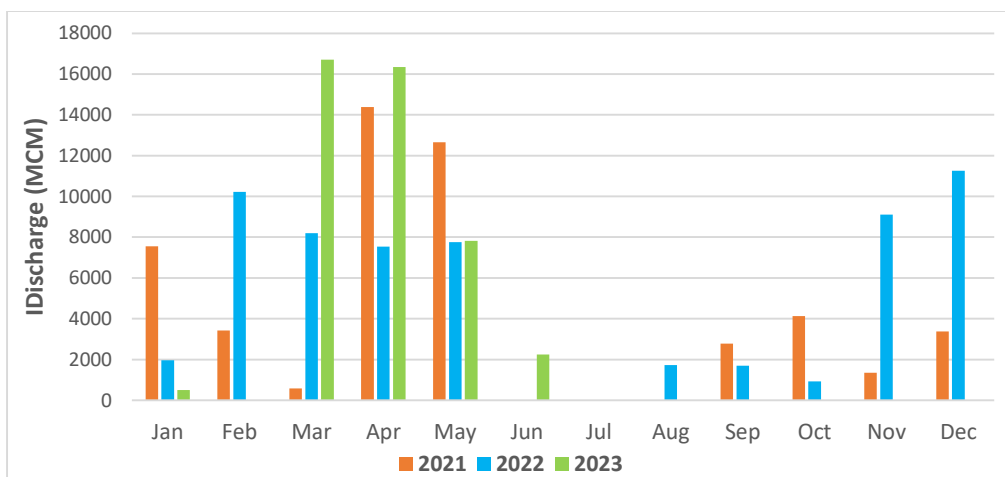


Figure 7: Monthly Net Basin Supply for FY 2022/23

The outcome of the management of Lake Victoria was regular advisories of the outflow from Lake Victoria, and intensified monitoring of lake levels using real-time instrumentation resulted in a regulated drop in levels that are well below the historic maximum recorded level. Although on a declining trend, the levels are high enough and, have continued to sustain water supply systems and have allowed optimal production of hydropower. Furthermore, several socio-economic activities previously affected by the high lake levels have continued to thrive. Figure 8 depicts Lake Victoria water levels in FY 2021/22 and FY 2022/23.

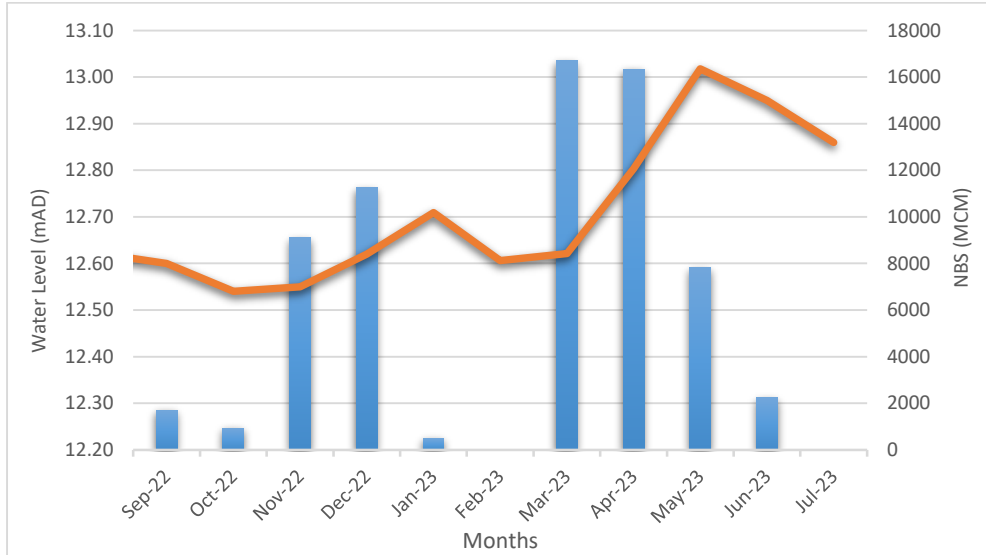


Figure 8: Comparison of NBS and Mean Monthly Levels for (Sept 2022-July 2023)

Lake Kyoga and Lake Albert

A declining trend in water levels of Lake Kyoga and Lake Albert was observed due to the regulation of Lake Victoria outflows (figure 9). Water supply systems and run-of-river hydropower systems continued to operate well. There was a significant reduction in lake shoreline flooding since most land previously submerged is now dry ground.

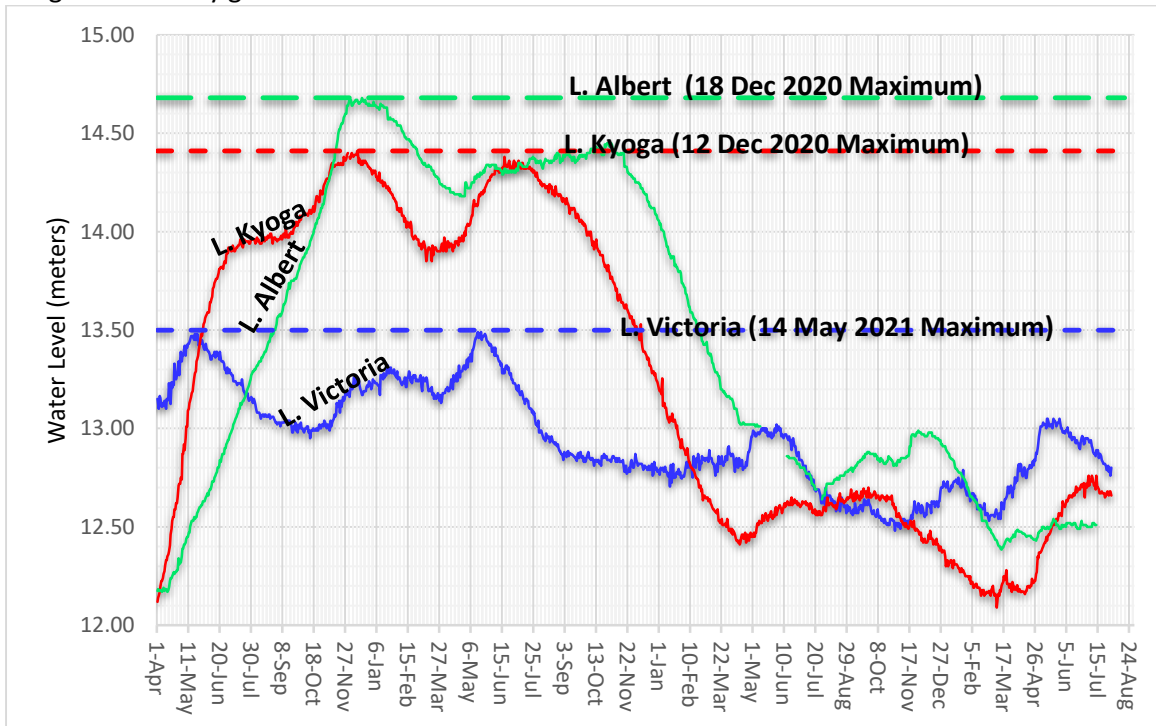


Figure 9: Lakes: Victoria, Kyoga, and Albert Water Levels from 2019 to 2023

ESIA for water-related projects reviewed

Environmental and Social Impact Assessments for water-related projects reviewed

As a lead agency on environmental issues related to water resources, DWRM receives and reviews Environmental Impact Assessment (EIA) reports for water resources-related projects and provides advice to NEMA regarding approval or non-approval. During the reporting period, 13 EIAs were received and reviewed, and comments sent to NEMA for further communication to the developers.

3.3.1.8 Maintain natural water bodies and reservoirs to enhance water storage capacity to meet water resource use requirements

a) Survey and Demarcate banks of natural water bodies and reservoirs and river banks

During this reporting period, a number of activities have been undertaken to maintain natural water bodies and reservoirs to enhance their water storage capacity to meet water resources needs and ensure that they perform their water conveyance functions. This was undertaken by cleaning the water bodies and demarcating the banks of these water bodies and reservoirs so that they are protected from encroachment.

As part of this work, emergency maintenance works for R. Nyamwamba were undertaken following the floods of 2021, and the following have been achieved.

- i. Ground Investigation, including survey and laboratory tests, were undertaken
- ii. Earthworks (River Maintenance/ Desilting by excavating silt, breaking, and removing boulders) is at 97% completion level
- iii. Hauling and filling embankments with excavated rock is at 96% completion level
- iv. Protecting vulnerable/weak river sections with cyclopean concrete and gabions is at 99% completion level



Photo 3-8: Emergency maintenance works for R. Nyamwamba

In addition, 7.4 km of riverbank areas within the river catchments of Sebwe in Kasese District, Tokwe in Bundibugyo District, and Semliki in Ntoroko District have been protected and restored. This has generated significant positive environmental and social impacts through the promotion of ecological integrity of the river's natural resources and ensuring sustainable livelihoods. The positive impacts of the activities included (i) reduced siltation and sedimentation of the rivers; (ii) improved water quality in the rivers, and (iii) restored and protected watersheds/catchments and river' buffer areas.



Photo 3-9: Restoration of the midstream section of river Sebwe in Kasese District

Furthermore, 63 km along River Mpanga buffer zone protection areas in Kahunge, busiriba, Kabuga, and kabambiro sub-counties have been demarcated and planted with pillars.



Photo 3-10: Communities participate in demarcating Adoka wetland during ecological Boundary assessment and planting of live marker

b) Dam Safety, Reservoir Regulation, and Hydraulic Infrastructure Management

Dam Safety, reservoir regulation, and hydraulic infrastructure management is undertaken to ensure that the water-related infrastructure is safely operated and optimally operated and managed. As part of this work, the following was done:

- 5 major hydropower dams (Nalubaale, Kiira, Bujagali, Isimba, and Karuma) were inspected on a quarterly basis to ensure safe operations and functionality of the spillway components and safety instrumentation given the maximum warning levels as well as determine the extent of the implementation of emergency plans.
- 13 mini hydropower plants (Kikagati, Mubuku 1 HPP, mubuku 3 HPP, Bugoye HPP and Kyambura HPP, Siti I HPP, Siti II HPP, Achwa I HPP, Achwa II HPP, Mpanga HPP, Nkusi HPP, Kabalega HPP, Mahoma HPP, Rwimi HPP, Kakaka HPP, Nyamagasani I HPP, Nyamagasani II HPP, Lubiliha HPP, Nyagak I HPP, Kisizi HPP, Ishasha HPP, etc.) were inspected to ensure that the minimum environmental flows are adhered to in view of competing water uses and ecosystem conservation.

3.3.2 Water Quality Monitoring

Introduction

The Water Quality Management Department (WQMD) has the overall mandate of management and regulation of water quality in Uganda. This mandate is fulfilled through:

1. Operating a country-wide issue-based Water Quality Monitoring Network (NWQMN) and;
2. Operating a three-tier pyramid laboratory system with a National Water Quality Reference Laboratory (NWQRL) at Entebbe at the apex, supported by four Regional Water Quality Laboratories (RWQL) in each of the four Water Management Zones (WMZs), in the middle, and Basic Laboratories (BL) at water treatment plants, at the bottom.

National Water Quality Monitoring Network

The NWQMN is an issue-based network comprising over 152 stations for monitoring the impacts of human activities on drinking water sources, surface water, and groundwater quality. This is reported as:

1. Compliance of drinking water supplies with national standards for Potable (drinking) water and SDG indicator 6.1.1.
2. Compliance of municipal and industrial discharges with national standards for wastewater discharge and SDG indicator 6.3.1 and;
3. Proportion of water bodies in Uganda with good ambient water quality, which is SDG indicator 6.3.2.

Progress on Programme Implementation Action Plan (PIAP) of NDP III performance indicators

Table 15 presents achievements based on water resources management performance indicators as outlined in the Programme Implementation Action Plan (PIAP) of NDP III.

- Compliance with wastewater discharge standards was at 47.0% against a target of 68%.
- Compliance with drinking water standards for improved point water sources in rural area was 55.0% against a target of 80%.
- Compliance with drinking water standards for piped water in urban areas was 71.0% against a target of 90%.

Table 15: Water resources management performance outcomes and indicators

Outcome	Indicators	Baseline		Achieved			Target
			2020/21	2021/22	2022/23	2024/25	
Enhanced water quality management	% of water samples complying with national standards for wastewater discharge	30	48.2	33.4	47.0	68	
	% of water samples complying with national standards for water bodies (<i>improvement in indicator is attributed to improved data coverage rather than improvement in quality</i>)	ND	ND	78	82	80	
	% of water samples complying with national standards at water collection points- rural area	41%	62.2	62.3	55	80	
	% of water samples complying with national standards at water collection points- urban area	60	90	77.2	71	90	

Compliance with National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations and Indicator SDG 6.3.1

WQMD monitors the quality of municipal and industrial wastewater discharged into water or land against the National Environment Standards for Discharge of Effluent into water or Land Regulations, 2020 and SDG 6.3.1. The monitoring indicator used is **'percentage of water samples taken at the point**

of discharge complying with National Standards for discharge of effluent into water or land Regulations, 2020’.

In FY 2022/23, a total of 259 wastewater samples were collected and analyzed compared to 302 samples collected in FY 2021/22. This represents a decline of 14.2 %. The decline is attributed to a reduction in funding for water quality data collection in FY 2022/23. Analysis of the results of wastewater quality showed an overall compliance level of 47% based on total nitrogen (TN), total phosphorus (TP), chemical oxygen demand (COD), total suspended solids (TSS), and electrical conductivity (EC). This compliance was an improvement compared to the 33.4 % achieved in FY 2021/22. The improvement in compliance is attributed to selected industries that implement Resource Efficient and Cleaner Production (RECP) techniques. However, this is still lower than the desired target of 68%. The poorly treated wastewater discharged into water bodies continues to affect the quality of the water resources, resulting in algal blooms and occasional fish kills.

The 5 top pollution sources included:

- Meat and meat products processing,
- Textiles processing,
- Sugar processing,
- Milk and milk products processing and
- Municipal wastewater.

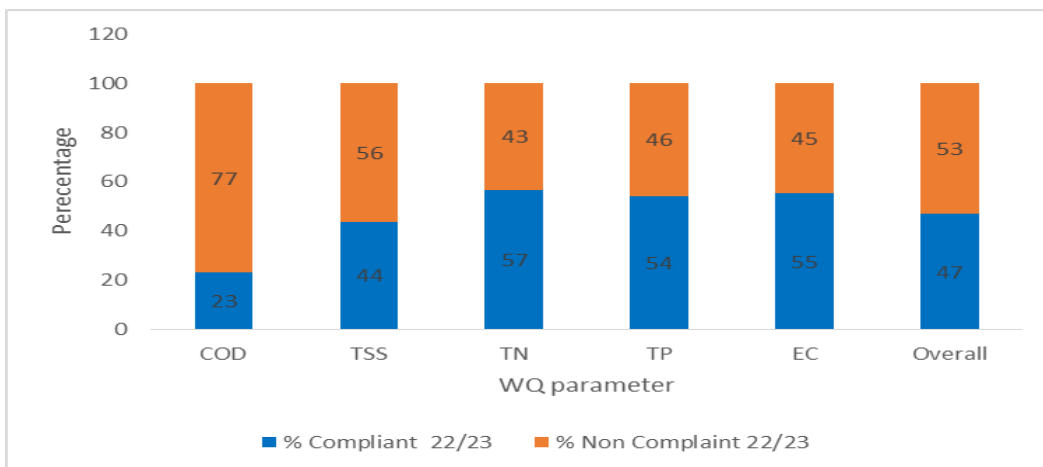


Figure 10: Compliance of Industrial and Municipal discharges

Industries in the Greater Kampala Metropolitan Area Improve Effluent Quality

It is estimated that about 80 percent of the country’s industrial sector is located in the Greater Kampala Metropolitan Area (GKMA) (Onyach-Ola 2013). To reduce pollution loads from industries, the Ministry, in partnership with the Uganda Cleaner Production Centre (UCPC) is promoting the adoption of Resource Efficient and Cleaner Production (RECP) techniques by selected industries in GKMA. In the financial year under review, a total of 56 participants from selected industries in the districts of Kampala, Wakiso, Mukono, Buikwe, and Jinja were trained in RECP techniques. Key outputs from the training were awareness creation and capacity enhancement. Adoption of RECP practices by these industries is expected to lead to improvements in water, materials, and energy efficiency, cost savings, and improvement in the quality of wastewater discharged into Lake Victoria.



Photo 3-11 Participants at the training workshop on the promotion of RECP for selected industries held at Source of the Nile Hotel, Namanve

Compliance of Drinking Water Supplies with National Standards for Potable Water (EAS 2018) and SDG indicator 6.1.1.

This indicator is based on the number of water samples picked from both rural and urban drinking water sources taken at the point of collection, complying with the national standards for Potable Water (EAS 2018) and SDG indicator 6.1.1. Rural water supplies monitored included boreholes, protected springs, shallow wells, dug wells, and rainwater harvesting systems. Urban water supplies assessed were piped water supplies, including gravity flow schemes (GFS).

Table 16: Water samples collected by Regional Laboratories

Technology option	Fort Portal	Mbale	Lira	Mbarara	NWQRL	Total	%
Boreholes	167	238	259	56	418	1,138	66.2
GFSs	06	0	0	22	0	28	1.6
Dug wells	9	4	0	25	1	39	2.3
RWH	0	1	0	1	1	3	0.2
Shallow wells	35	26	14	52	119	246	14.3
Protected springs	102	41	10	43	69	265	15.4
Total	319	310	283	199	608	1,719	100

Compliance with National Standards for Potable (Drinking) Water - Rural water supplies

In FY 2022/23, a total of 1,719 water samples were collected and analyzed from point water sources from 121 districts. This is a decline of 16% in comparison to 2,208 water samples collected and analyzed in the previous FY 2021/22. This decline is attributed to a reduction in funding for water quality data collection in the financial year under review.

The overall compliance of drinking water supplies in the rural area with respect to *E. coli* was 55%. This is a decrease compared to 62% registered in FY 2021/22. The reason for the decrease is that assessments were conducted mainly in the wet season when water quality deteriorates. The performance of 55% falls short of the PIAP indicator target of 80%, set to be achieved by FY 2024/25.

Compliance levels for various technology types were 64.7%, 36.2%, 39.2%, and 2.8% for deep wells, shallow wells, protected springs, and dug wells, respectively.

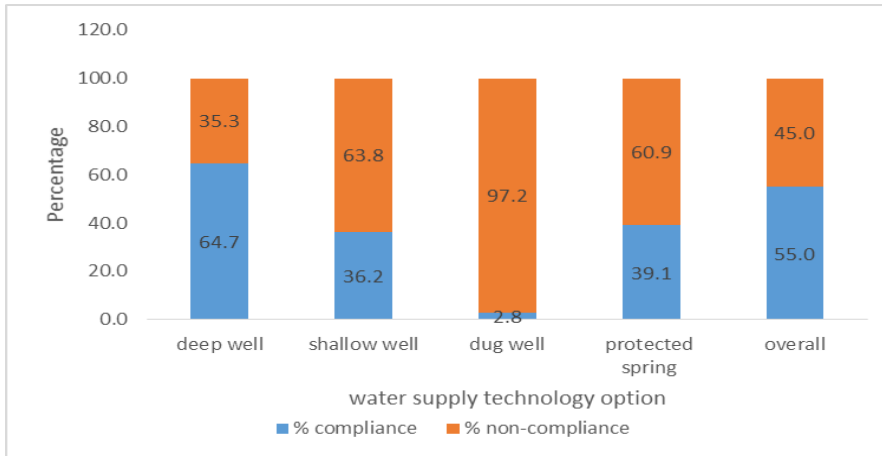


Figure 11: Compliance to E. coli based on technology type

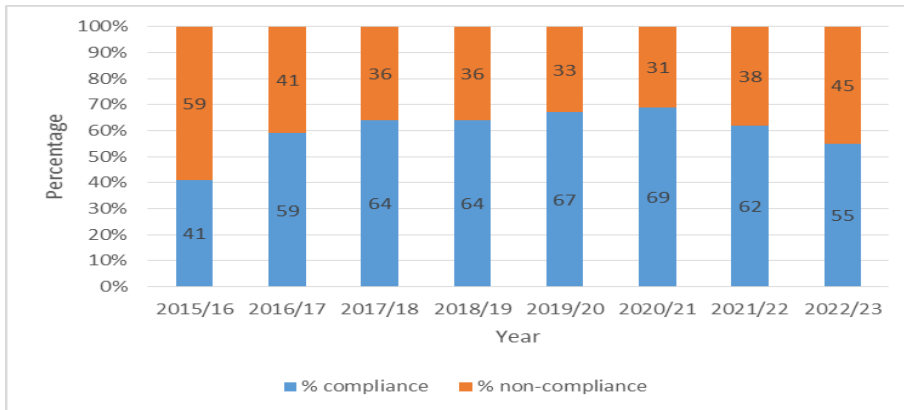


Figure 12: Compliance trend to E. coli for point water sources

Compliance with National Standards for Potable (Drinking) Water – Urban Water Supplies

In FY 2022/23, a total of 1,057 water samples were collected and analyzed from 138 piped water supply systems. This is a decline of 68 % compared to 3,319 water samples that were collected and analyzed in FY 2021/22. This decline is attributed to a reduction in funding for water quality data collection.

The overall compliance of urban water supplies to E. coli was 71%. This was a decline in comparison to a compliance level of 77% achieved in FY 2021/22. This decline is attributed to the inclusion of Gravity Flow Schemes (GFS), which is mostly untreated under the urban water supply category.

When segregated into individual urban water supply technologies, the compliance levels varied as follows: piped water (other than gravity flow systems) was at 74.3%, and GFSs performed at 44.2%. However, further analysis of the water quality trends of urban water supplies indicates no significant change in the quality of water provided by urban water supplies over the last five years, as indicated in Figure 13.

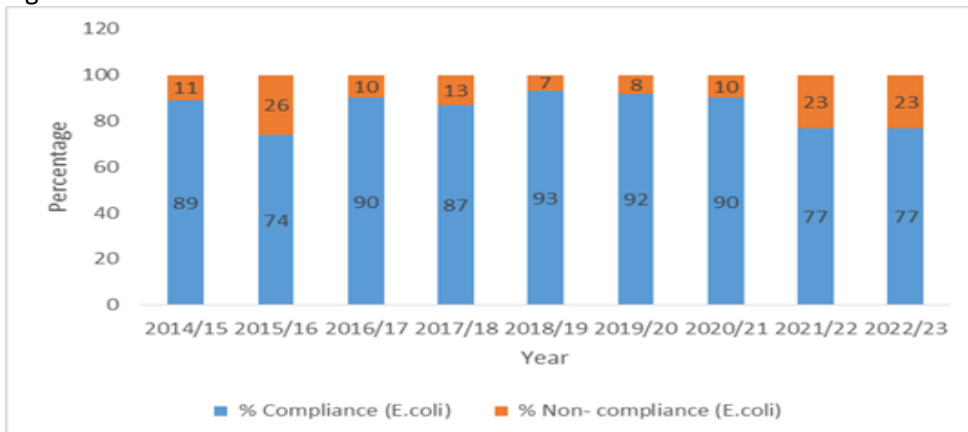


Figure 13: Trend of compliance to *E. coli* for piped water supplies in urban areas

Key findings on urban water quality

- Overall compliance to *E. coli* for urban water supplies was 77 %.
- Residual chlorine analysis showed that only 25% of the supply systems complied with the recommended value for residual chlorine in drinking water. This explains failure in compliance to *E. coli* for some water supplies as a result of insufficient levels of residual chlorine.

National Water Quality Monitoring Network – Ambient Water Quality

The ambient water quality monitoring network comprises over 152 stations for monitoring water quality trends of Uganda’s surface water resources as impacted by human activities. This type of monitoring is also used to report Uganda’s progress on the SDG indicator 6.3.2, which shows the proportion of water bodies with good water quality. In the year under review, a total of 570 water samples and 70 sediment samples were collected from major lakes and rivers and analyzed for the 5 priority parameters for SDG indicator 6.3.2. All 152 monitoring stations were visited at least once in the year with a focus on major lakes, rivers, and streams. Major lakes assessed included Lakes Victoria, Albert, Edward, George, and Kyoga. Other lakes monitored included Wamala, Kijanabalola, Mburo, Nyabihoko, Nakivale, Kachera, Nabugabo, Kwanja, Bunyonyi, Mulehe, Opetta, and Bisina.

Table 17: SDG indicator 6.3.2 Parameters for large lakes

Parameter	Units	L. Edward	L. George	L. Albert	L. Kyoga	L. Victoria	
						Littoral	Pelagic
Euphotic depth	m	3	1.5	7	2.9	3.6	7.8
Phosphates as P	mg/L	0.24	0.32	0.08	0.09	0.09	0.04
Nitrates as N	mg/L	0.38	0.36	0.58	0.15	0.11	0.10
Chlorophyll – a	µg/L	5.84	13	–	5.15	8.53	1.03
Conductivity	µS/cm	777	261	538	179	95	85
Dissolved oxygen	mg/L	5.8	7.9	6.5	7.7	7.2	6.6

Key findings from water quality assessment of large lakes

1. Dissolved oxygen concentrations were above 4 mg/l, indicating suitable conditions for fish survival.
2. Temperature profiles show no thermal stratification in the lakes at the time of the visit.
3. Inner Murchison Bay of Lake Victoria was hyper-eutrophic with a mean *chlorophyll*–concentration of 170 µg/L due to elevated nutrient loading.
4. Other bays of Lake Victoria, such as Sango Bay and Entebbe bays, were mesotrophic with mean *chlorophyll*-a concentration ranging from 8.5 – 10.5 µg/L. The pelagic stations on Lake Victoria were oligotrophic, having a mean *chlorophyll*-a concentration of 1 µg/L. Lakes George and Edward were mesotrophic, having mean *chlorophyll*-a concentrations of 12 and 5 µg/L, respectively.
5. Blue-green algae species were the most dominant algal species in the bay, giving poor aesthetic properties to lake water and possibly releasing poisonous algal toxins in the water. Algal toxins are potential health threats when ingested and increase the cost of water treatment.
6. No trace elements (Cd, Pb, As, Cu, and Ni) were detected in the water column for all the lakes.
7. Secchi depth (light penetration) was variable. The pelagic zone (deep open lake) of Lake Victoria was the clearest (7.8 m), while Lakes George (1.5 m) and Kyoga (2.9 m) exhibited dirty water (Figure 14).
8. Average concentrations of nitrate and phosphate in the lakes were variable across the lakes, as shown in Table 17. Nitrogen and Phosphorus are vital plant nutrients for the growth of phytoplankton in aquatic ecosystems. Changes in the nutrient relationships alter the biological composition within the lakes. For all lakes, the TN: TP ratio indicated a limitation of phosphorus for phytoplankton growth, thus, enrichment of phosphorus from atmospheric deposition and domestic

wastewater discharge creates a conducive environment for eutrophication and the proliferation of toxic cyanobacteria.

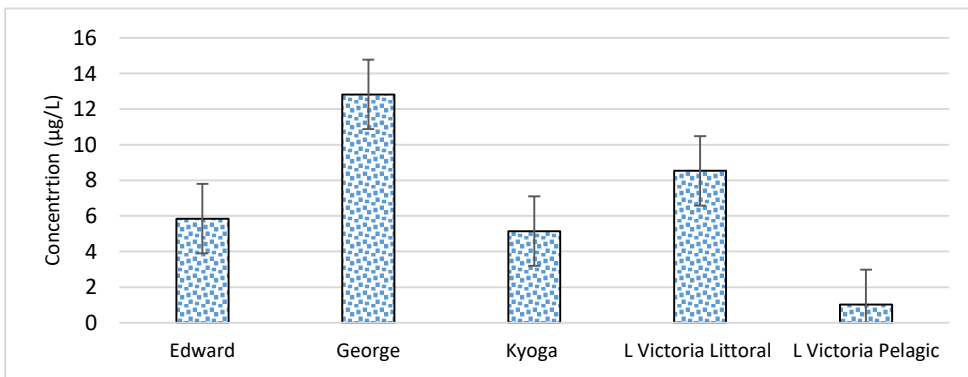


Figure 14: Mean concentrations of Chl-a for selected lakes

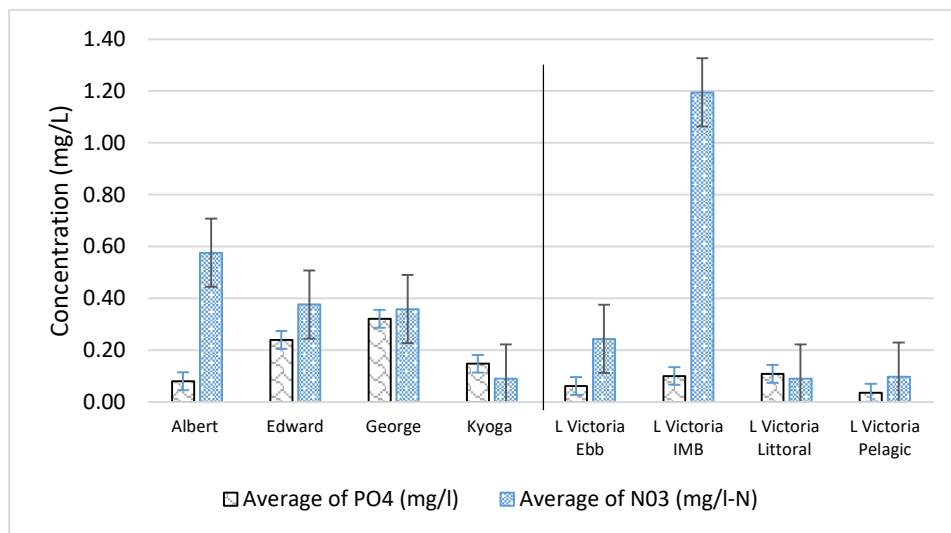


Figure 15: Mean concentrations of phosphates as P and nitrates as N

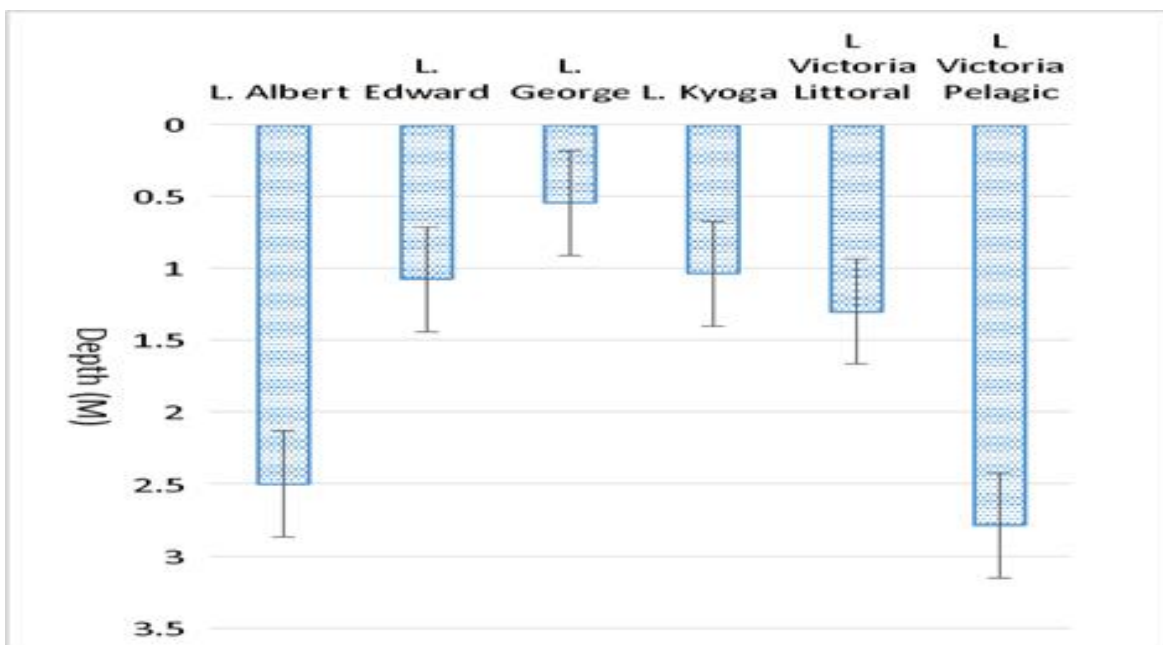


Figure 16: Mean secchi depths for selected lakes

Progress on SDG 6.3.2: Proportion of bodies of water with good ambient water quality – Uganda 2023

WQMD is the designated country administrator for Sustainable Development Goal indicator 6.3.2: Proportion of bodies of water with good ambient water quality. This indicator measures improvement in water quality for rivers, lakes, and aquifers globally. Good ambient water quality is water of a certain standard that flows in our rivers, lakes, and aquifers without causing harm to human or ecosystem health.

In Uganda, the quality of water bodies is reported for selected water bodies based on the threshold values proposed by GEMS/Water for SGD indicator 6.3.2. The parameters measured include electrical conductivity, pH, dissolved oxygen, phosphates, and nitrates. For the reporting period January 2021 to July 2023, 82% of the water bodies met the set criteria compared to 78% for the previous reporting period ending December 2020. The reporting follows a binary system with good ambient water being above 80%. Thus, for the reporting year 2023, Uganda’s overall ambient water quality was good. The apparent improvement in ambient water quality is a result of the increased number of data sets used and more water bodies. The previous reporting was based on a single water body, Lake Victoria.

Equipping Regional Water Quality Laboratories



Photo 3-13: Fort Portal RWQL (left) and Mbale RWQL (right) equipped with new equipment

The RWQL of Lira, Mbale, and Mbarara were equipped with Reagent Free ion chromatography equipment for analysis of major drinking water parameters and nutrients. The automated equipment helped fill the gap of staff shortages and resulted into:

- improved sample turn-around time from 15 to 7 days.
- increased NTR by 30%.
- reduced operation costs due to less reagent use.

Performance of National Water Quality Reference Laboratory and Regional Water Quality Testing Laboratories

The NWQRL and RWQLs received and analyzed a total of 14,219 water samples from the national water quality monitoring network and private clients in the year under review. This represents an increase of 8% compared to 13,078 water samples analyzed in FY 2021/22. The increased number of samples is attributed to the provision of automated equipment to the RWQL and participation in the Uganda Demographic Health Survey, 2022.

Table 18: Number of Samples analyzed in the Laboratories

Fort Portal	Mbale	Mbarara	Lira	NWQRL	Total
1,499	1,550	997	1,255	8,918	14,219

Non-Tax Revenue (NTR)

NTR amounting to UGX 503,603,200 was collected through water quality analytical services and water quality data sales to private clients following GoU guidelines on NTR. This is an improvement of 11 % compared to UGX 448,542,800 collected in 2021/22. Investment in better and more robust analytical equipment through GoU and donor-funded projects has improved the services of the laboratory, thus attracting more clients.

Table 19: NTR collection by Laboratory (UGX)

Fort Portal	Mbale	Mbarara	Lira	NWQRL	Total
34,257,000	25,917,000	3,680,000	56,709,300	383,039,900	503,603,200

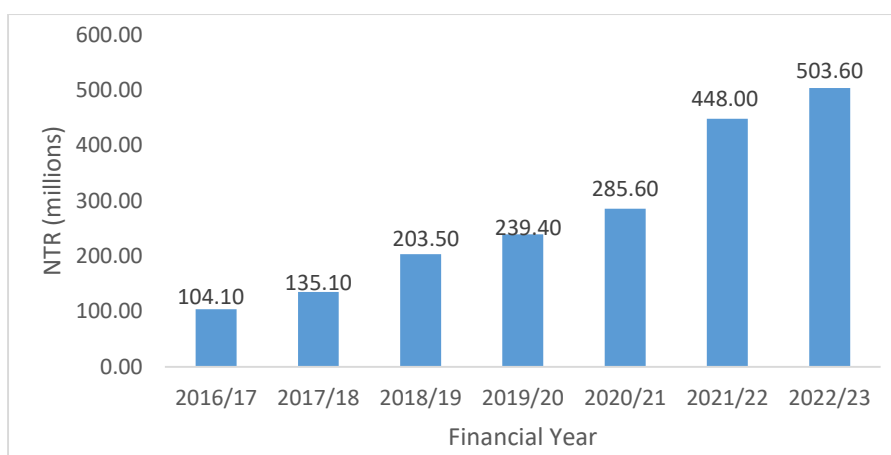


Figure 17: Trend in NTR performance since FY 2016/17

Upgrade of the Laboratory Quality Management System

For the last three years, the NWQRL has focused on establishing a Laboratory Quality Management System (LQMS) in line with the ISO/IEC 17025:2017.

Achievements

- Staff capacity was enhanced through training conducted in the following areas: ISO/IEC 17025:2017 standards, documenting the system based on ISO/IEC 17025:2017, auditing, corrective actions and root cause analysis, method verification, and basic laboratory techniques.
- Conducted different types of audits to assess the NWQRL readiness for accreditation.
- The NWQRL performed at 67% in proficiency testing schemes conducted by different international schemes. This is a good performance at the international level and implies that the NWQRL is ready for accreditation.

Implementation of Antimicrobial Resistance Surveillance (AMR) in the Water and Environment Sector

To mainstream AMR surveillance in the environment, a sector-specific AMR technical working group and a focal person were instituted. The group developed AMR surveillance documents (plan, protocol, and standard operating procedures) based on international guidelines and reviewed data generated to inform sector policy formulation.

AMR data generation through conventional culture-based techniques, including enrichment, culture growth, and biochemical test media, were used to isolate and identify the priority bacteria, namely *E. coli*, *Klebsiella*, *Enterococcus*, and *Salmonella* species and other bacteria, including *Citrobacter freundii*, *Enterobacter*, *Pseudomonas*, *Proteus*, *Providencia*, and *Raoutella* species. Antimicrobial susceptibility testing (AST) was done using the Kirby-Bauer disc diffusion method with the appropriate isolate-antibiotic combinations and techniques as stipulated in the 31st edition of the Clinical and Laboratory Standards Institute (CLSI) guidelines [21]. Penicillins, fluoroquinolones, cephalosporins, aminoglycosides, carbapenems, glycopeptides, beta-lactam/beta-lactamase-inhibitors, lipopeptides,

macrolides, oxazolidinones, sulphonamide-trimethoprim-combinations, lincosamides, polymyxins, nitrofurans-derivatives, tetracyclines, glycylicyclines and amphenicols were the antibiotic classes considered.

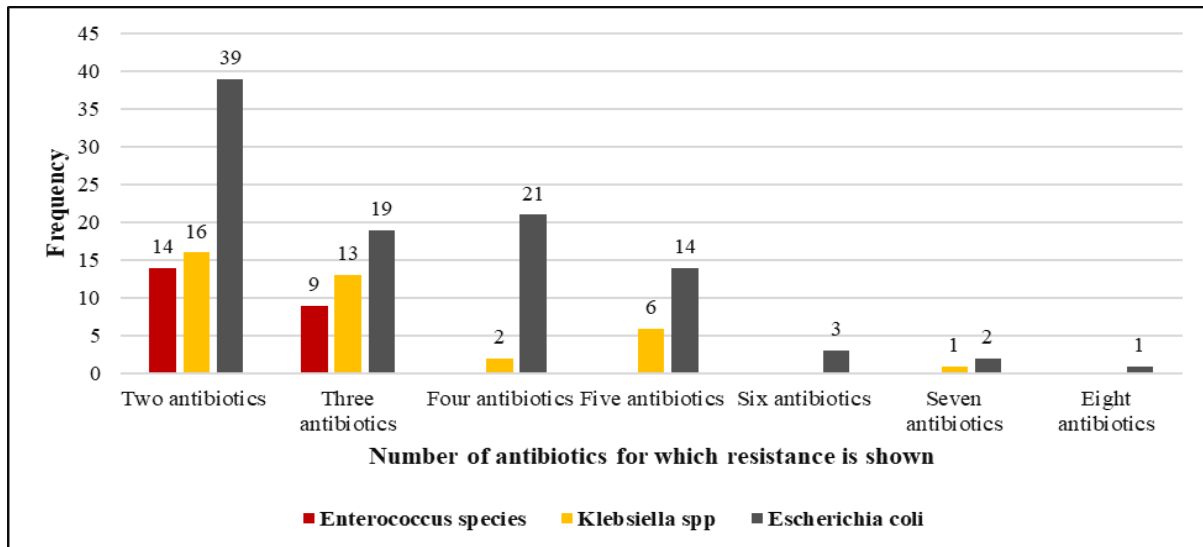


Figure 18: Number of isolates that exhibited MDR and XDR tendencies among the priority isolates recovered

Summary of findings

There is evidence of bacteria (*E. coli*, *Klebsiella* & *Enterococcus*) found in water and environment being resistant to antibiotics currently available on the market. This means treatment of infections that arise from consumption of water contaminated with such bacteria will require the use of a combination of antibiotics and hence increased cost of treatment. This information is very essential to the health sector, for appropriate responses to reduce mortalities

Challenges

1. Inadequate funding for water quality management.
2. Lack of water quality telemetric equipment to pick real-time data.
3. Scarce water quality information on waste from oil and gas exploration and production, pharmaceutical and medical wastes, microplastics in water resources, and mining.

Opportunities

- AMR surveillance in the water and environment sector can be incorporated into integrated disease surveillance and response to especially cholera and typhoid outbreak response efforts.
- Monitoring of enteric disease pathogens in the environment, including *salmonella spp*, *campylobacter spp*, and others that present a great threat to public health, can be prioritized in routine wastewater monitoring.

Recommendations

1. Increased funding for water quality management.
2. More support to industries in the adoption of RECP to reduce pollution at the source.
3. Involvement of communities in point water source protection activities and hygiene to improve compliance to safely managed water.
4. More research in emerging pollutants.

3.3.3 Create a critical mass of human resources to undertake enforcement of set standards and regulations

- i) During the FY 2022/23, a total of 95 applications from individual hydrogeologists (75) and hydrogeological firms (20) were received for issuance of operational licenses. After an extensive assessment of the applications, 73 hydrogeologists and 17 hydrogeological firms were licensed. Licensing of all individual hydrogeologists (individuals) and hydrogeological/groundwater companies (firms) involved in groundwater development in Uganda is aimed at streamlining their operations and ensuring that they perform their roles in a professional manner for the benefit of

the water users. This is done on an annual basis and the list of licensed hydrogeologists and hydrogeological/groundwater companies in Uganda together with drilling companies is issued in the media for information of the general public.

- ii) 461 persons (186 female and 275 male) were trained in various short course including (a) Integrated Water Resource Management (IWRM) as a tool for integrating climate change adaptation and Water Source Protection, (b) Pan African Water Governance and International Water Law (c) Catchment Management and Wash Technologies, (d) HEC-HMS development/simulation of long term hydrologic analysis, (e) Approach of water resources planning reflecting uncertainty, in depth feasibility study of water projects, (f) M&E Tool Operationalization for the strengthening drought resilience for small holder farmers and pastoralists in the IGAD region project, (g) Sustainable Development Goal 6 Training manual, (h) Water Time: an asset-focused business-approach and technical set-up to manage small-scale piped drinking water systems sustainably, (i) SEPAL as a tool for Environment and Land Monitoring, (j) Future of Financing – Gender-smart climate finance: unlocking an inclusive and sustainable future, (k) Technical evaluation of large scale solar water powered systems, (l) Supporting Climate Resilience in Water/Environment/Civil Infrastructure, and (m) Communication skills.
- iii) Seven (07) staff members from the Directorate of Water Resources Management (DWRM) and stakeholders from the Ministry of Energy and Mineral Development (MEMD), Electricity Regulatory Authority (ERA), Uganda Electricity Generation Company Limited (UEGCL), Uganda Electricity Transmission Company Limited (UETCL), National Environment Management Authority (NEMA) and Hydropower operators were trained on dam safety inspection.

3.3.4 Water resources institute progress and achievements FY2022/2023

The Water Resources Institute (WRI), established in Uganda in March 2018, has continued to implement its activities following the four focus areas, namely i) applied training, ii) applied research, iii) dialogue, and iv) outreach and advocacy and aligned to the objectives of the Strategic and Business Plan. The six objectives of the Strategic Plan include: i) to develop the WRI capacity to deliver its mandate, ii) to strengthen capacity for water resources management and development, iii) to provide information on water resources, iv) to provide platforms for dialogues on water resources v) to mainstream water issues and vi) to enhance stakeholder participation in water resources management and development.

Developing the WRI capacity to deliver its mandate

The Steering Committee, chaired by the Permanent Secretary, MWE, and comprised of 19 members drawn from Directors from Directorates of the Water and Environment Sector Agencies, Partners (Donors, Academia, Private Sector, and Civil Society Organizations (CSOs) and retired professionals and representatives from other Ministries, Departments and Agencies (MDAs) has been established and is fully operational having held its first meeting in August 2023.

A database of 50 retired professionals (RP) in water resources development and management was established, and three-year framework contracts have been signed between the MWE and **37** individual professionals. The engagement of retired professionals to support the sector through capacity building of young sector professionals, consultancies, and other activities has started.



Photo 3-13: Plate showing retired professionals and guests who attended the launch of the MWE-Retired professionals' scheme in August 2022

3.3.4.1 Build partnerships, collaborations, and cooperation with water and environment stakeholders to enhance the management and development of water-related resources

a) Partnerships established

Through the WRI, MWE has continued to engage and initiate collaboration and partnership with various institutions to support the Institute both financially and technically to deliver on its mandate of applied training, applied research, dialogue, and outreach. Through the above engagement, a Memorandum of Understanding (MoU) or commitment documents have been signed with various organizations. This reporting year, MoUs were signed with **2** Cultural institutions (Tooro Kingdom and Obusinga Bwa Rwenzuru), and **1** private sector organization (Excel Hort Business Incubation Centre). Similarly, partnership agreements have been signed with **3** NGOs (Water Aid Uganda, IRC Water and Sanitation Center, Water for People).

b) Undertake relevant applied research aligned to development needs and existing gaps

Applied Research

In this reporting period, the institute trained **180** researchers and professionals in abstract and paper writing, paper, and poster presentation. **56** practice, policy, and scientific papers were presented during the 6th Uganda Water and Environment Week 2023 (UWEWK2023).

The Institute has started a monthly webinar series where scholars, researchers, practitioners, and communities present to the public and stakeholders their research findings, studies, innovations, new technologies, and undertakings that are in line and/or impact the management and development of water and environment resources. In this reporting period, **8** monthly webinars have been held focusing on water, environment, energy, and food nexus.

Applied Training

In this FY 2022/23, the WRI organized, supported, and conducted **16** short course trainings representing 80% of the targeted 20 short course trainings, both national and international in nature. These involved **461 (186 female and 275 male)** participants compared to 941 participants in FY2021/22. The decline in the total number of trainees (though more trainings) is attributed to more physical than virtual trainings that were held upon opening up after the COVID-19 lockdown compared to last year. Knowingly, virtual trainings attract bigger audiences than physical, though physical training is more impactful with respect to capacity building. These trainings are conducted on cost sharing, collaboration, and partnership arrangements with organizations such as CapNet, WaterAid, GIZ, MUK, IGAD, UNESCO, and UNHCR.

With support from the Korea Trust Fund through the World Bank, the WRI developed four training modules on climate resilience and trained up to 35 staff as ToTs. Under the same support, 10 mid to high-level officials from the Ministries of Water and Environment and Energy undertook a 5-day study tour to South Korea. Additionally, with support from WaterAid Uganda, the WRI developed the SDG 6 Training Manual that is being used to training people on various aspects of SDG6.



Photo 3-14 The high-level delegation from Uganda at K-Water Academy

Mentorship Programme

The Institute initiated a mentorship program in 2021 as a trigger to awaken young and mid-career professionals' capacity for the management and development of water and environmental resources among networks of professionals across Uganda and beyond to add value and build the capacity of MWE professionals. During this reporting period, **two** parallel cohorts, each with **30** female mentees drawn from MWE (central and regional), were mentored with the support of **15** strategic mentors. The overall outcome of the WRI-Mentorship is the establishment of a pool of skilled water and environment sector professionals with positive attitudes, leadership skills, and built confidence. The creation of a pool of mentors to continue supporting the institute's mentorship program. This mentorship program equipped the mentees with knowledge on the importance of strategic planning and finance, policy Development and Formulation, Project Management, Environmental conservation and Negotiations, Climate change Adaptation, running for office in Public Service set-up, Integrated Water Resource Management, Ethics, and Values; it also helps them improve on their personal and interpersonal communication skills.



Photo 3-15: Left: A group photo of mentors and mentees cutting the cake and plate Right: representative of mentors at WRI-Mentorship Program graduation ceremony 2022/23 during UWEWK 2023

Of the 60 mentees recruited, **48** mentees who attended all 6 sessions were graduated, representing **80%** success. The Mentorship program is implemented with support from Water Aid Uganda and is continuing with additional cohorts.

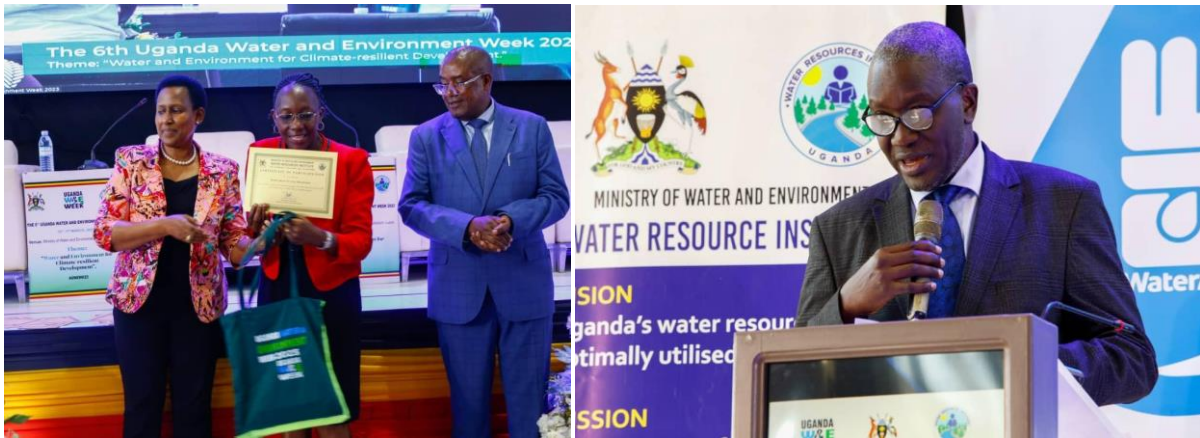


Photo 3-16: Showing the Guest Speaker, Ms. Doreen Katusiime, Permanent Secretary, Ministry of Tourism, Wildlife and Antiquities, Dr Callist Tindimugaya, Commissioner, WRPRD, and Mr. Alfred Okot Okidi, Permanent Secretary, MWE, at the graduation ceremony of the mentees

3.3.4.2 Dialogues on water resources

This FY2022/23, the Water Resources Institute organised and held 6 dialogues under the framework of UWEWK focusing on the overall theme: “Water and Environment for climate-resilient development” and its 4 subthemes i) Policy, Legal and institutional frameworks for climate-resilient development ii) Climate resilient communities, ecosystems and infrastructure iii) capacity and partnerships for climate-resilient development and iv) Innovative financing mechanisms.

Additionally, **three** dialogues were held outside UWEWK, namely i) Re-thinking the WASH, Environment, and Climate Change Financing priorities amidst and beyond the COVID-19 Pandemic, ii) influencing policy toward market-driven financing of water and sanitation, and iii) coordination and governance of Water Resources following Catchment based Integrated Water Resources Management approach. These dialogues were held in partnership and collaboration with Water for People, IRC, Water.org and Stockholm International Water Institute (SIWI).



Photo 3-17: Showing dialogue ongoing during the UWEWK2023

The outcomes and the recommendations from these dialogues are disseminated and shared with sector stakeholders at the policy and decision-making level, as well as with implementers and practitioners, to tackle engaging issues that require policy-level interventions and/or fostering compliance with policy and collaboration among different stakeholders. The recommendations can support policy reforms and create an enabling environment for smooth policy implementation. The dialogues are also used to communicate to policy-level actors issues affecting water-related policies and/or those arising from policy implementation.

3.3.4.3 Enhancing stakeholder participation in water resources management and development

The WRI of MWE has an outreach and advocacy program that aims to link with other organizations, specific groups of people such as policymakers, managers, supervisors, academia and students, the private sector, civil societies and development partners, sectors, media, and the general public to increase opportunities for sharing experience, new concepts, innovations, and practices in water and environment-related issues.

During this reporting period, the WRI implemented several outreach and advocacy activities, including the Uganda Water and Environment Week 2023, held under the theme of “*water and environment for climate-resilient development.*” The activities of the UWEWK2023 were categorized as pre-event, event, and post-event.

The Pre-event activities included, among others

- 320km Walk for Water and Environment for Climate Resilient Development from Kikuube (Kingfisher) to Kampala.



Photo 3-18: The 320 km walk for water, environment, and climate change, UWEWK2023 in pictures

- UWEWK regional activities in 6 regional de-concentrated structures of MWE.
- Regional youth debates in 4 regional de-concentrated structures of MWE (Gulu, Mbale, Fort Portal, Mbarara) and final National Youth Debate in Kampala.
- Environmental restoration, cleaning exercises, and public awareness campaign.
- Community-based environment activities by Uganda Joint Christian Council and Buganda kingdom.
- UWEWK 2023 University Hackathon.
- Clean-up exercise in Luzira by MWE management and staff and other stakeholders.
- Water and Environment Week Marathon, football matches (to promote and improve WASH) in MWE regional structures, and the Nile Run in Jinja.
- Prayers/pastoral letter for UWEWK by churches under the Uganda Joint Christian Council.
- Media engagement through radio and television take-shows and advertisements.



Photo 3-19: Media and community engagement as pre-event activities of UWEWK2023 in South Western Region

These activities attracted big population where water and environmental issues were discussed and sensitization and awareness raised.



Photo 3-20: Plate showing some of the pre-events activities of the UWEWK2023

Main UWEWK event activities

- Live televised event on UBC and NBS TVs, live-streaming and online, formal opening ceremony with the Guest of Honour, the Speaker of the Parliament of Uganda, Rt. Hon. Anita Annet Among and a keynote address on Water and Environment for Climate-Resilient Development by Prof. Kalanithy Vairavamoorthy, Executive Director, International Water Association (IWA).
- Live televised event on UBC and NBS TVs, live-streaming, and online closing sessions of UWEWK with the guest honour, Hon. Rukia Nakadema-Third Deputy Prime Minister of Uganda,.
- **16** Side events that included discussion meetings, town hall, dialogues, hackathons, career talks, youth debates, graduation of mentees of WRI-mentorship programs, studies, and practice presentations. **2** field visits within Kampala and Wakiso district on safely managing faecal sludge along the faecal sludge management chain and deepening the regulatory mandate for efficiency and efficacy. **54** Exhibitors ranging from government institutions, CSOs, private sector, communities, and financial institutions among others.

The UWEWK2023 main event attracted **1974** attended (1035 online & 939 physical) participants. Communication and publicity materials were developed for improved visibility and dissemination. Media campaign were held and the media were engaged in all WRI activities. The WRI published the 6th Edition of Water and Environment Magazine and, disseminated it through MWE websites and distributed to stakeholders (hard and soft copies).



Photo 3-21: showing panelists, moderator and keynote speaker after a dialogue session during the main event of UWEWK2023

Post-event UWEWK2023 included, among others:

- Community clean-up and sanitation competition exercise in Entebbe Municipal Council that involved **3** markets Nakiwogo, Kigungu, and Kitoro, in partnership with Water Aid Uganda.
- Field work and tree planting at Bishop Stuart University, Mbarara University of Science and Technology, and Buffalo Zone Kihumuro in South Western Region with a total of 3,730 tree seedlings were distributed and planted by the 3 institutions
- The WRI participated in the Buganda Kingdom Environment Week (25th to 27th April 2023 under the theme “Strengthening community resilience against climate change through water and environment conservation,” and the activities involved included:
 - Training on linkages between water, environment, and climate change and building climate resilient through water resources management
 - Cleaning the Kabaka’s lake and tree planting in Ndeeba and
 - The main event was held in Gombe, Sabawaali, and Kyadondo (exhibitions, demonstration, skits, etc.) with Oweek Charles Mayiga, Katikkiro, as guest of honor.



Photo 3-22: showing MWE representatives and oweek. Charles Mayiga Katiikiro at the Buganda Kingdom Environment week 2023

Key Messages from the UWEWK2023

- The natural environment contributes to the management and regulation of water availability and water quality, strengthening the 'resilience of watersheds and complementing investments in physical infrastructure and institutional and regulatory arrangements for water access, use, and disaster preparedness.
- Give priority to science for a water-secure world in a changing environment by investing in scientific research and innovation, water education, bridging the data knowledge gap, integrated water resources management under conditions of global change, and water governance based on science for mitigation adaptation and resilience.
- Man was given authority to manage the surrounding resources and live in harmony with the environment. A true Christian must keep this promise and shouldn't change what God has created. Religious institutions need to strengthen their role in this area
- The best strategy for climate-resilient development is community engagement. Cultural institutions should commit more to working with the government in conserving the environment and have the necessary structures and mechanisms for engaging the people
- Customers and water users should be helped to understand policies for better regulations of water and environmental resources e.g. Water abstraction focuses on commercial water users.
- More opportunities for partnerships and collaborations exist to protect, manage, and sustainably develop our water and environmental resources. We have to work together, and partnership is of paramount importance when it comes to building climate resilience. We need partnerships that understand the challenges and can deliver.
- There is a need to have access to indigenous knowledge in building resilience in climate development. This can be through the setting up of information-sharing centres in the different communities to facilitate this.
- Understanding readiness is important. Such as technical readiness, organizational, societal, and legal readiness. There is a need for more human resources for more technical training addressing issues of climate change, water, and the environment.
- There is a need for climate-proofing of infrastructure and having sustainable green investment, monitoring, and instruments against climate change.
- Uganda should develop facilitative standards to support transitioning to nature-based solutions by borrowing global standards like the 8 criteria and 28 indicators for designing new and assessing existing nature-based solutions.
- Use AI, ICT, and tools that allow users to access powerful cloud computing resources to query, access, and process satellite data quickly and efficiently for creating advanced analysis is needed to adapt or integrate for Nature-based solutions.
- In the next 20 years, there will be a golden age for wastewater and sanitation where many countries will have opportunities to leapfrog, like energy savings of up to 50%, backed-in circular water principles, among others.
- Limited access to safe water and sanitation remains a key challenge threatening our local communities. Water is a system of systems that we can view from different heights. Therefore, there is a need for a systems perspective of a water cycle.
- Sectors should not maintain "silos" but open with "windows and doors" for coordination and cooperation within and among sectors. Therefore, focus on cross-sectorial engagement and retain mandate.
- Understanding the political economy of things and the interests of various organizations is key in strengthening coordination and collaboration.

Challenges, Opportunities, and Recommendations

Challenges

- 1) Inadequate funding for water resources management to address the increased catchment degradation, pollution, and climate change impacts on water resources.
- 2) Inadequate equipment for monitoring the quantity and quality of water resources, especially telemetric equipment, to pick up real-time data.
- 3) Scarce water quality information on waste from oil and gas exploration and production, pharmaceutical and medical wastes, microplastics in water resources, and mining.
- 4) Inadequate funds for enforcing compliance with the Water Act and water permit conditions.

Opportunities

- i) Framework for catchment-based integrated water resources management that involves all the key stakeholders provides an opportunity to mobilize and leverage human and financial resources for coordinated and impactful actions
- ii) The Water Resources Institute, with its various capacity-building programs, provides an opportunity to build the capacity of all the various stakeholders to collaborate to address the current challenges.
- iii) AMR surveillance in the water and environment sector can be incorporated into integrated disease surveillance and response, especially cholera and typhoid outbreak response efforts.
- iv) Monitoring of enteric disease pathogens in the environment including salmonella *spp*, campylobacter *spp*, and others that present a great threat to public health can be prioritized in routine wastewater monitoring.

Recommendations

- 1) Support full operationalization of the framework for catchment-based integrated water resources management that involves all the key stakeholders to leverage resources for coordinated and impactful actions
- 2) Need to support the Water Resources Institute to continuously build the capacity of all the various stakeholders to collaborate to address the current challenges.
- 3) Increased funding for water resources management.
- 4) More support to industries in the adoption of RECP to reduce pollution at the source.
- 5) Involvement of communities in water source protection activities and hygiene to improve compliance to safely managed water.
- 6) More research in emerging pollutants and other water-related challenges.

CHAPTER 4

NATURAL RESOURCES, ENVIRONMENT AND CLIMATE CHANGE

4.1 Introduction

Natural Resources, Environment, and Climate Change (NRECC) Sub-programme is responsible for achieving the programme objectives of

- 1) Increase forest, tree, and wetland coverage, restore bare hills, and protect mountainous areas and rangelands
- 2) Maintain and/or restore a clean, healthy, and productive environment
- 3) Promote inclusive climate resilient and low emissions development at all levels
- 4) Increase incomes and employment through sustainable use and value addition to water, forests, and other natural resources.

Sub-programme Outcome Indicators

- Increase land area covered by forests from 9.1% to 15%.
- Increase the proportion of land area covered by wetlands from 8.9% to 9.57%
- Increase permit holders complying with ESIA conditions at the time of spot check from 40% to 90%.
- Increase the accuracy of Meteorological Information from 60% to 90%.
- Increase the percentage of automation of the weather and climate network from 30 to 80
- Average Annual Change in Green House Gas (GHG) emissions (MtCO₂e) from 1.39 to 1
- Increase the proportion of green jobs to total jobs from 25 to 38.

Sub-program Interventions

- (i) Develop and implement wetland and forest management plans.
- (ii) Develop a national green growth financing and investment plan.
- (iii) Demarcate and gazette conserved and degraded wetlands.
- (iv) Procure equipment for monitoring set standards on air, noise, water resources, and soil pollution.
- (v) Create a critical mass of human resources to undertake enforcement of set standards and regulations.
- (vi) Undertake sensitization campaigns on the permitted levels of pollution and penalties for exceeding thresholds thereof.
- (vii) Strengthen conservation, and restoration of forests, wetlands and water catchments, and hilly and mountainous areas:
 - a. Promote rural and urban plantation development and tree planting, including the local and indigenous species.
 - b. Formulate economic and social incentives for plantation forests.
 - c. Promote the application of performance-based sustainable forest management criteria for all forest sector development aspects and scale up agroforestry as a climate-smart agriculture practice.
 - d. Establish dedicated fuel wood plantations necessary to contribute to achieving or exceeding net biomass surplus levels.
 - e. Develop wetland management plans to support gazetting and demarcation of existing wetlands.
 - f. Restore the natural integrity of degraded wetlands to their ecological functionality.
 - g. Ensure the protection of rangelands and mountain ecosystems.
 - h. Implement national targets on threatened/endangered species, restoration of natural habitats, and management of invasive alien species with the support and participation of local communities and indigenous peoples.

- i. Identify and declare special conservation areas to raise the conservation status of areas outside protected areas that are important biodiversity areas.
 - j. Integrate environmental management in all disaster and refugee response interventions.
 - k. Improve the management of districts and private forests.
 - l. Leverage technology to strengthen enforcement capacity for improved compliance to standard agro-forestry practices.
- (viii) Mobilise and significantly increase financial resources from all sources to conserve and sustainably use natural resources and mitigate disasters.
 - (ix) Assure a significant survival rate of planted tree seedlings.
 - (x) Develop and implement a framework that reduces the adverse per capita environmental impact of cities (air quality and waste management practices).
 - (xi) Mainstream environment and natural resources management in policies, programmes, and budgets with clear budget lines and performance indicators:
 - a) Improve coordination, regulation, and monitoring of environment management at both central and local government levels.
 - b) Strengthen control and management of chemicals, pollution, and environmental disasters.
 - c) Increase funding for decentralized environment management.
 - (xii) Formulate and implement vehicle emission standards and sustainable management of chemicals to curtail the high levels of air, land, and water pollution, particularly in urban areas.
 - (xiii) Integrate education for sustainable development in national curricula at all levels for an environmentally literate citizenry.
 - (xiv) Undertake applied research and innovation on sustainable consumption and production to ensure resource use efficiency to reduce domestic material consumption per capita.
 - (xv) Building capacity for climate change adaptation and mitigation, including hazard/disaster risk reduction:
 - a) Promote continuous integration of climate change and disaster risk reduction in planning, budgeting, and reporting.
 - b) Undertake issuance of carbon footprint certificates to support the industrial sector's move towards carbon neutrality.
 - c) Finalize the development of a national Green House Gas Inventory and its Monitoring, Reporting, and Verification system. Review Uganda's 2015 Nationally Determined Contributions in light of local emerging issues and new global climate change action ambition.
 - (xvi) Promote natural resource accounting to improve the national income measurement:
 - a) Undertake economic valuation of selected ecosystems and their services.
 - b) Integrate natural capital and ecosystem service accounting into the system of national accounts
 - (xvii) Build sectoral, institutional, and local government capacity in natural capital accounting.
 - (xviii) Mainstream climate change resilience in programmes and budgets with clear budget lines and performance indicators:
 - a) Scale up the use of renewable energy through off-grid electrification and Liquefied Petroleum Gas.
 - b) Build gender response capacity in climate change monitoring and evaluation systems through integration in local government performance assessment and national monitoring frameworks.
 - c) Improve education, awareness raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.
 - d) Establish eco-friendly municipal and city waste collection and sorting facilities, and systems for recycling and reuse as a remedy for immense methane emissions from open landfills.
 - e) Formulate green and climate change resilient and mitigative building codes for the housing sub-sector.
 - (xix) Implement resolutions from the negotiation of carbon projects and develop bankable projects.
 - (xx) Develop local finance solutions tailored to micro, small, and medium enterprises engaged in sustainable production and generation of climate change-responsive technologies.

- (xx) Build partnerships with stakeholders to formulate instruments such as climate and green bonds.
- (xxi) Increase investment in value addition to environment and natural resources products and services:
 - a) Increase funding for promoting non-consumptive uses of natural resources.
 - b) Mobilise and significantly increase financial resources from all sources to conserve and sustainably use natural resources.
- (xxii) Increase awareness on sustainable use and management of environment and natural resources:
 - a) Develop a clear communication strategy for sustainable natural resource management.
 - b) Undertake targeted sensitization campaigns with information packaged in forms tailored to the information needs of recipients.
 - c) Build strategic partnerships with other players, such as the private sector, cultural institutions, media, and politicians.
- (xxiii) Promote research, innovation, and adoption of green appropriate technology to foster sustainable use and management of Water Resources & ENR:
 - a) Develop a clear research agenda for this programme in partnership with relevant stakeholders
 - b) Undertake relevant applied research aligned to development needs and existing gaps
- (xxiv) Promote forest cluster-based wood processing industries.
- (xxv) Support local community-based eco-tourism activities for areas that are rich in biodiversity or have attractive cultural heritage sites.
- (xxvi) Promote payment for ecosystem services, biodiversity offsets, and benefit sharing arising from the use of biological resources.

The implementing Agencies include Ministry of Water and Environment (MWE), Ministry of Local Government (MLG), Ministry of Energy and Mineral Development (MEMD), Ministry of Tourism and Wildlife and Antiques (MTWA), National Environment Management Authority (NEMA), National Forestry Authority (NFA), Uganda Wildlife Authority (UWA), Uganda National Meteorological Authority (UNMA) and Environment and Natural Resources Civil Society Organizations (ENR CSOs)

4.2 NRECC Outcome Indicators

4.2.1 Percentage of Land Area Covered by Forests

The Government of Uganda is committed to the sustainable management of forest landscapes. Data from the National Forestry Authority Land Use Land Cover Biomass Study (2021 unpublished) indicated that Uganda registered a reduction in forest-land cover from 24% in 1990 to 10% in 2015 and started increasing to 12% in 2017 to 13% in 2019 and then reduced to 12.2% in 2021. The loss in forest cover was attributed to charcoal burning in woodland forests mainly in Northern Uganda. Interventions have been put in place to halt further deforestation through mass community tree planting, Climate-smart agriculture, and alternative biomass energy initiatives. Reforestation and protection of the remaining Natural forests is expected to increase forest cover from 12% in 2021 to 21% in 2030 and 24% by 2040.

Table 20: Trend of forest cover against other land uses from 1990 to 2021

Forest Status	1990	2000	2005	2010	2015	2017	2019	2021
Forest Cover	4,933,730	3,786,547	3,604,219	2,199,309	1,938,990	2,025,453	2,707,266	2,460,909
Land Area	20,465,766	20,474,477	20,448,880	20,466,001	20,405,110	20,409,126	20,454,009	20,206,722
Forest % of land area	24.1%	18.5%	17.6%	10.7%	9.5%	12.3%	13.2%	12.2%
LULC class	1990	2000	2005	2010	2015	2017	2019	2021
Broadleaved plantations	18,682	9,844	14,786	20,995	43,733	84,137	228,118	257,987
Coniferous plantations	16,384	11,498	18,741	43,743	63,546	75,801	86,236	83,834
THF high stocked	651,106	703,926	600,955	564,948	525,134	524,189	518,073	536,418
THF low stocked	273,060	226,549	191,693	120,756	104,592	102,150	156,774	125,503
Woodlands	3,974,498	2,834,730	2,778,044	1,448,869	1,201,985	1,239,176	1,739,958	1,476,314
Bushland	1,422,254	4,007,891	2,968,685	2,371,776	1,970,692	1,664,429	273,405	558,750
Grassland	5,115,446	2,793,950	4,063,594	5,068,269	5,103,796	5,121,004	5,531,494	4,598,422
Wetland	484,028	838,537	753,038	810,445	716,721	785,703	877,337	974,401
Subsistence farmland	8,401,550	8,916,053	8,847,640	9,772,224	10,275,557	10,483,258	10,607,875	11,324,373
Commercial farmland	68,446	103,327	106,629	134,915	255,934	182,396	165,003	173,959
Built up	36,571	26,315	97,270	98,449	135,593	138,722	259,502	282,706
Water bodies	3,689,580	3,680,870	3,706,467	3,689,346	3,750,237	3,746,221	3,701,338	3,755,227
Impediment	3,741	1,857	7,804	10,614	7,828	8,162	10,235	7,332
Total Area of Uganda	24,155,347	24,155,347	24,155,347	24,155,347	24,155,347	24,155,348	24,155,347	24,155,226

Source: NFA

Figure 19 depicts forest land cover from 1990 to 2021 by type.

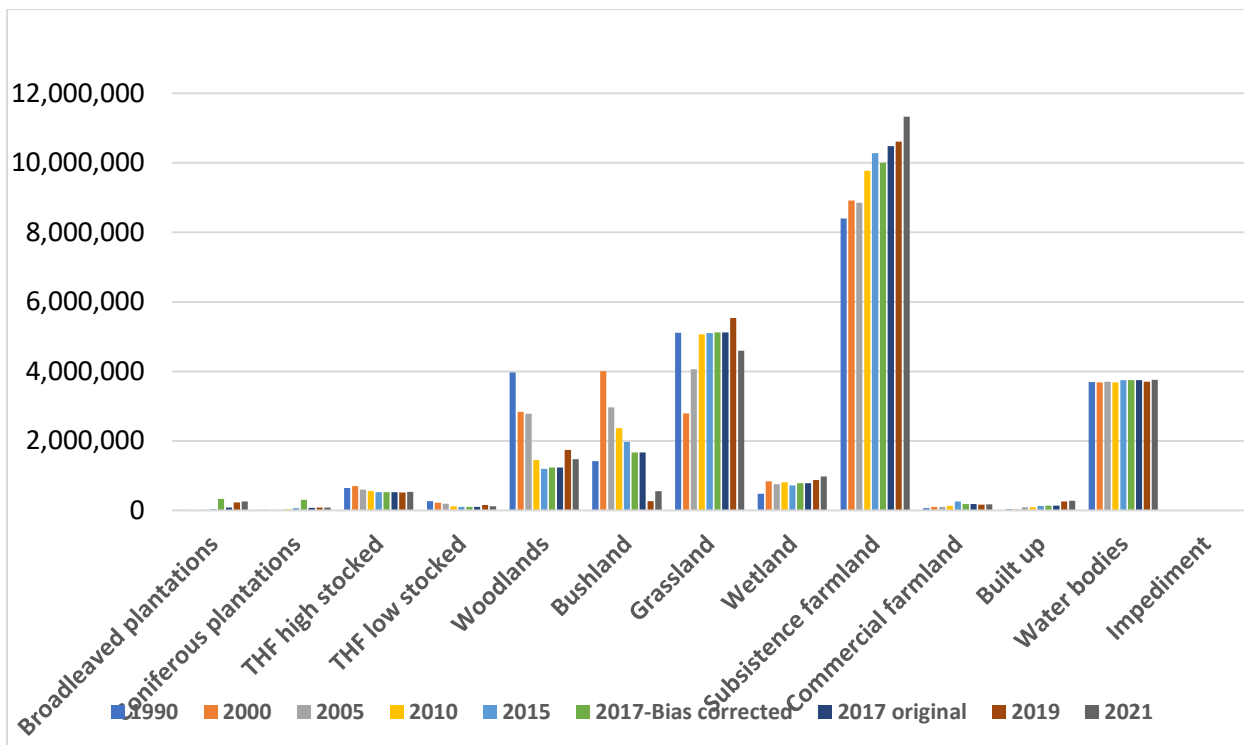


Figure 19: Trend of forest land cover from 1990 to 2021

4.2.2 Percentage of Land Area covered by Wetlands

Wetlands in Uganda today cover a total surface area of 33,762.6 sq.km (13.9%) with a notable increase of 0.9% from 13% in 2021 to 13.9% in 2023. Although the wetland coverage was estimated at 13% in 2015 of Uganda's surface area, only 8.9% (21,526km²) of this was intact, while 4.1% (9,885km²) was under some form of degradation.

The decline recorded between 1994 and 2015, were 6,146.6 sq.km of wetlands were lost (2.5% of Uganda’s surface area). This caused concern and drastic measures had to be undertaken to avert further decline. These measures included; the creation of the Environment Protection Police Unit, wetland restoration programs, Wetlands systems Supervisors and massive public awareness, among others. These measures contributed to the increase in wetlands coverage to 13.9% though short of baseline coverage of 15.6% in 1994 when the wetlands were mapped. The 0.9% increase is attributed to the 2022 wetlands mapping that was adopted from the Land use and land cover (LULC) mapping under NFA. The **wetland cover and land use classes used in the 2022 wetlands mapping**, shows the 8 classes of wetlands that includes permanent wetlands occupied by papyrus, sedges, and floating vegetation decreasing from 877,337km² in 2019 to 8,259.8 km².

Note: Determination of the National wetlands coverage involves a systematic monitoring process of various wetland systems factoring in temporal variations for a period of 5 years (1995-2000;2001-2005;2006-2010;2011-2015;2016-2020; 2021-2025;2026-2030 etc).

Table 21: showing intact and degraded wetlands from the 2022 land cover dataset

No.	Wetland status	Area (Km2)	National Percentage
1	Intact wetland	22,457.4	9.3
2	Degraded wetlands	11,305.1	4.7
TOTAL		33,762.6	13.9

Source: Wetlands Management Department

Table 22: shows the wetland cover and land use classes

No	Wetland classes	Description	Area (Km ²)	Percentage (%)
1	Papyrus and floating vegetation	These are wetlands with rooted and floating vegetation that can grow up to 5-6m	8,259.8	24.5
2	Grasslands	These are wetlands with tall and short grasses. Sometimes include reeds.	8,865.8	26.3
3	Woodlands	These are wetlands composed of scattered tall trees, shrubs, palm trees with grasslands underneath	1,844.5	5.5
4	Forested areas	These include wetlands characterized by dense tree canopy	10,454.1	31.0
5	Bushlands	These wetlands include dense and scattered bushes that are not more than 4meter in height	204.0	0.6
6	Small-scale farmlands	These include wetlands under cultivation with crops grown purposely for household consumption such as annuals and perennials e.g., Root crops, vegetables, cereals etc	3,405.9	10.1
7	Commercial farmlands	These include wetlands under cultivation with crops grown purposely for commercial use such as tea and sugar cane plantations, rice schemes among others	81.4	0.2
8	Built-up areas	Wetlands converted into settlements, industries, waste treatment plants, roads etc	647.0	1.9
		TOTAL WETLANDS AREA	33,762.6	100

Source: Wetlands Management Department

4.2.3 Increase permit holders complying with ESIA conditions at the time of spot check

NEMA received 4,762 ESIA-related submissions for review, and 5,143 ESIA-related submissions were assessed and finalized. The extra are a result of handling backlog submissions. NEMA carried out 1,934 environmental inspections with the support of the Environment Protection Police Unit and Technical Inspectors out of the 2,000 targets for the FY (97%).

The DESSS conducted inspection and compliance monitoring of 37 entities in Kampala, Jinja, Mbarara, and Sino Mbale Industrial Park. The entities included Kampala Cement Industries, Tororo Cement Industries, Hima Cement Industries, Yummy Bakery Ltd, Trans Uganda Distribution, Crest Foam Ltd Company, Wispro (U) Limited, Lake Bounty Ltd, Britania Allied Industries, Mukwano Detergent Company, and Mega Industries located in Kampala. Sunbelt Textiles, MM Integrated Steel and Mill (U) Limited, Bidco (U) Ltd, Makenke Local Distillers, Mada Nile resort Hotel, Lon Distillers, Skyfat leather Tannery, Alysinnia group of Industries located in Jinja City. Entities inspected in Mbarara included Pearl diaries or Lato milk, Ankole tea, Igara tea, Buhweju tea, Mukwano tea, Kanuzire, Cocacola, Amos diaries, GBK, and 3 Mineral mines. The Entities inspected at Sino Industrial Park Mbale included Zhong Gang, Kammy Industries, Chint Metera and Electricals, and Uhome Holdings -Blac arc.

Out of the 37 facilities only 22 had ESIA certificates, 15 were complying with ESIA conditions, 7 were not complying with ESIA conditions, and 10 facilities had no proof of any ESIA certificate in place, including all the 5 industries inspected at Sino Industrial Park Mbale. The 15 facilities were issued with improvement notices, only 10 facilities have since improved on their compliance. The major non-compliance areas were lack of wastewater treatment, encroachment on lake and river buffer protection areas, improper handling of solid waste, and nonadherence to workers' health and Safety. Also to note is that factories are also attracting rapid unplanned urbanization in their localities creating slums hence affecting sustainable living in the communities. This is promoting encroachment and destruction of fragile wetlands, streams, and river buffer zone areas within their areas for settlement and expansion of land for agriculture.

4.2.4 Air Quality Index PM2.5

Not assessed during the FY 2022/23.

4.2.5 Average Annual Change in Green House Gas (GHG) Emissions (MtCO₂e)

Uganda's greenhouse gas emissions were 94.65 Million tons of carbon dioxide equivalent (MtCO₂e) in 2017 based on Uganda's Third National Communication (TNC) under the United Nations Framework Convention on Climate Change (UNFCCC) prepared in 2022. Under the Business-as-usual scenario, the estimated annual change is 1.27 MtCO₂e.

4.2.6 Climate Change Vulnerability Index

National Climate Risk Vulnerability Assessment (CRVA) report and indices was 90% complete. Consolidation of stakeholder feedback is ongoing to finalize the Report (the CRVA, vulnerability indices, and national digital vulnerability map).

4.2.7 Percentage Change in the Accuracy of Meteorological Information

The accuracy of a seasonal forecast refers to the percentage of reliability or precision of a predicted forecast in relation to what is observed or measured on the ground. Accuracy is always given in terms of percentage range. The average accuracy of the seasonal rainfall forecast was 77% against the PIAP annual target of 84%. The average accuracy increased from 72.5% in FY 2021/22 to 77% in FY 2022/23. However, it was within the same range of accuracy of forecasts reported in FY 2020/2021 was 75-80%.

The accuracy for June-August (JJA) 2022 was at 74%, September-December (SOND) 2022 was 78%, and (March-May) MAM 2023 was 80%. This was attributed to the changes in the climate systems, such as

the occurrence of tropical cyclones (Gombe and Halima), which diverted moist air inflow into the eastern Africa region, resulting in the disruption of the onset of seasonal rainfall (March to May 2022) and further causing dry conditions in the country.

4.2.8 Percentage automation of weather and climate network

The objective is to have at least one established Automatic Weather Station in each of the 147 districts. The percentage of automation of weather and climate network was 67% against the PIAP annual target of 70%. The percentage of automated network increased from 64% in FY 2021/22 to 67% in FY 2022/23. The automated station increased by 5 from 196 in FY 2021/22 to 201 in FY 2022/23, spread in 98 of the 147 districts. Since the start of NDP III, the automated weather stations have increased from 62% in FY 2020/21 to 67% in FY 2022/23. This represents an increase of 7 stations from 194 in FY 2020/21 to 201 in 2022/23. Figure 20 depicts the gradual increase in automated weather station over the past 4 years.

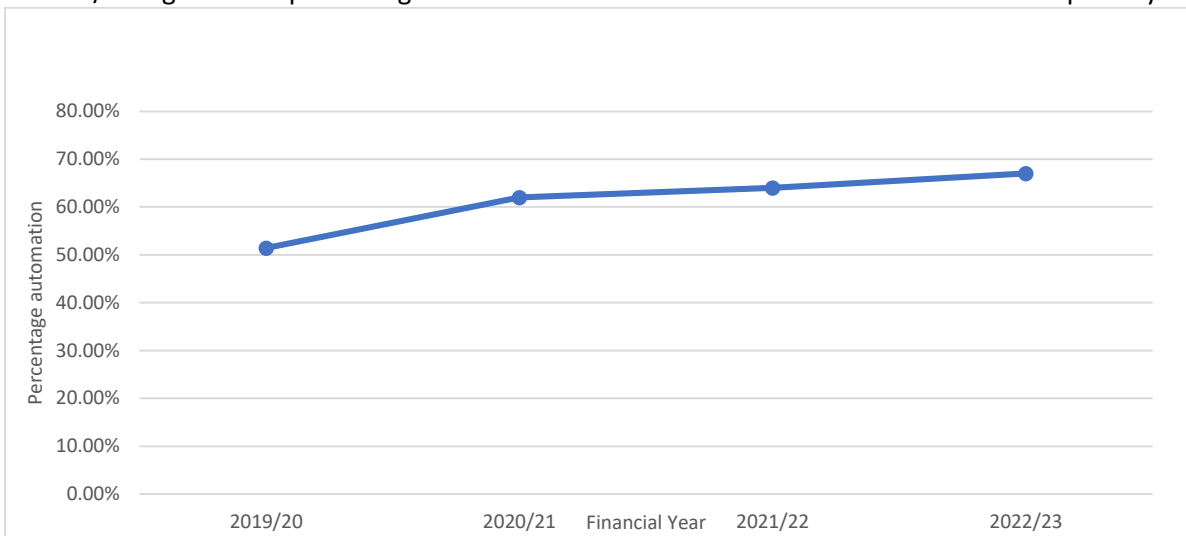


Figure 20: Trend in increase in automated weather station

UNMA maintained 152 out of 201 across the country. Rehabilitated stations of Tororo, Buginyanya, Kanungu, Ntungamo, Mukongoro (Kumi) and Upgraded Kachwekano ADCON Automatic Weather Station to standard heights.

4.2.9 Increase the proportion of green jobs to total jobs from 25 to 38.

A number of forestry investments provided green jobs to the citizens of Uganda including employment of plantation establishment, nursery establishment, carpentry, crafts making from rattan and other forestry climbing plants, honey production and processing, ecotourism, and nature-based enterprises. During the reporting period, an estimated 200,000 people were employed in the different forestry enterprises (20%) against the annual target of 1,000,000 green jobs provided by the entire forestry sector.

4.3 Progress of Implementation of Interventions

4.3.1 Strengthen conservation, restoration of forests, wetlands and water catchments, and hilly and mountainous areas

(i) Central Forests

Table 23 presents an overview of the performance of central forests' key performance indicators. Overall, substantial progress has been made in the past three years, and the majority of the KPIs are on track to achieve the PIAP target by 2025. However, at the current rate of progress, the PIAP targets for the survey and marking of central forests, area of forest inventory, and biomass assessed, and assorted seedlings supplied are unlikely to be achieved.

Table 23: Trend of Performance of Central Forests Key Performance Indicators

Program_PiAP Intervention	PIAP output indicator	PIAP Target (2020-2025)	Baseline FY 2019/2020	Achievement			Cumulative Performance 2020-2023
				FY 2020/21	FY 2021/22	FY 2022/23	
Strengthen conservation, restoration of forests, wetlands and water catchments and hilly and mountainous areas	Number of Forest Management Plans prepared and revised (20FMPs prepared and 35FMP revised)	55	35	9	9	2	55
	Length (km) of CFRs boundary resurveyed, marked, and maintained	12,200	2,200	677	504	998	4,380
	Area of CFRs protected and freed from illegal activities/encroachment (ha)	1,265,000	1,012,594	59,588	192,818	1,190,191	1,190,191
	Area of non-degraded and restored natural forests (ha)	365,000	453,551	3,128	11,329	13,659	481,667
	Area of forest plantations established on CFRs (ha)	113,000	111,000	32,612	5,849	14,093	163,554
Strengthen enforcement capacity for improved compliance	Area of CFRs managed through partnerships (licensees, MOUs and CFM) ha	160,012	256,633	18,199	5,000	13,580	293,412
	Number of professional staff recruited at forest protection level.	750	350	356	341	357	357
	Number of modern forest management infrastructure and equipment procured	1,770	518	-	137	297	952
Mainstream climate change resilience in programmes and budgets	Area of forest inventory and biomass assessed (ha)	62,657	12,657	497	3,700	6,735	23,589
Support local community-based eco-tourism activities for areas that are rich in biodiversity o	Number of new ecotourism concessions developed in partnership with the private sector	10	14	4	5	7	30
Increase funding for promoting non-consumptive uses of the natural resources	Number of assorted seedlings supplied	200,000,000	26,000,000	45,768,078	31,188,634	17,239,045	94,195,783
Mobilise and significantly increase financial resources to conserve and sustainably use natural resources	Number of business project developed	48	-	1	-	-	1
Build strategic partnerships with other players	Number of stakeholder partnerships developed	75	50	-	-	5	55

A total of 1,190,191 ha (94%) of the 1,265,000 ha of 506 Central Forest Reserves (CFRs) were protected from illegal activities including encroachment by forest law enforcement patrols supported by the Environmental Protection Police (EPP) in 16 management areas across the country while, 75,900 ha (6%) of CFRs remained under encroachment. A total of 135 illegal land titles in CFRs were verified for cancellation by Department of Surveys and Mapping in the Ministry of Lands Housing and Urban Development While 72kms of fire lines were re-opened to protect forests from bushfires.

About 13,659 ha of the annual target of 10,000 ha was freed from encroachment through evictions and restored with high-value indigenous tree species and bamboo in CFRs across the country. This constituted 54.2% (481,667ha) of the NDP III target of 889,115 ha of natural forest cover in the Central Forest Reserves.

In order to ensure the protection of forests, rangelands, and mountain ecosystems, 998.3km of forest reserve boundaries were re-surveyed and marked in all 16 management areas of the CFRs across the country (9 Ranges and 7 Plantation areas) and this constituted 45% (4,379.7km) of the total 9,755km of the 506 CFRs.

Draft final guidelines for Collaborative Forest Management are undergoing final validation in addition to preparation of the popular version, and it is expected that these guidelines will be concluded in the next FY 2023/24. A task team comprising of relevant partners is in place, and championing the process, with the secretariat at NFA and the process chaired by the FSSD.

In order to strengthen forest conservation and promote performance-based Sustainable Forest Management (SFM), Forest Management Plans for Rwoho and Mwenge plantations were finalized. Although all the 55 Forest Management Plans (FMPAs) of the PIAP target are valid for implementation in line with NFTP 2003, the Forestry regulation of 2016 and National Forest Standards, periodic

revision, and update of FMPs with developments in the country, including oil and gas in Albertine Rift Valley, Sango Bay and effects of refugees is expected to enhance climate financing partnerships.

Within the Ecosystem-Based Adaptation project (EbA), being implemented in the four districts of Isingiro, Mbarara, Arua, and Sironko, the primary focus is on the strategic management of ecosystems and their associated services. This initiative aims to mitigate the susceptibility of local human communities to the adverse effects of climate change. It also involves efforts to rehabilitate and restore degraded forest reserves within these regions. In Arua district, the restoration process of the four Local Forest Reserves (LFRs) commenced, beginning with the demarcation of boundaries. So far, a total of 59 ha covering Kuluva LFR (10 ha), Ezuku LFR (18 ha), and Giligili LFR (31 ha) have been opened up and demarcated with pillars.



Photo 4-1: Sensitisation of communities before boundary demarcation Photo4-2: Establishment of pillars under EbA project Promote rural and urban plantation development and tree planting, including the local and indigenous species

During the reporting period, several initiatives contributed to the expansion of forested areas in Uganda. These efforts covered a range of projects, including the Forest Management and Sustainable Charcoal Value Chain Project, Private Investors Plantations established on Community Forest Reserves (CFRs), Ecosystem-Based Adaptation (EbA), the Community Tree Planting Programme led by the National Forestry Authority (NFA), Building Resilient Communities, Wetland Ecosystems, and Associated Catchments and various projects managed and coordinated by local district governments.

A total of 10,070 ha of forests with varied and/or wide range of assorted tree species were established under these projects. In addition to these efforts, the government also launched the "40 million Tree Planting Campaign," now known as the ROOTS (Running Out of Trees) program, on March 21, 2021, and each year has registered significant progress. In FY 2022/23, a total of 5850ha was planted under this initiative.

The Government of Uganda through the Ministry of Water and Environment also supplied 30,000 seedlings of *Macademia Integrifolia* and 25,000 seedlings of *Persea americana* (HASS AVOCADO) to farmers in the districts of Omoro, Nwoya, Agago, Pader, Amuru, Kiryandongo, Lamwo, Kitgum and Hoima. The farmers were trained prior to planting and during the monitoring and field verification visits, the survival rates were over 80%

Table 24 provides a summary of the planted area during the reporting period.

Table 24: Tree project details and Area planted with trees

No	Initiative/project	Area planted (ha)	Remarks
1	IFPA-CD	1,988	Districts covered included: Rubanda, Rukungiri, Kabale, Kasese, Butaleja, Mbale, Bundibugyo, Sironko, Buhweju, Mitooma, Namisindwa, Kamwenge, Ntoroko, Kabarole, Kagadi, Kiboga, Kikuube, Buliisa, Bududa, Bundibugyo, Manafwa and Sheema.
2	FIEFOC 2	1,530	In districts of Kween, Pakwach, Nebbi, Madi Okollo, Butaleja, Apac and Oyam
3	Districts	5217	53 local governments of Moyo, Rubirizi, Kyegegwa, Kalungu, Mukono, Kakumiro, Budaka, Kaberamaido, Mityana, Serere, Gulu, Kazo, Mbale, Soroti, Kayunga, Nabilatuk, Kasese, Sheema, Mitooma, Buyende, Masindi, Lira, Karenga, Tororo, Ntoroko, Koboko, Madi Okollo, Rwampara, Bunyangabu, Jinja, Kassanda, Bududa, Otuke, Nakaseke, Adjumani, Kabarole, Zombo, Kiryandongo Nebbi, Butebo, Kibuku, Bukomansimbi, Nakaseke, Kyankwanzi, Sembabule, Arua, Gomba, Kalaki, Isingiro, Masaka, Kiboga, Kyotera, Kibaale reported tree planting.
4	Forest Management & Sustainable Charcoal Value Chain Project	1007	Luwero, Nakaseke, Mubende, Kasanda, Kiboga, Amuru, Nwoya, Kitgum, Gulu, Adjumani, Yumbe, Moyo, Obongi districts
5	Tree growing for improved and sustainable livelihood of communities in Northern Uganda Project	60	Namukora, Atanga, Opit & Anaka Catholic Parishes in Kitgum, Pader, Omoro and Nwoya Districts
6	IWMDP	268	In Acholi and Lango subregions
7	ROOTS program	5850	Planting trees was done by Churches, schools, and Companies
	Total	15,920	

The area and productivity of industrial forest plantations on Central Forest Reserves increased 14,093 ha from 149,460 ha to 163,553.8 ha. This constitutes 64% of the NDP III target of 257,475 ha of forest plantations. 6,316 ha of NFA tree plantations were weeded and 604 ha thinned and pruned in Lendu (100 ha), Mafuga (200ha), Mbarara (204ha), and Mwenge (100 ha). 14,093.4 ha of commercial tree plantations were established and maintained: NFA (513.4 ha), Mafuga (150 ha), South Busoga (163 ha), Mbarara (150 ha), Mwenge (50 ha) and private tree planters (13,580 ha).

Develop and implement wetland and forest management plans

In order to promote performance-based Sustainable Forest Management (SFM), two Forest Management Plans (FMPs) were prepared. A cumulative total of 55 FMPs were validated for implementation in line with the National Forestry and Tree Planting Act (NFTPA) 2003, Forestry Regulations of 2016, and National Forest Standards.

The Ministry prepared and approved 4 Wetlands Management Plan as shown in the table 25 below.

Table 25: Wetland Management Plans prepared and approved

Name of wetland	subcounty	District	Area of wetland
Semagimbi wetland	Kiringente	Mpigi	10.978km ²
Sio-Siteko		Busia - Tororo	182 km ²
Semliki		Bundibugyo - Ntoroko	Semliki (596 km ²)
Sango Bay- Minziro		Kyotera – Masaka - Rakai	1,746 km ²

An additional 10.978km² for Semagimbi wetland, Kiringente Sub County in Mpigi district was approved, bringing the total wetlands coverage under Management planning to 32.74% (9698.988km²), including the transboundary Wetlands Management Plans. The target for 2030 under the WSSP is 50% of wetlands under Management Plans. However, achievement of this target maybe challenging unless the resource envelope including funding to Local governments is increased for this purpose.

Transboundary Wetlands Management Plans covering 2,524km²for Sio-Siteko (182 km²), Semliki (596 km²) and Sango Bay- Minziro (1,746 km²) were validated and approved.

Interventions were implemented with Stocking of fishponds (Katanyebwa-Mayanja- Nakaseke district and Agu wetland-Ngora district) and construction of a water retention facility in Kakindo wetland-Rukungiri district with 2,000 beneficiaries that have since eased the pressure on wetlands.

The figure 21 below illustrates the % cumulative increase in wetland area with approved management plans over the years excluding Transboundary Wetlands.

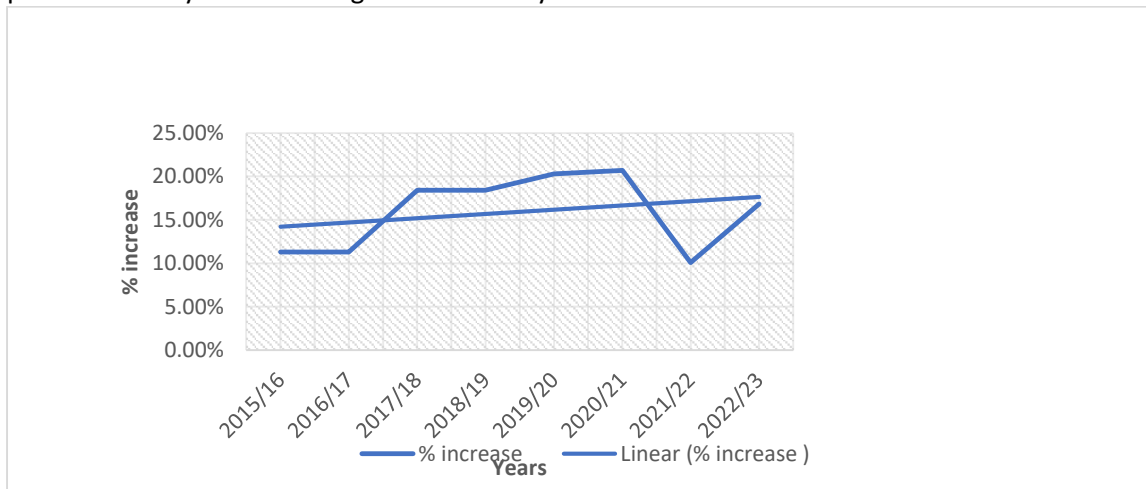


Figure 21: %cummulative increase in wetlands area with approved management plans over the years

However, there was limited effective monitoring and evaluation for the management plans in place, yet most of them have a 10-year life span.

Ensure the protection of rangelands and mountain ecosystems

NEMA engaged residents in Kisoro on Sustainable Land Management to ensure restoration and proper land use mechanisms. Over 1,500 acres of land are estimated to have been maintained. District Local Government staff and Kachwekano ZARDI (Zonal Agricultural Research Institute) staff were engaged to ensure technical input and success of maintaining of hilly and mountainous areas in Kisoro.

DESSS initiated the process of developing Rangeland Management Action Plans for Luwero and Nakaseke. The purpose of the action plans is to improve the sustainable use of rangeland by protecting, improving, and restoring the rangeland’s basic resources—soil, water, plants, and wildlife. A total of 456 stakeholders were consulted at the district, Subcounty, and Parish levels.

Assessment of the hilly and mountainous area was undertaken in the districts of Soroti, Tororo, and Bududa covering 8 hilly inselbergs areas including Tororo rock, Soroti Rock, Nalwanza Mtn Slope, Angoro rock. The assessment profile covered elevation, area covered, economic activities and challenges. The preliminary findings include; the areas are agriculture-based, with smallholder farmers growing both perennial and annual crops. The hilly areas face a range of environmental challenges including: land degradation, de-vegetation, stone mining, cultivation on steep slopes. Addressing these issues will require comprehensive planning, disaster mitigation measures, and sustainable development efforts.

DESS, with funding from UNEP, supported EAC in developing a draft Action Plan that will guide the East Africa Mountains Stakeholders' Platform, which is being developed to contribute to the integration of sustainable mountains management, particularly mountain climate change adaptation into national and regional planning and policy processes in the EAC. The Draft is awaiting approval by the EAC Council of Ministers.

Formulate economic and social incentives for plantation forests

Economic and social Incentives are payments or services that aim to increase the comparative advantage of forest plantations and thus stimulate investments in plantation. Some of the incentives so put in place include;

- Tree planting Licences in Forest Reserves for plantation establishment
- Harvesting licences to ensure that only mature trees are harvested and legally obtained
- Soft wood standards to ensure quality timber production
- Supply of high-quality tree seedlings to communities for livelihood improvement
- comprehensive Skills Training and Capacity Building programs in forestry and sustainable land management, targeting both individuals and communities.

Programs and Projects like the Global Climate Change Alliance Plus (GCCA+) project, Forest Management & Sustainable Charcoal Value Chain Project, and Tree Growing for improved and sustainable livelihood of communities in Northern Uganda Project (CARITAS PROJECT).



Photo 4-3: The left picture shows farmers learning how to set up right angle using rope for easy marking for lining of the tree seedlings and the right picture shows farmers receiving seedlings after training under the CARITAS Project.

Promote the application of performance-based sustainable forest management criteria for all forest sector development aspects and scale up agroforestry as a climate-smart agriculture practice

To advance the implementation of performance-based Sustainable Forest Management (SFM), a total of 19 Forest Management Plans (FMPs) have been meticulously developed under the Forest Management and Sustainable Charcoal Value Chain Project through a consultative approach. These plans encompass approximately 3,000 hectares of land spread across the project districts in central, northern, and western Nile regions. These FMPs are aligned to the provisions of the National Forestry and Tree Planting Act of 2003, the Forestry Regulation of 2016, and the National Forest Standards.

An additional 8 FMPs were formulated, covering an area of 500 hectares. These plans are specifically designed to rehabilitate and restore degraded natural high forests, thereby enhancing their ecological functions. The necessity for the development of Forest Management Plans is paramount in achieving this crucial ecological rehabilitation goal.

Nursery Certification efforts were undertaken across the country, encompassing four distinct clusters. The primary objective was to assess and confirm compliance with the minimum quality standards

required for operating a tree nursery. The audit process for tree nurseries was designed to ensure that seedlings were grown according to recommended seed sources, in appropriate quantities for tree growers, and utilizing best practices. A total of 287 applicants sought certification for their nurseries. These applicants underwent a thorough review, and 261 tree nurseries met the specified criteria and proceeded to the next stage, which involved field evaluation. 162 nurseries were successfully certified, comprising 77 clonal-producing nurseries and 85 seedling-producing nurseries.

Forest contractors were subjected to audits to verify whether their clients engaged in tree planting were employing qualified personnel, equipped with the necessary skills and tools, and executed their tasks at the appropriate times.

The advertisement for certification in the year 2023/2024 attracted 59 applicants. After careful assessment, 33 forest contractors were found to meet the established criteria and advanced to the next evaluation stage. 22 forest contractors from across all clusters received certification, making them eligible for recruitment to engage in various activities within the forestry value chain.

Establish dedicated fuel wood plantations necessary to contribute to achieving or exceeding net biomass surplus levels

No implementation in FY 2022/23.

Develop wetland management plans to support gazettement and demarcation of existing wetlands

Wetlands Management Planning as a tool for active involvement of grassroots resource users in wetlands conservation was undertaken during the year with an additional 10.978 km² for Semagimbi wetland, Kiringente Sub-County in Mpigi district approved, bringing the total wetlands coverage under Management planning to 32.74% (9,698.988 km²) including the Transboundary Wetlands Management Plans. The target for 2030 under the WSSP is 70% of wetlands under Management Plans. However, achievement of this target may be challenging unless the resource envelope, including funding to Local governments, is increased for this purpose.

Transboundary Wetlands Management Plans covering 2,524 km²(182 km²) for Sio-Siteko (182 km²), Semliki (596 km²), and Sango Bay Minziro (1,746 km²) were all validated and approved. Interventions were implemented with the stocking of fishponds (Katanyebwa-Mayanja- Nakaseke district and Agu wetland-Ngora district) and construction of a water retention facility in Kakindo wetland in Rukungiri district with 2,000 beneficiaries that have since eased the pressure on wetlands. However, there was limited effective monitoring and evaluation of the management plans in place, yet most of them have a 10-year life span.

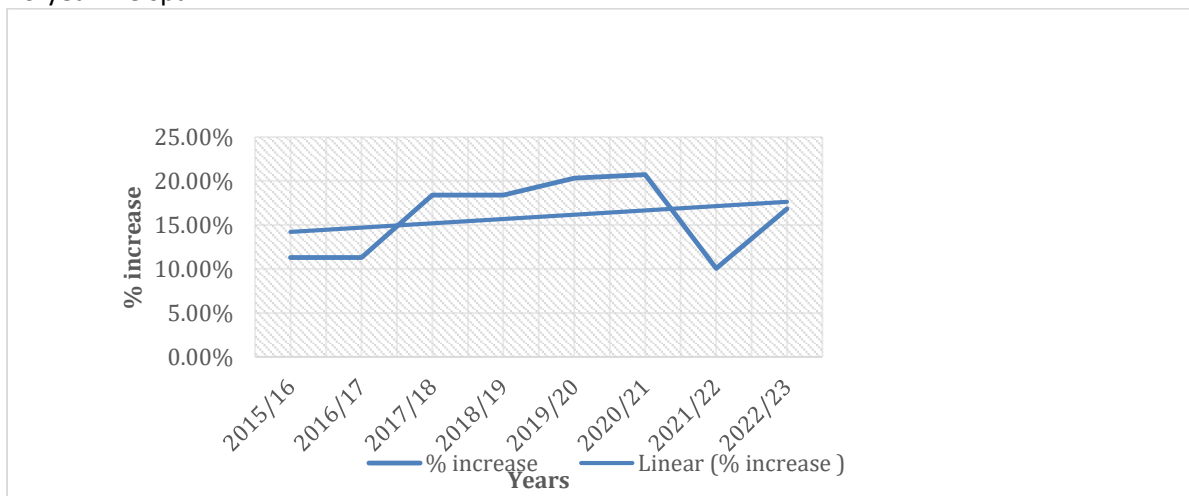


Figure 22: percentage increase in wetland area with approved management plans over the years (excl. transboundary wetlands)

Restore the natural integrity of degraded wetlands to their ecological functionality

The preliminary activities of wetland restorations are stakeholder engagements and wetland demarcations. An estimated population of 50,000 stakeholders from the districts Oyam, Nwoya, Mukono, Kumi, Tororo, Mbarara, Kampala, Wakiso, Bushenyi, Rukungiri, Butebo, Kibuku and Rubirizi were engaged for smooth wetlands demarcations and restorations. This public awareness facilitated the demarcation of 609.1km of wetlands in the said districts¹. The notable wetlands were Mpologoma wetland in Namutumba district (54 km), Nyumba wetland – Rwabara in Kisoro district (54km), Oladot wetland in Kumi district (55km), and Kakindo wetland sub-county in Rukungiri district (56km). The Green Climate Fund off-budget supported 76.7% (467.75 km), while the National Wetlands Restoration Project posted 23% (141.35km) of the demarcated wetlands during the year under review. The cumulative wetlands length demarcated was 2,096.4km out of the targeted 5,000km by 2025. With 8,613 wetlands (primary, secondary, tertiary, and quaternary) covering an area of **33,762.6 km²**, the determination of their lengths is still under computation.

The cumulative area of recovered wetlands after degradation since the FY 2019/2020 is estimated at **444.8 km² (44,480ha)** for the National Wetlands Restoration Project and the Green Climate Fund. During the FY 2022/23, there was an increase in the area of wetland recovered by **16% (20.5km²)** from the previous **128.7km² (2021/22) to 149.27km²**, albeit at a declining rate compared to the previous increase of **28.2%** in 2020/2021. This positive trajectory was mainly in Ssala-Kirika Wetland (**43.77km²**)-Kirika sub county- Kibuku, Nyamirembe wetland (**30.07 km²**) in Bushenyi, Rulindo wetland (25.21 km²) in Rukungiri districts. Other restorations were in Butebo (**12.23km²**), Rubrizi (**12.05 km²**), Kumi (**8.05 km²**), and Tororo (**7.26 km²**) districts, among others.

The cumulative wetlands area restored now stands at **59,407 ha**, surpassing the 55,906-ha target in the Nationally Determined Contribution implementation plan.

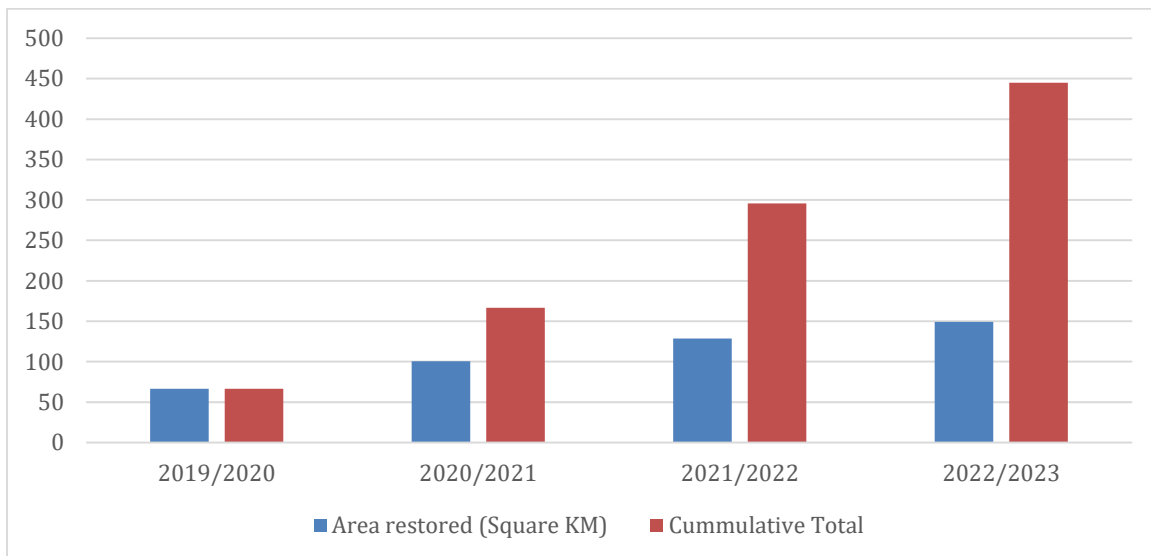


Figure 23: Showing trends in wetland area restored km² over 4 years period

Cancellation of land titles issued in wetlands

A pilot holistic revocation of land titles was undertaken for the Kinawataka wetland system and resulted in the cancellation of 302 titles. Others are pending the legal processes.

The degraded ecosystems restored and maintained were:

200 Ha restored along River Nile in Kangulumira Sub-County in Kayunga District, Butagaya and Budondo Sub-Counties in Jinja District and Njeru Municipality were under maintenance to ensure that bamboo planted is not destroyed by human activities. Approximately 30 % of the planted bamboo has been

destroyed. However, the remaining 70% is surviving and is being harvested by the communities for building poles and crafts.

76.5 Km of the river protection zones were assessed for demarcation along River Wambabya, River Nile and Lake Kyoga. These have been planned for demarcation in FY2023/24.

A total of 70.1km of river banks were also demarcated with concrete pillars along River Wambabya (15km), River Nile (15km along Kamuli District), River Enyau in Arua (30.1km) , River Sironko along Sironko District(16.4km) .During the process, a total of 1211 stakeholders were also sensitized on sustainable environmental management and use of nature based solutions to reduce communities vulnerability to climate change . The demarcation was funded by both GoU funds and with support from the GEF (R. Enyau and R. Sironko) under the Reducing Climate Change Vulnerability of Local Communities in Uganda through Ecosystems based adaptation (EbA) in Wetland and Forest Ecosystems project (EBA) implemented by the Directorate of Environmental Affairs . This is below the planned annual target of 100km.

In the EBA project, four Vulnerability Impact Assessment (VIA) and Risk Assessments (RAs) were conducted at the four project intervention sites/ ecosystems of (R Rwizi, L.Mburo and Nakivale; R Rwambu-Mpanga; R Sironko; and R.Enyau). The project is being implemented in the four wetland ecosystems and associated forests of Rwizi-Mburo and Nakivale in Mbarara, Mbarara City, and Isingiro districts; Rwambu-Mpanga in Ibanda, Kamwenge, and Kitagwenda districts; River Enyau in Arua City and Arua district and River Sironko in Sironko and Bulambuli districts. The VIA and RA studies provided evidence-based information for programme implementation, and shed light, on the current vulnerability status and the predicted vulnerability of local communities to climate change. The national and district-level planners and policy-makers from the 10 project districts will be trained on the use of RA and VIA outputs in FY2023/2024.



Photo 4-4 showing crude alcohol being discharged directly into R. Enyau

In addition, the EBA project supported a study to document lessons learned and best practices in ecosystem-based adaptation practices from previous EbA projects conducted in Uganda. Findings revealed that the most adopted climate change adaptation measures include livelihood diversification, mulching, and rainwater harvesting, among others.

Markets and livelihoods Assessment studies were conducted for the four ecosystems. The main objective of the study was: to conduct a market analysis of alternative livelihood strategies and to design alternative livelihood strategies for local communities living around degraded wetlands and forest ecosystems. Also, an assessment was conducted to identify multi-use tree species for wetland and forest restoration. Tree species identified include: *Erythrina abyssinica*, *Bamboo species*, *Khaya anthotheca*,

Milicia excelsa, Maesopsis eminii, Ficus sycamorus, Albizia coriaria, Casuarina equisetifolia, Melia azedarachta, Khaya anthotheca.

The EBA project also conducted a mapping exercise across four ecosystems in which 22,385 ha of wetland, 340 ha of local forest reserves, and 1,931 km of riverine were mapped. 15,154 ha of wetlands were found highly degraded, and 113 ha of forests were found severely encroached on by local communities; these wetlands and forests are in dire need of restoration for the resilience of these ecosystems.

All the above interventions are put in place to ensure the restoration of the ecosystems to ensure that they provide essential goods and services to the communities living adjacent to them to reduce the vulnerability of both the ecosystems and the local communities to climate change impacts.

NEMA, with support from EPPU, carried out 30 key inspections that contributed to evictions and restoration of the fragile ecosystems like Lubigi and Nabisasiro wetlands in Greater Kampala Metropolitan Area (GKMA); Kichamba and Kahaya wetlands in Bushenyi district; riverbanks such as Ajia, Lenze, Nyagak, and River Nile, as well as wetlands in Kole (Aboke, Amillo, Te -Aboro, Alito); wetlands and hilly areas within Kigezi highlands where tea growing is causing significant adverse impacts on wetlands, riverbanks and lake shores. Others include inspections of Kyangwali Mixed-Land Use Project, Hoima Sugar, and Sino-Mbale Industrial Park.

Protection and restoration of strategic fragile ecosystems undertaken

NEMA undertook to protect Lake Mbuho watershed area, undertook 2 stakeholder engagement workshops to address the restoration and management of the degraded sections of Nyacum and Temogo Wetlands in Apac Municipality, Apac District.

NEMA organized 2 awareness community meetings on wetland conservation in the Kyenjojo District with the participation of community-based groups, civil society organizations, and local opinion leaders from Aswa Butiiti and Wafuba Nyakisi sub-counties.

Community awareness meetings held on the conservation of Mabira Central Forest for over 300 participants as part of World Environment Day (WED) in Buikwe District.



Photo 4-5: NEMA ED planting a tree during WED in Luwero

2000 Ha of degraded riverbanks and lake shores restored and maintained

Restoration activities were undertaken in riverbanks such as Ajia, Lenze, Nyagak, and River Nile, as well as wetlands in Kole (Aboke, Amillo, Te -Aboro, Alito)

Implement national targets on threatened/ endangered species, restoration of natural habitats, and management of invasive alien species with support and participation of local communities and indigenous peoples

Identify and declare special conservation areas to raise the conservation status of areas outside protected areas that are important biodiversity areas

No special conservation area was gazetted

Integrate environmental management in all disaster and refugee response interventions

DESS is the focal point for the coordination of Environment and Natural Resources (ENR) interventions under the Ministry of Water and Environment and Water Refugee Response Action Plan. During the FY 2022/23, the Department supported the preparation of the National Pledge to be presented at the Global Refugee Forum, which will be held in December 2023 in Geneva, Switzerland.

The Department also carried out compliance monitoring assistance of 5 refugee settlements, including Nakivale, Kyangwali, Acholi Pii, and Kiranyandongo. The key ENR issues that were observed were the lack of feasibility studies and Environmental Impact and Social Assessment (ESIA) in choosing areas to establish refugee settlements. The infrastructure projects do not go through environmental screening to mitigate the social and environmental impacts. Lastly, it was observed that the surrounding environment, like wetlands and forests, is heavily degraded due to over-exploitation. There is a need for the Department to be allocated adequate funds to implement the ENR interventions under the Ministry's Environment and Water Refugee Response Action Plan.

Procurement of a suppliers of fuel wood to Persons with Special Needs in the refugee settlements in the North, West Nile and Western Uganda under the IFPA-CD Project is in advanced stage. Delivery will commence in the FY 2023/24.

Improve the management of district and private forests

During the FY 2022/23, the forestry sub-sector mobilized a grant to forestry in the local governments through support from the World Bank-funded Uganda Intergovernmental Fiscal Transfer (UGIFT) Project. This project intends to enhance extension service delivery of local governments as well as provide the much-needed technical support for forestry to infrastructure projects funded under UGIFT.

Draft Agroforestry guidelines were developed during the reporting period, and are expected to be endorsed for public use in the FY 2023/24. These guidelines highlight five thematic areas including the need for a clear coordination and institutional arrangement; capacity development; technology development and innovation; knowledge management, extension and access to appropriate inputs and financing. The preparation of these guidelines was supported by our partners including VI Agro- forestry, with technical inputs from the Uganda Farmers Federation and ICRAF-CIFOR Uganda.

Leverage technology to strengthen enforcement capacity for improved compliance to standard agro-forestry practices

There was activity implemented under this intervention.

Mobilise and significantly increase financial resources from all sources to conserve and sustainably use natural resources and mitigate disasters

During the reporting period, the forestry sub-sector was able to mobilise financing to the tune of USD 178.2 million for the implementation of IFPA-CD project. This project will promote sustainable forest management in the protected areas (National Parks for tourism services provision and CFRs) as well as enhance the restoration of degraded areas of the refugee hosting communities in 18 districts.

A USD 39 million Project Proposal titled "Accelerating Uganda's REDD+ Strategy Implementation, and Upscaling Forest Landscape Restoration (FLR) in the Northern Moist Farmlands and Karamoja Landscapes of Uganda" is due for submission to the GCF for financing.

A Concept note was approved in June 2023 by the GCF Board, and a proposal is being prepared for the USD 37.2 million project "Enhancing the resilience of ecosystems and livelihoods through sustainable forest and land use management in northern and Karamoja landscapes "to be implemented in collaboration with IUCN.

UGX.209.3 bn EU funded Partnerships for Forests Development Project (PAFODEP) aimed at enhancing the contribution of Uganda's forests and forest resources to national economic development and global efforts in addressing the loss of biodiversity and climate change. This forest partnership project financing was approved and endorsed at the UNFCCC COP 27 event on 8 November 2022 in Sham El Sheikh in Egypt.

Initiated preparation of a USD 9.8 million Project Concept Note for the proposed project "Promoting sustainable Climate Smart Cities in Uganda through Green Urban Planning". This project is aimed at improving green assets management, landscape management policy, and integrated neighborhood planning in Cities in Uganda.

In addition, there are a number of Off budget resource mobilization initiatives undertaken during the reporting period. A USD 200,000 Project, "Turning the tide on deforestation through building partnerships to combat intensifying impacts of climate change, forest fires, and zoonotic diseases". This project is being implemented by the Forest Sector Support Department (FSSD) in collaboration with the United Nations Forum on Forests (UNFF) and the UN Department of Economic and Social Affairs (DESA).

The REDD+ Programme mobilized financing from the UN REDD to support the enhancement of REDD+ Readiness towards Results Based Payments, and USD 1 million was secured.

The Department of Wetlands Management finalized two feasibility studies for the development of bankable projects. This is intended to be used as a resource mobilization tool to restore the degraded wetlands in the Country.

NEMA has mobilized more funding from GOU that has enhanced its budget from UGX18 bn in FY2022/23 to UGX 42 bn in FY2023/24 that will, among others, facilitate the acquisition of some environmental monitoring equipment to improve environmental compliance monitoring and enforcement.

NEMA developed five project proposals/project concept notes which were reviewed by the Project Development Committee (PDC):

- Enhancing Waste Management Value Chain in Uganda.
- Kasese 5 Catchment Protection and Livelihood Improvement Project.
- Strengthening Environmental Governance and Coordination in Uganda- SEGCU).
- Lake Kyoga Basin and Climate Change Resilient Project.
- Support to Enhancing Electronic Waste Management in Uganda.

Strengthening Environment Monitoring and Compliance (SEMC) Project 5 project proposals/project concept notes were reviewed by the PDC:

- Enhancing Waste Management Value Chain in Uganda.
- Kasese 5 Catchment Protection and Livelihood Improvement Project.
- Strengthening Environmental Governance and Coordination in Uganda- SEGCU).
- Lake K yoga Basin and Climate Change Resilient Project.
- Support to Enhancing Electronic Waste Management in Uganda.
- Strengthening Environment Monitoring and Compliance (SEMC) Project.

NEMA has developed the Infrastructure Development Project for funding of the Environment Management Activities at NEMA and supporting Lead agencies; this project is at the profile stage in the Development Committee of MoFPED. NEMA is partnering with the Ministry of Finance, through the Climate Finance Unit, to tap into climate financing for environment management as a buffer to climate change impacts by enhancing adaptability.

Increase funding for promoting non-consumptive uses of natural resources

NEMA participated in key regional and international fora and meetings that included the 18th AMCEN Session in Dakar, Senegal; meetings in preparation for CBD COP15 and post-2020 Global Biodiversity Framework (GBF); Nairobi, Libreville (Gabon) and Montreal; intergovernmental meetings/negotiations on internationally legally binding instrument to end plastic pollution (Naivasha, Uruguay and France(Paris); scientific, technical and project meetings on persistent organic pollutants (POPs)-Stockholm Convention, Basel Convention on trans-boundary movements of hazardous wastes and other wastes, Vienna Convention and Montreal Protocol, and Minamata Convention on Mercury.

The Development Committee (DC) at the Ministry of Finance Planning and Economic Development (MFPE) approved the UGX 733 bn project feasibility for the Forest Resources Development and Management project under the NRECCLWM Programme. The Feasibility Study is ongoing. The project aims at increasing Uganda's forest cover from the current 13.3% to 15%, and e annual seed production from 20 tons to 40 tons and assorted annual seedlings from 40 million to 80 million by 2025.

Carbon trade and Climate financing agreements for Sustainable Forest Management require government commitments in line with international protocols on Biological Diversity, Climate Change and Sustainable Development.

NEMA developed the administrative fees and Express Penalty Schemes to ensure fees, penalties are charged to environment degraders. These are expected to improve the National Environment Fund base capital.

Assure a significant survival rate of planted tree seedlings

The average survival of tree seedlings established in the plantation management area was 75%. Survival of tree seedlings supplied to the farmers is compromised by a number of factors, including lack of sufficient technical advice provided by the forestry staff to the farmers and limited financing to facilitate the staff to engage with the farmers. For the tree seedlings supplied, the survival rate was about 65%.

4.3.2 Maintain and/or restore a clean, healthy, and productive environment

Develop and implement a framework that reduces adverse per capita environmental impact of cities (air quality and waste management practices)

No action was implemented in FY 2022/23

Mainstream environment and natural resources management in policies, programmes and budgets with clear budget lines and performance indicators.

The DESSS undertook compliance Inspection assistance of Environment and Social Issues for Water And Environment in Infrastructure Projects Implemented Under Ugift project in 65 Local Governments. The local governments were also guided on the use of the ENR guidelines for local governments. The districts include; Isingiro, Mbarara, Rampara, Ntungamo, Ntungamo, Kamwenge, Kyegegwa, ibanda, Hoima, Kyenjojo, Bushenyi, Mitooma, Masindi,Sheema, Rubirizi, Buikwe, Bukomansimbi, Butambala, Gomba, Kayunga, Kiboga, Kyankwanzi, Luweero, Lwengo, Lyantonde, Masaka, Mityana, Mpigi, Mubende, Mukono, Nakaseke, Nakasongola, Rakai, Kiryandongo, Wakiso, Budaka, Butaleja, Iganga, Jinja, Kaliro, Kamuli, Kapchorwa, Kibuku, Mayuge, Mbale, Namutumba, Pallisa Sironko, Soroti, Tororo, Adjumani, Agago, Arua, Gulu, Kaabong, Kitgum, Koboko, Lamwo, Lira, Moroto, Moyo, Nebbi, Otuke, Oyam, Pader, Yumbe. As a result, the Districts have improved their compliance by using the guidelines are as observed from the quarterly reports that are submitted to the DEA.

Improve coordination, regulation, and monitoring of environment management at both central and local government levels

The annual Lead Agency Environment Report was produced, reviewed, and approved by the NEMA Board.

- In collaboration with PAU and OPM, NEMA developed TOR for the consultants to develop the Tier-2 plans for the 3 districts.
- The National Environment Act No.5 of 2019 is being operationalized through the NEMA. The Lead Agency activities were Enforcement, ESIA issuance, Research, Coordination, Regulatory, and monitoring activities.
- NEMA has participated in Local Government Budget Consultative workshops in all the regions of Uganda to engage District Local Government Head of Departments and leaders on Planning, budgeting, and prioritizing funding of environmental management in their jurisdictions; after all, Natura resources are some of the biggest sources of Local Revenue
- A regional District Environment Officers' performance review meeting was organized where 82 (82%) officers participated in the meeting (male:54 (66%) and female: 28 (34%).
- Standard Operating Procedures for Lead Agencies in management and compliance to environmental laws were developed NEMA in the FY2022/23 received a total of 4,762 ESIA-related submissions for review, and in the same period, a total of 5,143 ESIA-related submissions were assessed and finalized, the extra is a result of handling backlog submissions.
- The Authority litigated 112 and 60 criminal and civil cases, respectively. Meanwhile, 156 criminal cases are under investigation for prosecution as of the close of FY2022/23
- NEMA has maintained the Environmental Information Network (EIN) that comprises the key Lead Agencies, civil society, and academia through quarterly meetings for performance review and information sharing, field monitoring, and participation in projects.
- NEMA is developing an Environment Licensing and Management Information System (ELMIS), which, when completed, a GIS component on timely environment reporting will be integrated. The contract for the development of the environmental licensing and information management system was signed and the system is being developed



Photo 4-7 NEMA inspection of Klnawataka wetland encroachment

64 local governments were supported by the DESSS in mainstreaming ENR into their district development plans and budgets. These include; kampala, Luwero ,Mukono, Buikwe, Wakiso, Nakasongola, Nak Sironko, Bulambuli,,Kitagwenda, Isingiro, Ibanda, , Kyegegwa, Mbarara district, Mbarara City, Arua District, Kabale District , Kabale Municipality ,Kisoro ,Kisoro Municipality ,Rukiga Rubanda ,Ntugamo,Rukungiri, Kanungu ,Rwampara, Bushenyi,Sheema,Mitoma,Kasese ,Kabarole, Fort portal city, Ntoroko ,Bundibugyo ,Hoima, Hoima city, Kikube, Nwoya, Bulisa, Kakumiro, Rubirizi, Butambala, Mbarara City, Busia, Namayingo , Kwania, Kalaki, Mbale, Ngora, Soroti, Kibuku, Budaka, Namutumba, Mbale, Sironko, Pallisa, Butaleja , Moroto MC, Moroto DLG, Napak, Amudat, Nakapiripirit,

and Nabilatuk. Most LGs visited were not adhering to the conditional grant planning guidelines and were implementing mainly awareness and environmental compliance monitoring activities.

The DESSS also conducted hands on training in environment impact identification and planning in 20 selected local governments including; Kabalore, Bundibugyo, Ntoroko, Kamwenge, Bunyagabu, Nakaseke, Luwero, Mpigi, Wakiso, Mukono, Bududa, Kalaki, Kaberamaido, Manafwa, Lira, Amolatar, Oyam. Apac and Dokolo.

Strengthen control and management of chemicals, pollution and environmental disasters

Chemicals Regulations finalized and submitted to the Minister. NEMA has undertaken compliance assistance initiatives and technical visits to industries for adoption of Cleaner production initiatives.

Increase funding on decentralized environment management

NEMA engage Government and Local Governments for increased ENR management funding at DLG levels. NEMA developed the Administrative fees and express penalty schemes which are partly revenue mobilization efforts to fund ENR management levels.

Formulate and implement vehicle emission standards and sustainable management of chemicals to curtail the high levels of air, land and water pollution particularly in urban areas

Vehicle Emission Standards have been formulated, these are part of the National Environment (Noise and Pollution) regulations. A chemicals regulation was drafted and submitted to the Minister in Charge of Environment; a chemicals register/ database has been developed.

Integrate education for sustainable development in national curricular at all levels for an environmentally literate citizenry

NEMA facilitated the review of the curriculum of Uganda Wildlife Training Institute in Kasese and co-facilitated the development of Climate Change IEC materials with National Curriculum Development Centre (NCDC) and UNATCOM.

NEMA continued to promote education for sustainable development (ESD) and school environment education program (SEEP) through: partnerships with education institutions like Muni and Lira universities, National Curriculum Development Centre; establishment of 5 environment clubs in Hoima City; and school greening initiatives (tree planting and other environment conservation best practices) in Kumi District.

NEMA carried out publicity of its activities through a number of IEC materials that included: the NEMA Newsletter, online Christmas messages, sending holiday and Christmas cards online (3).

It also produced and disseminated a number of policy and statutory documents which include: the NEMA Board Charter; the Annual National Lead Agency Environment Management Report for 2020–2021; the Annual Corporate Report for FY2021-22; the Albertine Graben Environment Monitoring Report 2022; the NEMA Human Resource Manual 2022; and the Monitoring, Evaluation, Accountability, and Learning (MEAL) Framework for the NBSAP II of Uganda (6).

Undertake applied research and innovation on sustainable consumption and production to ensure resource use efficiency to reduce domestic material consumption per capita

The DESSS undertook training of 6 industries to promote use of cleaner production in order to increase on resource use efficiency. NEMA signed Memorandum of Understanding (MoU) with Makerere University to enhance research network between the two institutions.

4.3.3 Promote inclusive climate resilient and low emissions development at all levels

Building capacity for climate change adaptation and mitigation including hazard/disaster risk reduction

Conducted a training on gender-transformative climate change adaptation and mitigation in 21 districts. The audience were drawn from national government institutions, DLGs and Non-state actor (CSO and Private Sector). The eight districts in West Nile. (Arua, Nebbi, Zombo, Koboko, Yumbe, Maracha, Moyo and Adjumani) 4 districts of the karamoja region (Moroto, Nakapripit, Abim, Napak) and 9 districts of the central cattle corridor (Nakasongola, Luwero, Nakaseke, Kiboga, Mubende, Gomba, Sembabule, Kalungu, Lyatonde. Key Ministries, Departments, and Agencies (MDAs) were also supported to provide strategic support to climate change, gender and climate change mainstreaming capacity, include but are not limited to MAAIF, MoLG, MLHUD, MGLSD, NARO, MUK, UNMA, MoFPED.

Built capacity of over 100 district officials Nakasongola, Nakaseke, Luweero, Mitooma, Kagadi and Kasese to mainstream climate change in their respective District Development Plans

Conducted a training a workshop for CCD technical Staff in Jinja, where a desk review of the draft on the National Climate Change Act indicating the necessary implementation needs of the different parts and sections of the Act, as well as indicating progress on each. A draft implementation action plan was developed.

LIFE-AR programme

In April 2020, Uganda embarked on a 10-year journey to implement the Least Developed Countries Initiative on Effective Adaptation and Resilience (LIFE-AR). The LIFE-AR programme aims to strengthen the LDCs' in-country institutions, capabilities, and systems to deliver climate resilience over the long term, in line with country priorities. Under the leadership of the Ministry of Water and Environment, and with support from other key MDAs, Uganda selected the Devolved Climate Finance Mechanism (DCF) as the driving vehicle to implement the LIFE-AR and specifically deliver 70 percent of climate finance for locally prioritized climate adaptation investments.

In line with the whole-of-society approach, the programme established the relevant multisectoral and cross-government governance structures, including key line Government Ministries and Departments, Academia, and Civil Society to steer the implementation of the programme in the country and deliver on the following;

- Design a country-tailored “Devolved Climate Finance (DCF) Mechanism to channel 70% of climate finance to the local level.
- Build Capacity of both central and local government to implement DCF
- Strengthen the capacity of Local governments and communities to prepare and implement viable projects for climate resilience
- Support locally prioritized climate investments at the local level (starting with 12 pilot districts)
- Roll out the DCF and scale out climate investments across the country.

In addition to the formation of the governance structures in the 2-year establishment phase, the following have also been achieved;

- A DCF design note describing key features of the DCF mechanism was developed.
- Guidelines for operationalization of the DCF designed
- The National Monitoring, Evaluation, and Learning Framework developed.
- Developed a financial protocol and governance framework to guide the flow, disbursement, and management of LIFE-AR funds.
- Developed a communication plan for the programme.
- Undertook a capacity needs assessment in the pilot districts to inform the skills development for DCF and LIFE-AR implementation.

The programme is expected to be rolled out to the pilot districts in September 2023, marking the start of the “Test and Evolve Phase.” This phase will run for 3 years with a budget of 10.6 million pounds and will be characterized by robust skills development and investments in the twelve districts of Rakai, Lwengo, Kalungu, Ntungamu, Kibaale, Pakwach, Yumbe, Pader, Ngora, Kalaki, Karenga, and Kaabong. Learning from the 3-year phase will then shape the rollout of the programme in other parts of the country in the subsequent 5-years.

Promote continuous integration of climate change and disaster risk reduction in planning, budgeting and reporting

Conducted a training workshop for Transport and Waste sector participants to address GHG capacity needs and NDC tracking for MRV implementation.

Hands on training on the use the national MRV tool for Agriculture, Forestry and Other Land Use (AFOLU) sector conducted for one hundred national and sub national participants.

Conducted advocacy and awareness on gender and climate change mainstreaming of selected Agriculture policies for MDAs.

Identified adaptation actions under Local Climate Adaptive Living (LoCAL) Facility pilot districts of Nwoya, Kasese, Zombo and Nebbi validated

Undertake issuance of carbon footprint certificates to support the industrial sector move towards carbon neutrality

Developed a concept note to do a feasibility on issuance on carbon certification in industrial sector.

Finalize the development of a national Green House Gas Inventory and its Monitoring, Reporting and Verification System (MRVS).

Developed the MRV tool with components in greenhouse gas inventory, mitigation and adaptation action, sustainable development goals and support/finance.

Capacity building exercise for Agriculture, Forestry, Wetlands and land use sectors (62 participants) was conducted on the use of MRV tool.

Review Uganda’s 2015 Nationally Determined Contributions in light of local emerging issues and new global climate change action ambition.

The updated NDC was completed and submitted in September 2022.

The core indicators for NDC tracking cut across adaption and resilience, mainstreaming, mitigation, and finance mobilized.

International Reporting

Initiated the process to prepare the second biannual update report. The report will highlight an update of the national greenhouse gas inventory, information on mitigation actions, and information on support needs (capacity building, technology transfer and development, and finance).

4.3.4 Promote natural resource accounting to improve the national income measurement

Undertake economic valuation of selected ecosystems and their services

The Ministry of Water and Environment, through the Wetlands Management Department, earmarked resources to conduct feasibility studies for the development of two fundable proposals for wetlands restoration and sustainable management of rivers Katonga and Kafu wetland systems that included economic valuation. The studies are envisaged to generate relevant information on the current situation of the wetland systems as well as the potential project sites and interventions. They will form a basis for the preparation of two bankable and feasible projects.

In the same year, two ecological and socio-economic studies for Mulehe, Kaku-Kiyanja, and Wamala wetlands were initiated to ensure their designation as Ramsar sites but couldn't be finalized due to financial constraints.

Integrate natural capital and ecosystem service accounting into the system of national accounts

With support from the World Bank, the construction of forest ecosystem accounts is ongoing. It was being built on the initial work done in 2020 in which a framework for the Forest, Lands, and Wetlands Ecosystem Accounts was constructed.

Build sectoral, institutional, and local government capacity in natural capital accounting

No implementation in FY 2022/23.

Mainstream climate change resilience in programmes and budgets with clear budgets lines and performance indicators.

Identified adaptation actions under Local Climate Adaptive Living (LoCAL) Facility pilot districts of Nwoya, Kaseke, Zombo and Nebbi and validated.

Developed tools for climate and disaster risk screening (CDRS tools) and built capacity of state and non-state actors. Six sectors of Agriculture, Health, Transport, Energy, Water and Environment and Infrastructure were trained on how to use the tools.

Rolled out of tools through government processes to key institutions, including local government. Transferred the tools and materials developed to the appropriate government agency MWE/CCD (or risk of losing resources once project ends). This activity is pending the launch of website at high-level and technical level workshop.

55 district officials in Buikwe trained on Climate Risk and Disaster screening for projects and programmes, the Climate Change Act mandates each district to develop her own Climate Change Action Plan, in line of the above, the Department is supposed to train and guide each local government on how to develop its own Climate Action Plan.

Build gender response capacity in climate change monitoring and evaluation systems through integration in local government performance assessment and national monitoring frameworks

Conducted a training on Capacity Needs Assessment tool for non-state actors and loading it on Kobo. The training aimed at loading the tool on the Tabs, and conducted a pre-assessment before the capacity needs assessment for the non-state actors and other technical staff in the project districts.

Adaptation interventions under the Global Climate Change Alliance+ project were monitored in the districts of Luweero, Nakasongola, Nakaseke, Sembabule, Kalungu, Gomba, Kiboga, Lyantonde and Mubende.

Conducted a training on gender and climate change mainstreaming aimed at addressing the existing technical gaps on gender and climate change mainstreaming. This training targeted selected district technical staff, the chief administrative officers, and LC 5 Chairperson of the project districts.

Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Nationally Determined Contributions (NDC), and Long-Term Climate Strategy (LTS) communication material prepared. Funds not yet available for printing the developed material.

With funding from the Swedish government through FAO is supporting the various schools in the central region to carry out awareness raising amongst schools through organization of national climate change diplomacy and dialogue events including schools, youth, and women in climate change awareness and sensitization events.

Printed and disseminated the National Climate Change Act (2021) and the updated Nationally Determined Contributions/Climate Action Plan in the districts of Kamuli, Nakaseke, Luweero, Nakasongola and Kiboga.

Establish eco-friendly municipal and city waste collection and sorting facilities, and systems for recycling and reuse as a remedy for immense methane emissions from open landfills

No Action was implemented in FY 2021/22.

Formulate green and climate change resilient and mitigative building codes for the housing sub-sector
Reporting to be done by the Ministry of Lands, Housing, and Urban Development.

Enhance outcomes from the negotiation of carbon projects and develop bankable projects

Developed a number of concept notes, namely;

- Developed a proposal for the digitalization of the Climate Change Department resource centre developed. Resource mobilization for implementation in ongoing
- Developed a concept note, TOR, and budget for a national gender and climate change strategy and action plan for possible funding.
- A concept not for technical assistance to develop a proposal based on the technology needs assessments. The concept was submitted to the Climate Technology Center and Network(CTCN) and approved. CTCN identified a consultant/resource person to support the country in developing a fully-fledged concept proposal for submission to GCF for funding.
- Restoring the health of agricultural rangelands and mountain landscapes through Ecosystems Based Adaptation.
- Strengthening governance for gender-responsive climate change planning and management in district local governments.
- De-risking the expansion of post-harvest handling facilities
- Introduction of Electric Motorcycles
- Strengthening climate resilience of health systems in disaster risk-prone areas

Develop local finance solutions tailored to micro, small, and medium enterprises engaged in sustainable production and generation of climate change-responsive technologies

No Action was implemented, pending Climate Change Regulations

Build partnerships with stakeholders to formulate instruments such as climate and green bonds

Ministry of Finance Planning and Economic Development, in collaboration with the Ministry of Water and Environment, has initiated work on the formulation of innovative financing instruments, for example, green bonds (Work in progress).

Increase awareness on sustainable use and management of environment and natural resources

In line with the cornerstones for sustainable use and management of natural resources, various interventions targeting community awareness were undertaken during the reporting period. For instance, the Wetlands Management Department carried out massive campaigns during the World Wetlands Day Celebrations 2023, which was held at Gweri sub-county headquarters grounds, Soroti district.

Awareness materials, including 200 T-shirts, 5 banners, and 500 booklets, were disseminated during celebrations. The event also presented an opportunity for the department to account to the general public the achievements, challenges, and emerging issues for wetland management and chart a way forward that will ensure wetlands continue to provide their vital services for the present and future generations.

NEMA conducted four consultative and awareness meetings were held with the four lead agencies (Hoima, Buliisa, Kikuube, and UWA). NEMA carried out a number of sensitization and awareness

programs to enhance environmental literacy in the country. Conducted sensitization of 80 leaders (out of 50 targets) in 2 meetings with a focus on their roles in environment management; production and dissemination of radio and TV programs on environmental integrity and sustainability. 13 radio programs produced with a focus on the management of wetlands, and use of plastics and littering.

NEMA conducted two radio talk shows on environmental protection (CBS and Radio One). 112 spot messages on four radio stations (Capital FM, Radio One, Radio Simba, and Community Green Radio) and 16 spot messages on UBC, BBS, and NTV). 13 radio programs were produced with a focus on the management of wetlands, use of plastics and littering.

The Taasa Obutonde media campaign aims to raise public awareness of the environmental risks from the improper use and disposal of plastics. The partners include Vivo Energy, Next Media, Uganda Breweries, Airquo, Stanbic Bank, KCCA, and NEMA. Furthermore, NEMA identified and established 200 community-based champions on environment management in a clean-up exercise in Kiwatule, Nakawa Division in Kampala.

Develop a clear communication strategy for sustainable natural resource management.

The Wetlands Management Department Communication, Capacity Development, Education, Participation, and Awareness (CEPA) Strategy 2023-2028 was developed as a building block for the communication and awareness efforts on wetland conservation and management. The Strategy provides for multiple techniques and platforms through which sharing of ideas, policies, systems, tools, best practices, lessons learned, and experiences in wetland management at the local, national, and regional levels.

Undertake targeted sensitization campaigns with information packaged in forms tailored to the information needs of recipients

- The ROOTS Project campaign is aimed at enhancing tree planting but with a very strong element of sensitization of all citizenry in Uganda. A strategy for communicating and sensitizing all Ugandans on the dire need to plant trees and restore our degraded motherland is available under this campaign, and a number of private sector partner radio and TV talk shows were undertaken during tree planting events.
- The National Environment Management Authority (NEMA) undertook Community sensitizations in Kiruhura District.
- NEMA conducted 2 stakeholder engagement workshops were carried out to address the restoration and management of the degraded sections of Nyacum and Temogo Wetlands in Apac Municipality, Apac District.
- NEMA organized 2 awareness community meetings on wetland conservation in the Kyenjojo District with the participation of community-based groups, civil society organizations, and local opinion leaders from Aswa Butiiti and Wafuba Nyakisi sub-counties.
- NEMA further organized 2 awareness workshops on wetland conservation in Kyenjojo District, involving community-based groups, civil society organizations, and local opinion leaders from Aswa Butiiti and Wafuba Nyakisi sub-counties that involved 117 (44 men and 73 women), and 63 participants (19 men and 44 women) respectively.

Build strategic partnerships with other players, such as the private sector, cultural institutions, media, and politicians

The MWE and NFA are engaging with the Buganda Kingdom, Uganda Breweries, Stanbic Bank, Coca-Cola, and the Church Foundations on tree planting. An MoU has been signed to facilitate the partnership of the different companies under the ROOTs program.

The Ministry of Water and Environment, through the Forest Sector Support Department, has signed a Memorandum of Understanding with Kijani (Forests for Change) to facilitate the implementation of forestry and climate change interventions aimed at the development and sustainable management of

forest resources and the implementation of initiatives aimed at fostering adaptation to and mitigation of impacts of climate change in the Acholi region. This will be done by promoting sustainable charcoal production through planting fuelwood tree species and providing farmers with energy-saving technologies.

55 stakeholder partnerships were strengthened with corporate institutions, cultural, religious, educational institutions, and community-based organizations engaged in the promotion of national tree planting and restoration of forests. Tree planting campaigns were carried out through NFA's own planting, Community Tree Planting under the Parish Development Model (PDM), Saw log Production and Grant Scheme (SPGS), Private tree farmers, Refugee hosting communities under the UNHCR project, Church of Uganda, Buganda Kingdom, Parliament, Conservation Organizations (WWF, WCS, and world Bank IFPA-CD Project for investing in Forests and Protected Areas for Climate Smart Development).

NEMA supported the re-establishment of soil conservation measures on farms with the help SLM coordinators from KAZARDI in Kisoro District; 1,600ha expected to be conserved.

Under Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda project, 20 media representatives from South Western and Eastern Uganda were trained in wetlands general environment reporting.

Promote research, innovation, and adoption of green appropriate technology to foster sustainable use and management of Water Resources and ENR

Applied Technology Center (ATC) assessed six technologies using the Technology Applicability Framework (TAF) to ascertain their fit for intended purpose. Three out of six passed the validation test. The successful three were water quality enhancement technologies i.e., PEACE water filter, ANOSAN Aqua Sanitizing Solution and ECO H2O Inline water filter promoted by Affordable Human Needs, blue Planet Ag and Eco solution respectively.

ATC organized the second innovations challenge that attracted 8 participants from Makerere University, Busitema University, Space Explorer and Nakawa Vocational Institute. Innovations presented included; the Swap for water – a technology that involves repurposing of a petrol engine to pump water for irrigation and domestic use, automation of water distribution network to minimize intermittent water supply, remote sensing in water distribution, 3D concrete printing to reduce material wastage and environmental pollution during construction, volarization of waste chicken feathers for water purification, trenching machine used in trenching for ground water piping, sensor for precision agriculture and the smart water borne toilet.

ATC carried out capacity building of 16 youth who were skilled in making and marketing assorted products from solid waste, 20 District Water Officers and 5 MWE young professionals were trained on technological options for water management, 68 boda-boda riders on faecal sludge emptying and business, formed and equipped 3 boda-boda riders pit emptying associations in Mukono, Kamuli and Adjumani respectively.

In partnership with Makerere University and with partial funding from UNICEF, the ATC successfully organized the second national Appropriate Technologies Expo 2023 that brought together about 64 exhibitors from the water, environment, agriculture, health sectors and academia. The expo provided a safe gathering for stakeholders with the same goal, created an opportunity for the public to learn about availability and suitability of in-country innovations/technologies. It also helped to unpack challenges faced by innovators. Key challenges presented by stakeholders during the expo included; heavy taxes, competition from imported products such as plastic bottles and buveera that are environmentally damaging, lack of support and low appreciation of local products.

ATC technologies were promoted in the 4 districts of Mukono, Wakiso, Kayunga and Kampala. Technologies promoted included; NPK rich organic soil conditioner, bio-enzymes for faecal sludge

management and pests' control, low-cost rainwater harvesting technologies, briquettes and assorted products from plastic waste. The Centre also introduced repurposing of Kaveera in 03 primary schools that is; Nakifuma Church of Uganda, Nassejobe UMEA, and Kyabakadde Roman Catholic all in Mukono district.

Develop a clear research agenda for this program in partnership with relevant stakeholders

NEMA signed a Memorandum of Understanding (MoU) with research institutions: Makerere University, Busitema University, and the International University of East Africa. These are to help further research that improves environment management. NEMA also developed a research agenda which will guide all future research in ENR management and related areas.

Undertake relevant applied research aligned to development needs and existing gaps

No implementation in FY 2022/23.

Promote forest cluster-based wood processing industries

Standards for softwood wood products were endorsed in late 2020, and processes to operationalize them started during FY 2022/23. These standards will improve the quality of wood products from all wood processing industries.

Some clusters of wood processors have been supported by the supply of efficient wood processing equipment in form of sawmills with support from partners, including the World Wildlife Foundation in Rwenzori areas.

Through the IFPA-CD Project, the review of the curriculum for the Nyabyeya Forestry College was advanced. This review process will culminate in the establishment of a Center of Excellence for wood processing with the installation of state-of-the-art sawmill equipment at the college during the FY 2023/24.

Support local community-based eco-tourism activities for areas that are rich in biodiversity or have attractive cultural heritage sites

132 ha of CFRs were managed under 7 ecotourism licensees in different forest management Ranges: 14 ha in the Budongo System range, 47 ha Lakeshore range, 21 ha Kyoga range. 1 ha in Muzizi River, 40 ha in Sango Bay, 9 ha in Kalinzu CFR in South West Range, 10 ha in Arua CFR in the West Nile Range. 13 ecotourism sites were managed 4 under NFA in Budongo, Kalinzu, Mpanga and Mabira, and 7-under private licensees. 3,369 eco-tourists (1,853 males and 1,516 females) visited ecotourism sites in Nile Bank, Kalagala Falls, Mabira, Mpanga, Kalinzu, Budongo and Lutobooka Kalangala island. NFA licensed the development of 7 of the 30 ecotourism concessions in partnership with the private sector.

Promote payment for ecosystem services, biodiversity offsets and benefit sharing arising from use of biological resources

No implementation in FY 2022/23.

Procure equipment for monitoring set standards on air, noise, water resources, and soil pollution

4 Environmental monitoring and enforcement of Motor vehicles procured. Assorted Reagents for the proper working of the NEMA laboratory have been procured; these have also been utilized for producing hand sanitizer for the prevention of COVID-19.

Mass of human resources to undertake enforcement of set standards and regulations

46 NEMA and Lead Agency Officers have been trained on audit, inspection, and compliance protocols, including Environmental and Social Impact Assessment.

The institutional capacity of the relevant institutions to manage and regulate environmental aspects, including oil and gas activities, enhanced

45 NEMA staff and eleven 11 Local Government staff were trained in environment management skills within oil and gas industry to provide the necessary skills for the management of oil and gas.

Capacity was built for 20 newly recruited wetland system supervisors and assistant supervisors in the general wetlands management framework. However, other key skills in the performance of their duties will be rolled out in the next financial year.

In addition to the training of the system supervisors and assistant supervisors, departmental technical staff were equipped with planning and budgeting skills in a retreat in Mbarara city. Another training in technical report writing was undertaken for technical staff aimed at enhanced and harmonized data collection, storage, and presentation for proper integration into the decision-making system.

Undertake sensitization campaigns on the permitted levels of pollution and penalties for exceeding thresholds thereof

No implementation in FY 2022/23.

Compliance of National Programmes and projects to environmental laws and standards (Oil, Gas, mining) strengthened

- The Air Quality Regulations finalized and submitted to the Minister for consideration
- The first phase of the automation of the environment management service delivery system has commenced through the procurement of an electronic system for practitioner certification and ESIA.
- NEMA also undertook quarterly joint environmental inspections and monitoring done in conjunction with PAU, UWA, Buliisa, and Kikuube Districts.

Build partnerships with stakeholders such as KCCA, Uganda Police, Urban Authorities, and non-state actors to enhance compliance with water use and pollution regulations and permit conditions

NEMA conducted 2 partnership meetings organized at Lira and Muni Universities to establish and strengthen collaborations on education for sustainable development (ESD) in tertiary institutions.

NEMA carried out capacity-building meetings on urban greening initiatives organized for City Environment Officers and Physical Planners focusing on enhanced decentralized environment management functions of the local governments and promotion of ecological sustainability in urban areas (Arua, Gulu, Lira, Soroti, Mbale, Jinja, Kampala, Masaka, Mbarara, Hoima, and Fort Portal).

Capacity of district and urban environment and natural resource committees in environmental management enhanced

53 District Local Governments were supervised and mentored on their roles in decentralized environment management

Develop and implement a framework that reduces adverse per capita environmental impact of cities (air quality and waste management practices)

- NEMA has finalized the Air Quality Regulations and submitted them to the Minister as a legal framework for reducing the adverse per capita environmental impact of cities.
- NEMA has also engaged cities and urban local governments on effective enforcement mechanisms.
- Technical Assistance was undertaken to CDM (Clean Development Mechanisms) sites in Cities and Municipalities on effective utilization of the already procured equipment. No new equipment was procured.
- Greening initiatives like tree planting were introduced to 2 schools (Kasyebai Primary in Butebo District and Akadot Primary in Kumi District).

Undertake applied innovation on sustainable consumption and production to ensure resource use efficiency to reduce domestic

ATC implemented a comprehensive solid waste management research project as part of the campaign to safeguard water sources, save and protect the environment. Under this project, all bio-degradable and non-biodegradable solid waste is innovatively recycled/repurposed. The Centre produced and tested 200 school bags, 300 pencil cases and makeup organizers, 27 raincoats, 62 mats and other school accessories from used buveera (polythene bags); 2093 pavers, 906 construction bricks, 1604 tiles (30 x

30 dimension), petrol and gas from plastic bottles and containers. Laboratory tests indicated that the fuel produced had properties of petrol with a density range of 0.7508g/cm³ to 0.7791g/cm³ and viscosity at 40⁰c ranging between 0.6mm² to 1.1mm². This fuel has the potential to offset the fuel burden in the country. However, at our level of production, the fuel remained with some sediments, calling for advancing fuel purification technology before any community promotion.

From bio-degradable waste, the Centre produced 2,059kgs of Nitrogen Pottasium and Calcium rich soil conditioner; 783kgs using Black Soldier Fly Larvae (BSFL) and 1,276kgs using earthworms, 212kgs of animal feeds from BSFL and 2,076 litres of bio-enzyme from organic waste. These two products are purposed to boost agriculture by improving soil quality, enhance photosynthesis, increase flowering/fruiting and controlling pests. The products can favorably outcompete inorganic products. In addition, the bio-enzyme is used to improve hygiene and control sludge build up in latrines.

Undertake economic valuation of selected ecosystems and their services

NEMA is collaborating with other government institutions, the Ministry of Finance, the Uganda Bureau of Statistics, and other development partners such as NORAD World Bank to develop Natural Capital Accounts to quantify the natural capital in Uganda. These processes lead to the valuation of the Natural Capita.

Build sectoral, institutional, and local government capacity in natural capital accounting

Natural Capital Accounting (NCA) training and sensitization engagements were taken together with the Ministry of Finance, UBOS, NPA, and other MDAs on the role of NCA ineffective environment management in Uganda. Natural Capital Accounting Training of DLGs was not undertaken FY2022/23.

Establish eco-friendly municipal and city waste collection and sorting facilities, and systems for recycling and reuse as a remedy for immense methane emissions from open landfills

Technical Assistance was undertaken to CDM (Clean Development Mechanisms) sites in Cities and Municipalities on effective utilization of the already procured equipment. No new equipment was procured

Strengthen whole of government capacity to rapidly respond to emergencies and disasters

114 DLG Resource Centres (out of the 100 planned) with environmental information materials. In addition, NEMA purchase 25 e-books to improve on the stock of books in its library in Kampala.

Develop a national Disaster Risk Management Plan

The Authority established a network 32 community geo- observers in Mbale, Manafwa, Sironko, Bulambuli, Namisindwa, Bududa, Kween, and Kapchrowa districts, with 4 observers assigned to each district to enhance Disaster Risk Reduction and Management (DRRM) in the Elgon region. Equally, NEMA carried out field excursions in Elgon and Rwenzori sub regions where 4 landslides scars in Bulambuli; 6 in Bududa and Namisindwa; 3 landslides scars in Kasese; and 6 in Bundibugyo were identified to gather data for the establishment of a database for DRRM in the two regions.

Undertake a disaster risk screening of the NDP III and generate information to inform implementation planning

No implementation in FY 2022/23.

Prepare an Annual State of Disaster Report

The National State of Environment Report for (NSOER) 2022 was produced and Launched on the World Environment Day 2022 celebrations at Kololo. The NSOER was prepared under the theme, "***Harnessing Environment for Sustainable Cities & Resilient Prosperous Communities.***"

Develop a clear research agenda for this program in partnership with relevant stakeholders

A Research Strategy was developed, and the Research Agenda will be developed in forthcoming FYs.

Undertake relevant applied research aligned to development needs and existing gaps

Data collection and analysis for the production of the National State of Environment (NSOER) for 2022. Establishment of the first phase of the electronic ESIA Management System for more efficient and effective service delivery

Promote payment for ecosystem services, biodiversity offsets, and benefit sharing arising from the use of biological resources

NEMA is developing Economic Instruments with partner development Oil For Development (OFD) under the Strengthening Management of Oil Programme (SMOG-P), this has helped the current Charge system and made recommendations for new Economic instruments as a quick win. NEMA organized the commemoration of the International Biodiversity Day (IBD). NEMA participated in other environment conservation days such as Wetlands Day, forests day, Water Day (3).

The DESSS supported Total Energies in the development of the Net Gain Programme which is aimed at offsetting the cumulative impacts of the oil and gas operations from the Tilenga development area on biodiversity.

The Minister led a delegation to the 8th UN Conference of Parties on Convention of Biological Diversity which promotes biodiversity conservation.

There was no payment for ecosystem services site was implemented in the reporting period. This underpins the need to develop guidelines for benefit sharing arising from the use of biological resources.

Implementation of Reforms

Transfer the command of the Environment Police Force from the Ministry of Internal Affairs to NEMA and NFA

The NEMA started the recruitment of the Environment Protection Force (EPF) as per the National Environment Act, no.5 of 2019. Up to 140 EPF staff are earmarked for recruitment, of which 23 staff have been recruited in FY2022/23.

Establish Environmental Courts within the Judicial System

No implementation in FY 2022/23.

Establish (put in place and equip) District Focal points for the Uganda National Meteorological Authority (detach from District Natural resources/Environmental Officers)

No implementation in FY 2022/23.

4.4 Challenges, Emerging Issues and Recommendations

4.4.1 Challenges

- (i) **External Influence** in the operations of NFA by local leaders and representatives at various levels hindering management of CFRs, including lawful eviction of encroachers, survey and demarcation of forest boundaries, and establishment of eco-tourism.
- (ii) **Issuance of illegal Land titles in CFRs** by Uganda Land Commission and District Land Boards creating a lot of litigation and related costs to the Government.
- (iii) The ongoing restructuring of MDAs has caused confusion in the forest sector, and the job retention uncertainties has led to limited commitment and underperformance across the government.
- (iv) Lack of a clear national communication strategy for ENR.
- (v) Inadequate capacity of MDAs to implement payment for ecosystem services and biodiversity offsets.
- (vi) Lack of incentives for the private sector to engage in conservation of natural forests, wetlands and other environmental resources.
- (vii) Inadequate funds to complete the demarcation and restoration of critical rivers, lakes, wetlands, forests and hilly and mountainous areas.

(viii) Lack of cheap alternatives for fuel wood and charcoal which contributes to the high rate of deforestation

(ix) Peatlands (wetlands) and Climate Change

Scientific studies have unearthed a vital wetland resource known as peatlands, which is 'in situ dead biomass (mostly below-ground vegetation) under permanent water saturation whose production is larger than decay with high content of un-decomposed organic matter.

Peatlands with organic soils cover the 6,940km² surface area of Uganda but are significant in carbon emissions reduction. Peatland emissions in Uganda are estimated at 1.2 Mt CO₂eq in 2015. They would reach 7.1 Mt CO₂eq in 2030, i.e. equivalent to 6% of the total emissions from the AFOLU (Agroforestry and other land uses) sector in 2030. Rewetting half of the peatlands by 2025 would lead to an annual avoidance of 3.55 (Mt CO₂ eq.) in 2030, i.e. equivalent to 4.3% of the total emissions reduction of the AFOLU sector. National rewetting/restoration of all drained peatlands by 2025 would lead to annual avoidance of 7.1 (Mt CO₂ eq.) in 2030, i.e. equivalent to 8.6% of the total emissions reduction of the AFOLU sector."

Uganda presents an ambitious economy-wide mitigation target in 2030 of a 24.7% reduction, BUT without rewetting peatlands, emissions will be above under the Nationally Determined Contributions- Paris Agreement.

Therefore, restoring more than 573 sq. km (1.7%) of wetlands with continued protection of the existing ones will leave us with 16.1% of our mitigation target for 2030.

4.4.2 Recommendation

- (i) **Strengthening forest law enforcement and governance** through the establishment of an armed wing of Forest Rangers and professional investigators and prosecutors of environmental and forestry crimes. This should include strengthening stakeholder partnerships for forest conservation and livelihood improvement (e.g. Collaborative Forest Management, Corporate tree planting through MoUs, game ranching, among others).
- (ii) **Provide incentives to private natural forest owners and commercial tree investors.** Providing incentives to private natural forest owners to keep the land under forest and private commercial plantation/tree investors to encourage large-scale tree planting. There is a need to improve supervision at all levels of management consistently; regular field visits by Range/Plantation staff and Senior Management Team.
- (iii) **Support completion of re-opening boundaries and re-demarcation of all critical ecosystems** in Uganda (forests, rivers banks, lake shores, wetlands, hilly and mountainous areas) to ensure the security of tenure of these critical resources.
- (iv) Develop guidelines to guide benefit sharing from biological resources.
- (v) Strengthen capacity of MDAs to implement payment for ecosystem services and biodiversity offsets.
- (vi) Strengthen MDAs to undertake research and innovation to promote environment and natural resources management.
- (vii) Fast tracking of restructuring proposals to enhance confidence among staff.

CHAPTER 5

LAND MANAGEMENT

5.1 Introduction

The Land Management Sub-programme is responsible for achieving the programme objectives of strengthening land use and management. It is responsible for ensuring rational and sustainable use, and effective management of land in Uganda. It aims at attaining land tenure security, especially for customary land (which remains largely unsurveyed and unregistered), and lawful and bona fide occupants on registered land. It is responsible for:

- i. Supervision and monitoring of Land Management Institutions.
- ii. Implementation of the Land Information System (LIS) and support its integration with other Government systems.
- iii. Providing technical support, advice, and guidance to the Lands, Housing, and Urban Development sector and other Ministries, Departments, and Agencies.
- iv. Sensitizing the public on land matters.
- v. Conducting Land dispute resolution.
- vi. Establishing geodetic controls and ensuring quality assurance for cadastral jobs and surveys in the country.
- vii. Surveying of Government land and international boundaries.
- viii. Issuance of titles and general conveyance.
- ix. Conducting timely and reliable property valuations for the Government and the public.
- x. Coordinating Land Sector reforms, including planning and implementation processes.

It has two outcome indicators (i) Percentage of titled land increased from 21% to 40%, and (ii) Percentage Change in Land Conflicts.

5.2 Performance of Indicators

5.2.1 Titled land as a percentage of total land owned

The total land titled/registered increased from 22.4% in 2021/22 to 30% in FY 2022/23.

5.2.2 Reduction in Land Conflicts

After incorporating data from Judiciary, Police, and the RELAPU program, the total number of land conflicts including backlog was 52,068, out of which 30,242 were mediated/resolved. This reduces the unresolved land conflicts from 45.84% in FY 2021/22 to 41.9% in FY 2022/23.

5.2.3 Percentage Change in Land Conflicts

The percentage change in land conflicts increased from 2% in FY 2021/22 to 10% in FY 2022/23. The total number of land conflicts including backlog was 52,068, out of which 30,242 were mediated/resolved. This reduces the unresolved land conflicts from 45.84% in FY 2021/22 to 41.9% in FY 2022/23.

5.3 Performance of Interventions

5.3.1 Complete the roll-out and integration of the Land Management Information System with other systems

- Established a permanent Data Processing Centre integrated with the Land Information System in Entebbe.
- Trained 204 Land Information System users on the system
- Procured the consultant that will upgrade and maintain the SLAAC Data Capturing and Processing Software.
- Inception Report for review of the SLAAC manuals prepared.

- Operations and maintenance provided for the 22 Ministry Zonal Offices (MZOs) and the Land Information System.
- Contract for National Land Information System enhancements (NaLISEP) submitted to IDA for a No Objection.
- 45 topographic maps were updated and disseminated i.e. Kole (9), Luuka (9) Kiryandongo (9), Napak(9), and Otuke Districts (9).
- Arua and Mbale City maps revised.
- Cadastral data analysis was carried out for two blocks in Wakiso and Luwero MZOs.
- 15 rectifications of surveys and mapping data made across 22 MZOS

5.3.2 Fast-track the formulation, review, harmonization, and implementation of land laws, policies, regulations, standards, and guidelines

- Procured the Consultant to undertake an impact assessment of the National Land Policy and held three meetings to discuss the inception report on the review of the National Land Policy.
- Held 20 Regulatory Impact Assessment meetings on proposed Land Act amendments.
- Principles for the Land Acquisition, Resettlement, and Rehabilitation Bill were submitted to the Cabinet.
- National valuation standards and guidelines were developed.
- The regulatory impact assessment for the Valuation Bill and principles of the Valuation Bill were approved by the Cabinet in November 2022.

5.3.3 Undertake a comprehensive inventory of government land

- 798 lease transactions were completed across the country, out of which 52% (415) were for males, 16% (128) for females, and 32% (255) for Companies.
- Collected UGX 7.23 billion shillings revenue as Non-Tax Revenue in Premium and Ground rent.
- Increased the total of surveyed and titled Government land to 26.28%.
- 39 certificates of title processed for Ministries, Departments and Agencies.
- 30 surveys conducted for processing of certificates of title for land under Ministries Departments and Agencies.

5.3.4 Capitalize the Land Fund to ensure access to land by lawful and bonafide occupants

- 3,224.711 hectares of Land acquired through compensation to absentee Landlords for securing Lawful and bonafide occupants in Buganda Bunyoro Ankole and Toro.
- 6,430 subdivision surveys conducted, certificate of titles processed for lawful and bonafide occupants on Buwekula Block 249, plot 24, Bugangaizi Block 90, plot 9 Block 2, Plot 1, and Gomba Block 209.
- 20 field sensitizations/consultation meetings conducted in Ankole, Buganda, Bunyoro, and Toro Sub-regions.
- 1000 copies of Land Fund Regulations and Guidelines disseminated to lawful and bonafide occupants in Bunyoro Ankole Buganda and Toro.
- 10861 certificates of titles processed for lawful and bonafide occupants.



Photo 5-1: Issuance of freehold land titles to beneficiaries through the Land fund

5.3.5 Strengthen the capacity of land management institutions in executing their mandate geared towards securing land rights

- Terms of 22 District Land Boards (DLBs) i.e Pallisa, Dokolo, Namisindwa, Busia, Lwengo, Ntungamo, Sheema, Ibanda, Lamwo, Omoro, Kibaale, Nakaseke, Kapchorwa, Masaka, Rubirizi, Kaliro, Serere, Kyankwanzi, Lyantonde, Amuru, Mukono and Kakumiiro reviewed and approved.
- 23 District Land Offices and 23 District Land Boards of Lwengo, Lyantonde, Amuru, Kotido, Rakai, Kyotera, Masaka, Gulu, Oyam, Mbarara, Rukungiri, Jinja, Buikwe, Mukono, Kakumiiro, Kibaale, Kyegegwa, Rakai, Kyotera, Bukomansimbi, Kyenjojo, Fortportal and Hoima were supervised, monitored and technically supported.
- 18 District Land Boards, 18 District Land Offices, and 77 Area Land Committees of Kabale, Kazo, Mayuge, Kaberamaido, Gulu, Amuru, Oyam, Maracha, Kyankwanzi, Kalaki, Soroti, Katakwi, Lira, Amolator, Dokolo, Buvuma, Lwengo and Apac Districts trained in land management.
- 40 Desktop computers procured for 40 DLB as part of the phased approach of retooling land management institutions in all Districts across the Country.



Photo 5-2: Supervision of Land Management institutions

5.3.6 Promote land consolidation, titling, and banking

- Reconnaissance and assessment undertaken in 64 districts and the report was shared with the World Bank. Concept Note and Budget for undertaking CLA activities developed and submitted to the Bank for a No Objection.
- 9,531 Titles were produced through the SLAAC program, out of which 4,600 were issued.
- 47,349 titles were issued to strengthen land tenure security in the country.
- 26 land Blue pages validated and converted into land White pages.



Photo 5-3: Title issuance to beneficiaries through the SLAAC program

5.3.7 Promote tenure security, including women's access to land

- Systematic Land Adjudication and Certification (SLAAC) rolled out and implemented in Parishes of 29 Districts i.e Isingiro, Kikuube, Kamuli, Namutumba, Apac, Maracha, Ntungamo, Sheema, Soroti, Serere, Bukedea, Luuka, Mayuge, Jinja, Mbarara, Rwampara, Kiruhura, Adjumani, Oyam, Ibanda, Kamwenge, Kiryandongo, Kyegegwa, Koboko, Lamwo, Madi-Okollo, Obongi, Terego and Yumbe.
- Increased the percentage of land titles owned by women from 26% in FY 2021/22 to 27.02% in FY 2022/23.
- National Gender Strategy was disseminated in 7 districts of Mbale, Jinja , Kabale, Oyam, Maracha, Apac and Terego.
- Fit for purpose implemented in the 33 districts of Karenga, Kabale, Adjumani, Kisoro, Butaleja, Mbale, Apac, Oyam, Maracha, Nebbi, Amudat, Napak, Kotido, Moroto, Kaabong, Mityana, Kasanda, Mubende, Gomba, Terego, Dokolo, Katakwi, Kasese, Nwoya, Pader, Mbarara, Ibanda, Kiruhura, Rwampara, Soroti, Agago, Amolator and Namutumba
- 2 open days held i.e Mukono and Luweero
- 27 Public sensitizations/barazas were organized to sensitize the public on the MLHUD services, profile complaints, responses and grievances i.e in Luweero (1), Koboko (1), Maracha (1), Kagadi (1), Mubende (1), Mityana (1), Gomba (1), Kassanda (1), Terego (1), Kabale (1), Kisoro (1), Oyam (1), Kibaale (1), Butaleja (1), Kaabong (3), Bunyangabo (1), Kikuube (2), Mbale (1), Kyankwanzi (2) Kayunga (1), Wakiso (2), and Mityana (1).
- Six Urban land awareness day were held in Lira City, Kitgum Municipal Council (MC), Busia MC, Kamuli MC, Apac MC and Jinja City.
- Three land awareness week were held in Kigezi region, Mukono, and Busia to sensitize the public on land matters.



Photo 5-4: Community sensitisation

5.3.8 Establish the National Spatial Data Infrastructure (NSDI) to enhance data integration for planning and development

- Four Geodetic Control Points were established in the Lira district.
- Maintenance was undertaken for 206 passive stations and 5 Continuously Operating Reference Stations in Soroti, Jinja, and Mbale Districts.
- Contract for enhancing and modernizing the Uganda Geodetic Reference Framework (UGRF) was submitted to the World Bank for a No Objection.
- 40 km of National (inter-district) boundaries were affirmed to reduce border disputes i.e 23km along Moroto-Kotido districts and 12km along Rupa and Kakitekire sub-counties. 5km inter-district boundaries of Wakiso, and Kampala (Luzira, Mutungo, and Namuwongo) were affirmed.
- Interborder meeting held between Kenya and Uganda; and Meeting to discuss the Ug- SSD border was held in Moyo.

5.3.9 Develop and implement a Land Valuation Management Information System (LAVMIS)

- The National Valuation Standards and Guidelines were developed.
- Draft Valuation Professionalization Framework was developed.
- The Technical Requirements and/or Terms of Reference for the engagement of a consultant to develop the Land Valuation Management Information System (LaVMIS) were prepared. Bid Evaluation Report submitted to Contracts Committee??

- An MoU was signed between MLHUD and UBOS for the collection of data on property yields and indices. Arrangements were made for data collection in the FY 2023/24.
- Property yields and indices were developed for the cities of Mbarara, Gulu, Jinja, and Entebbe Municipality.
- Compensation rates for eight districts i.e Kikuube, Mitooma, Mbarara, Kyenjojo, Hoima, Mukono, Mityana, and Mbale reviewed and approved.
- Meta version of the Compensation rates database (Web and Mobile App) was prepared and tested.
- Data for Land Valuation databank collected in the Western Region.
- 68,875 property valuations were carried out and supervised. Market Valuation: 278 Properties; Rental Valuation: 203 Premises; Custodian Board Survey: 35 Cases; Boarding off: 30 Cases; Asset valuation: 17 Cases; Terms: 202 Cases; Probate: 13 Cases; Rating: 4 Cases; Capital Gains assessment: 1 Case; General compensation: 74 Cases; Insurance valuation: 1 Case; and Stamp duty: 67,811 cases.

5.3.10 Promote integrated land use planning

- ❖ Prepared 93 Draft Parish Physical Development Plans.
- ❖ Physical Planning Committees of 7 districts i.e. Bulisa, Hoima, Pakwach, Butaleja, Kikuube, Kiryandongo and Masindi were trained in physical planning aspects and best practices.
- ❖ Physical Planning/land use layers of Urban Growth Centres for Kigorobya Town Council and Butema Growth Centre were integrated into NLIS.



Photo 5-5: Physical planning team displaying some of the physical development plans to Community members.

CHAPTER 6

DISASTER PREPAREDNESS AND RISK MANAGEMENT

6.1 Introduction

The Management of disasters is a multi-sectoral and multidisciplinary process. It involves all government ministries collaborating with humanitarian and development partners, the private sector, local governments, and the community. The Office of the Prime Minister is the lead agency for managing disasters and refugees.

The Disaster Preparedness and Risk Management Sub-programme is responsible for achieving the programme objectives of reducing human and economic loss from natural hazards and disasters. The Sub-programme outcome indicator is to reduce the number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population from 150 to 50.

Sub-programme Interventions

- (i) Strengthen the policy, legal, and institutional framework for effective disaster risk governance, management, and response.
- (ii) Institutionalize disaster risk planning in Programmes.
 - a. Develop a National Disaster Risk Management Plan.
 - b. Undertake a disaster risk screening of the NDPIII and generate information to inform implementation planning.
 - c. Finalize and disseminate the National Disaster Risk Atlas.
 - d. Strengthen the Disaster Risk Information Management Systems.
 - e. Promote re-enforcement and retrofitting of structures and buildings for resilience to disasters.
- (iii) Enhance capacities for storage, management, and distribution of relief commodities.
 - a. Strengthen the national store and relief food chain management system
 - b. Ensure timely access to relief food and non-food commodities by disaster victims.
- (iv) Enhance the capacity to resettle persons at risk of disasters.
- (v) Enhance access and uptake of meteorological information.
- (vi) Install new and adequately equip and maintain existing automatic weather stations to ensure maximum functionality.

6.2 Disaster Management Outcome Indicators

6.2.1 Human mortality and missing persons directly attributed to water and environment-related disasters per 100,000 population

During the FY 2021/22 mortality (death) related to natural disasters was 1,200. This translates to about 3 persons per 100,000 population. This mortality rate was higher than that in the FY 2020/21 where 26 persons died. This translated into mortality rate of 0.06 persons per 100,000 population. The major causes of natural disasters were floods, landslides, and lightening. The disaster-prone areas included Mt. Elgon (Bududa) and Mt. Rwenzori (Kasese) areas. The data for FY 2022/23 was not available at the time of compiling this report.

6.2.2 Economic Loss (USD) incurred per disaster as a % of GDP

Data on economic loss from disasters for the FY 2021/22 was not available at the time of compiling this report. In the FY 2020/21, the economic loss from disasters was estimated at UGX. 563 billion. This translated into 0.4% of GDP lost due to natural disasters. The data for FY 2022/23 was not available at the time of compiling this report.

6.3 Disaster Management Interventions

6.3.1 Strengthen the policy, legal and institutional framework for effective disaster risk governance, management, and response

Preparation of the National Disaster Preparedness and Management

Preparation of the National Disaster Preparedness and Management (DPM) Bill continued. Reviewed the Cabinet Memorandum on Principles for the DPM Bill based on the feedback from the Cabinet Secretariat. The Cabinet Memorandum was revised to address the comments raised by the Cabinet Secretariat. The revised Cabinet Memorandum was due for submission to Cabinet.

Government capacity for rapid emergency and disaster response enhanced

Conducted preparedness assessments in Kasese and Ntoroko districts that facilitated disaster response. Needs assessments of disasters were conducted in 39 local governments: Mbale District, Mbale City, Butaleja, Bundibugyo, Kasese, Buyende, Kibuku, Ibanda, Bushenyi, Rakai, Kalungu, Sembabule, Bukomasimbi, Buyende, Namayingo, Isingiro, Kiruhura, Mbarara Sheema, Kabarole, Kitagwenda, Kamwenge, Sembabule, Kiruhura, Bukedea, Kumi, Tororo Kasese, Ntoroko, Kabarole, Kamwenge, Kitagwenda, Kiruhura, Sembabule, Kisoro, Rukungiri, Rubanda, Rukiga and Bulambuli; food security and Nutrition analysis for Teso and refugee host communities and Rainfall performance assessment for South Western Uganda and Karamoja in the districts of Rukungiri, Kanungu, Kisoro, Kabale and Rukiga Moroto, Kotido, Nakapiripirit, Napak, Kaabong, Nabilatuk, Abim Karenga, Amudat districts which informed the disaster response and preparedness strategies. Multi-hazard risk assessments were carried out in West Nile.

6.3.2 Institutionalize disaster risk planning in Programmes

(a) Develop a National Disaster Risk Management Plan

Developed the National DRM Plan and held a Donor Conference to raise support for the DRM plan, which will guide disaster response and preparedness interventions. Printed fifty (50) copies of the DRM Plan for dissemination.

Developed Concept Note for checklist to mainstream DRM/DRR into development plans and budgets at national and local levels. Participated in RIA for ONE Health.

Trained 32 District Disaster Management Committees (DDMCs) in Butebo, Kibuku, Bugweri, Kitagwenda, Buliisa, Kole, Buyende, Amuru, Adjumani, Lamwo, Nakasongola, Obongi, Butaleja, etc. districts that enhanced the capacity across DLGs on resilience and awareness against disasters.

Produced six draft District Contingency Plans (DCPs) for Kagadi, Nakasongola, Kayunga, Kaberamaido, Kakumiro, and Kalungu District Local Government (DLGs) and validated them along with those of Serere and Amolator districts. These will guide the disaster response interventions in the districts. Conducted one national dialogue for contingency planning and funding and validated District Contingency Plans for three districts of Kagadi, Serere, and Amolator.

Trained 18 trainers of trainees from the districts of Bududa, Butaleja, Bukedea, Kwen, Moroto, and Namayingo to enhance capacity in disaster response. Trained all Subcounty Disaster Management Committees (SDMC) of three districts of Kaabong, Kotido, and Moroto on developing disaster management plans to facilitate effective disaster response. Adjumani and Amuru conducted DECOG training. Conducted benchmarking visit to the Mombasa, Kenya oil spill mutual aid group.

(b) Undertake a disaster risk screening of the NDPIII and generate information to inform implementation planning

No action was implemented in FY 2022/23.

(c) Finalize and disseminate the National Disaster Risk Atlas

The National Risk Vulnerability Atlas was finalized in FY 2020/21. During the FY 2022/23, the Atlas was disseminated in Luuka, Bugiri, and Bugweri, which will inform the disaster response and preparedness strategies.

(d) Strengthen the Disaster Risk Information Management Systems

Compiled 12 monthly disaster situation reports and UNIEWS bulletin in Rukiga, Kisoro, and Rubanda districts that informed the disaster response interventions in these areas. Disseminated Early warning Information in seven districts of Busia, Tororo, Butaleja, Budaka, Butebo, Kibuuku, and Pallisa.

Produced and disseminated nine monthly UNIEWS bulletins compiled, for July 2022 – March 2023, that facilitated disaster preparedness activities. Carried out Scoping mission and development of the early warning systems Karamoja supported PROACT Project. Formulated triggers for the drought and Floods early warning system. Held meetings with UNMA and MOWE on flood early warning systems.

Enhanced rapid emergency and disaster response through training of the 11 DECOs on using drones for Disaster Risk Mapping and Assessment. Department staff trained in using and interpreting Geographical Information Systems (GIS) in disaster preparedness and management. Participated in Kenya - Uganda Binational Simulation Exercise on protecting people Displaced across Borders in Disaster contexts.

Held three Validation and co-production meetings in three districts of Pallisa, Budaka, and Butibo. Four validation and co-production meetings were held on the National Climate Outlook Forum (NCOF) co-production of SOND 22 with other stakeholders from 1-2 September 2022 in Entebbe, the Greater Horn of Africa Climate Outlook Forum (GHACOF) 62 and Early Alerts & sensitization on communities on the looming heavy rains in West Nile Sub-region. Developed Drought Threshold and triggers for Karamoja sub-region.

Annual State of Disaster Report: Preparation of the Annual State of Disaster Report for FY 2021/2022 was ongoing. The Annual State of Disaster Report, data analysis workshop, was held to reflect on the state of a disaster situation in the country.

6.3.3 Enhance access and uptake of meteorological information

Four seasonal climate outlooks (June-August), (September-December), (December-February), and March-May were issued for central, eastern, northern, and western regions with advisories to particular climatological zones. Conducted one National Climate outlook to downscale, interpret, and develop advisories for the SOND seasonal forecast. Printed the June-August seasonal forecast in the new vision to disseminate the forecast.

Utilized the website, email, and social media and acquired the USSD code to ease access to climate information for the general public

Public awareness on weather and climate issues was raised through 14 radio talk shows on radio one (2), KFM, (1)CBS (3), Messiah (2), Voice of Toro (2), Grace radio (Mbarara) (1), Radio Kabale (1) in Bushenyi (1) on Mbabule FM (Sembabule)(1) and 7 TV talk-shows on were conducted on NTV(3), UBC (1), BBS (1), NBS (1) and Bukedde (1).

Conducted radio talk shows in Karamoja (3), Bunyoro (1), Toro (1), Sembabule (1), Gulu (1), Kabale (1), Mbarara (1), Kabarole (1), Hoima (1), Gulu (1), Kamwenge (1), Arua(1), Zombo (1), Koboko (1), Adjumani(1), and Television shows on NBS, Family TV, NTV and UBC TV to disseminate the issued seasonal forecast and generate feedback on utilization of meteorological forecasts.

Engaged District Local Governments in creating awareness of the importance of weather and climate information in planning and decision-making in the Central region (Wakiso, Kayunga, Mukono, Mpigi,

Luweero, Nakaseke, Nakasongora), Western region (Bushenyi, Mbarara, Ntungamo, Kabale) and Eastern region (Kibuku, Pallisa, Mbale and Kumi). Disseminated the seasonal forecast through telegram and USSD code.

Conducted 1 seasonal Rainfall Performance evaluation on the communities in the Western Region (Mbarara, Bushenyi, Shema, Rubirizi, Kabale), Central Region (Kampala, Wakiso, Kayunga, Mukono, Sembabule, Masaka, Rakai, and Mityana), and Eastern Region (Kamuli, Pallisa and Kumi).

The key findings are:

- Weather and climate information is received in the districts but mainly through the radios and emails only. However, this information does not reach the grassroots users in time due to the absence of funds at the districts to disseminate information further.
- There has been an improvement in the accuracy of the seasonal weather forecast so far, apart from the daily weather forecasts, which are not yet accurate.
- The public perception about the use of weather and climate information is still low, as few people utilize it while others prefer using indigenous knowledge to the issued forecast.
- The common hazards in the areas visited include floods, prolonged dry spells, and hailstorms
- UNMA needs to organize training for the district officials in the interpretation of the weather forecasts to enable them to build their capacity and give the right information to the farmers.

Established weather and climate information dissemination champions and coordinators for the Eastern Region (Jinja, Mabale, Manafwa, Bududa, and Butaleja districts).

Daily forecasts were disseminated to 3 media houses of UBC TV, Star TV, and Bukedde 1 T.V. after the newscasts and provided 184 Lake Victoria marine forecasts for the four regions on Lake Victoria.

(e) Promote re-enforcement and retrofitting of structures and buildings for resilience to disasters

No action was implemented in FY 2022/23.

6.3.4 Enhance capacities for storage, management, and distribution of relief commodities

No action was implemented in FY 2022/23.

(a) Strengthen the national store and relief food chain management system

No action was implemented in FY 2022/23.

(b) Ensure timely access to relief food and non-food commodities by disaster victims.

Conducted Relief support distribution assessment in six districts of Zombo, Pakwach, Masindi, Amolatar, Pader, and Lamwo that facilitated relief distribution decisions. Conducted Relief food monitoring in Napak, Moroto, Kotido, Kasese, Ntoroko, Kitgum, Katakwi, and Nabilatuk districts that identified challenges and made recommendations for improvement in relief distribution. MOU, Addendum signed between URCS and OPM with funds transferred to strengthen community disaster risk management

Supported approximately 214,145 disaster-affected households (an average of 1,070,727 people with relief food and non-food items (NFIs) (74,951 bags of maize flour, 37,875 bags of beans, 16,330 iron sheets, 200 shovels, 195 wheelbarrows, 200 pangas, 200 pairs of shoes, 1,350 tarpaulins and 57 districts with 1,000 kits of assorted items which enhanced the livelihood of the disaster affected persons.

Conducted one community meeting in Bisiriwa sub-county in Bududa on a cash transfer project for high-at-risk households to landslides in the Mt. Elgon sub-region. Iron sheets were delivered to the Nakapiripirit, Alebtong Sheema, Mitooma, Buyende, and Napak districts.

Relief food was delivered to Kasese, Ntoroko, Adjumani, and Namayingo districts. Relief food was delivered to Mukono School of the Blind and Kawempe Home Care, and carried out relief food monitoring in the three districts of Amudat, Nabilatuk, and Nakapiripirit.

Conducted nine disaster/event assessments (e.g., Disaster risk and vulnerability assessments in Bududa, Bundibugyo, Kasese, Mayuge, Butaleja, Kakumiro, Kagadi, and Kibaale districts) that facilitated disaster preparedness and response. Conducted preparatory engagements for the launch of cash transfers in Bududa.

6.3.5 Enhance the capacity for resettlement of persons at risk of disasters

Resettled 374 persons from 46 households living at high risk of landslides in five disaster-prone districts of Bududa, Manafwa, and Sironko. Registered and verified 2050 households in Bududa for a resettlement package of UGX 7,000,000 each with support from Give Directly.

CHAPTER 7

MWE CONTRIBUTION TO OTHER PROGRAMMES

7.1 MWE CONTRIBUTION TO HUMAN CAPITAL DEVELOPMENT

7.1.1 RURAL WATER SUPPLY

7.1.1.1 Introduction

The rural water supply sub-programme contributes to the Human Capital Development (HCD) Programme's objective of improving population health, safety, and management. The programme intervention is to increase access to inclusive, safe water, sanitation, and hygiene (WASH) with an emphasis on increasing coverage of improved toilet facilities and handwashing practices. The outputs are (i) Increased access to inclusive, safe water supply in rural areas; (ii) Improved water quality supplied; and (iii) Support for improved WASH services in institutions. The outcome indicators, according to the PIAP, include (i) Percentage of the rural population within access of an improved water source (1km), (ii) Percentage of villages with access to safe water supply, and (iii) Percentage of functionality rates of rural water systems.

7.1.1.2 Rural Water Outcome Indicators

Table 26 presents the overview of rural water supply outcome indicators. The trends show stagnation and decline in safe water coverage and functionality rate. At the current rate of progress, it is unlikely that the NDP III target of 85% safe water coverage among the rural population will be achieved. This increase was partly attributed to the inclusion of villages served by NWSC outside the boundaries of towns.

Table 26: Trend in progress of outcome indicators (rural)

Indicators	2019/20	2020/21	2021/22	2022/23	PIAP Target
% of safe rural water supply coverage.	68%	68%	67%	67%	85%
% of functionality rates of rural water system.	85%	85%	85%	84%	
% of villages with a safe water source	67.8%	67.9%	67.4% ²	80%	
No. of villages with a safe water source.	38,785	38,809	39,130	58,887 ³	

(i) Percentage of rural population within access of an improved water source (1 km)

The percentage of the rural population using an improved safe water source was 67% based on 81% of the districts which submitted reports. This was the same coverage in FY 2021/22. There was a slight reduction in the number of districts with safe water coverage below the national coverage from 43 districts in FY 2021/22 to 40 in FY 2023. It is estimated that MWE and District Local Governments served a total of 467,578 persons with **new** water supplies in 2022/23. These were fewer than the 633,968 persons served in FY 2021/22.

The stagnation in rural safe water supply is attributed to three major factors: (i) The annual rate of investment in rural water supply infrastructure is lower than the annual rate of population growth; (ii) The majority of the areas with low coverage are water stressed with low water resource potential such the cattle corridor. Supply of safe water to such areas is expensive, requiring heavy capital investment; and (iii) The rate at which the water supply infrastructure is aging is higher than the rate of replacement. Without addressing these factors, rural water coverage will not increase but instead continue to decline,

² The number of villages increased from 57,150 in FY 2020/21 to 58,022 in FY 2021/22.

³ Data from 113 out of 135 District Local Governments showed that there are 71,225 villages.

and the NDP III and SDG 6.1 targets will not be achieved. Table 27 shows districts safe water coverage below the national coverage.

Table 27: Districts with safe water coverage below the national coverage

District	% coverage	District	%coverage	District	%coverage
Terego	66%	Namutumba	59%	Amudat	43%
Bududa	65%	Kasese	58%	Kisoro	41%
Oyam	65%	Kyankwanzi	58%	Lyantonde	40%
Buliisa	64%	Ibanda	57%	Buyende	38%
Kibaale	64%	Nwoya	57%	Wakiso	38%
Namayingo	63%	Kagadi	55%	Sembabule	37%
Bugweri	62%	Mayuge	55%	Kazo	35%
: Buhweju	61%	Kikuube	54%	Mubende	35%
Mbale	61%	Nakapiripirit	53%	Rakai	34%
Butaleja	60%	Nabilatuk	49%	Kakumiro	31%
Kalangala	60%	Isingiro	48%	Buvuma	29%
Kyotera	60%	Kaliro	48%	Kyegegwa. ⁴	29%
Tororo	60%	Yumbe	48%		
Kiruhura	59%	Kasanda	44%		

(ii) Percentage of villages with access to safe water supply

The Government of Uganda passed a strategic policy directive emphasizing the provision of at least one improved safe water source per village. Based on the data obtained from 126 districts, 57,034 villages out of the 71,225 had an improved safe water source. This represents 80% of the villages in the 126 districts had an improved safe water source. This was higher than the 67% of the villages reported in the FY 2021/22. This increase was partly attributed to the inclusion of villages served by NWSC outside the boundaries of towns. Harmonization of data on villages served by rural and urban water supply is ongoing to avoid double reporting.

Data from the 126 Districts that submitted reports indicates that **14,191** villages were unserved with improved safe water sources. The distribution of unserved villages is depicted in Figure 24.

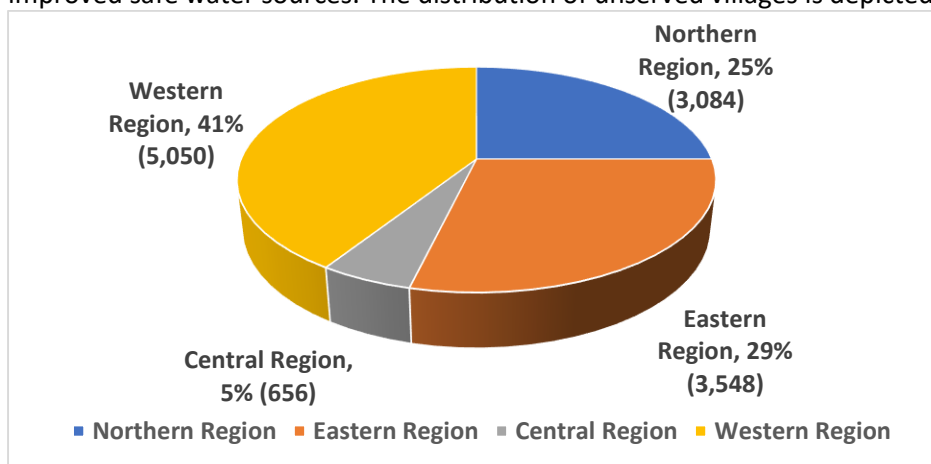


Figure 24: Distribution of villages without an improved safe water source

⁴ This analysis excludes 20 districts that did not submit their forms at the time of compiling this report.

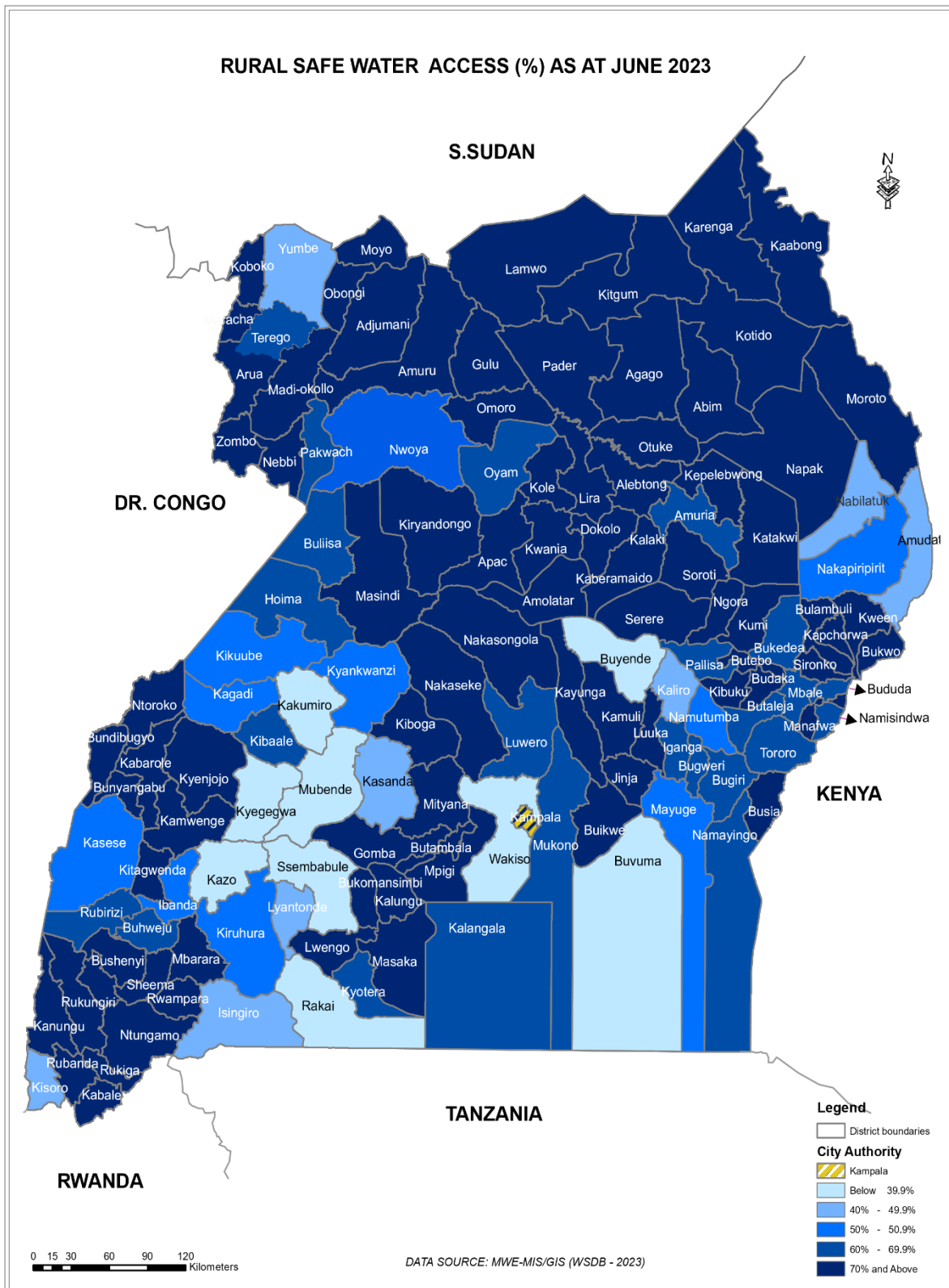


Figure 25: Rural safe water access as of June 2023

(iii) Percentage of water sources functional at the time of spot-check

As of June 2023, the functionality for rural water supplies **84%**. This was a decline from 85% in the FY 2021/22. This was attributed to inadequate budget allocation for the rehabilitation of the aging rural water infrastructure coupled with the quality of construction and materials, and higher than design user rate.

55% of the districts had functionality rate above the national rate of 84%. 45% of the districts had functionality rate below the national rate. The 5 districts with the lowest functionality include Omoro (44%), Kitgum (50%), Agago (54%), Rukiga (56%) and Gomba (57%). The 5 districts with the highest functionality include; Mubende (100%), Bududa (99%), Buhweju (99%), Kalangala (99%) and Kibaale (99%).

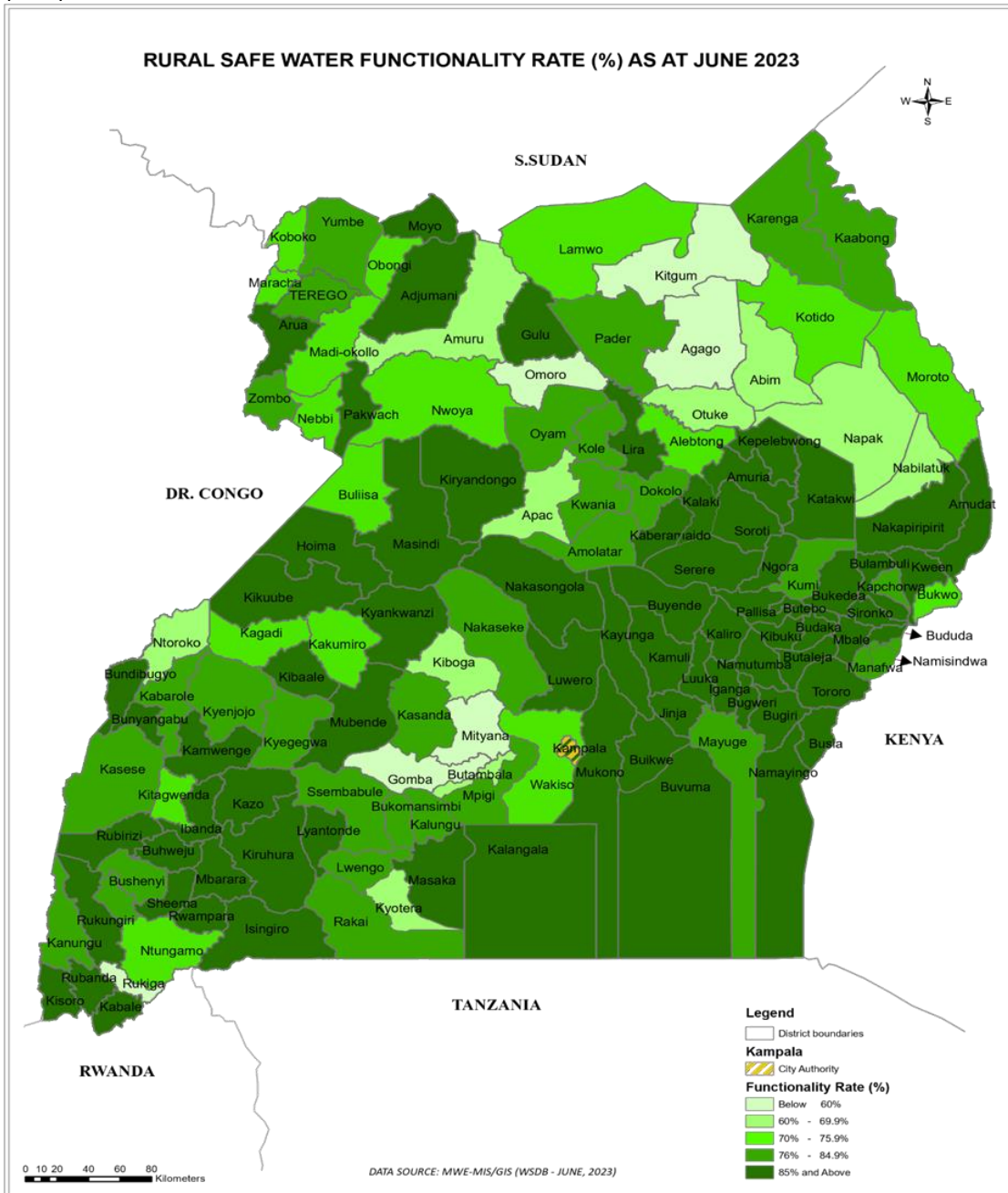


Figure 26: Rural safe water functionality as of June 2023

Other Outcome Indicators

Average cost per beneficiary of new water and sanitation schemes (USD)

The per capita investment cost is calculated as the “total MWE and District Local Governments expenditure on rural water supply divided by the total of new people served.” It is estimated that a total

of **467,578** persons (i.e., **398,962** by the DWSDCG⁵ and **68,616** by centrally managed projects) were served by MWE and District Local Governments with **new** water supplies in 2022/23.

The overall per capita cost for rural water supplies was estimated at USD **87** (UGX **321,541**), higher than the USD **73** (UGX **261,846**) in FY 2021/22. This cost per beneficiary on new water and sanitation schemes was due to increased costs of construction materials and some water supply systems were yet to be completed.

Percentage of Water and Sanitation Committees with at least one woman holding a key position

It is a critical requirement for Local Governments to facilitate communities to form and train gender-sensitive WSCs for all the newly constructed water sources. Formation of gender sensitive WSCs requires at least one woman holding a key position including chairperson, vice chairperson, and secretary on the WSC. The percentage of WSCs with at least a woman in a key position increased from 87% in FY 2021/22 to 90% in FY 2022/23.⁶ This was attributed to the increased gender awareness of the role of women in water supply.

Percentage of rural water points with actively functioning Water and Sanitation Committees

A functional Water and Sanitation Committee (WSC) is the one that ensures that a water point continues functioning at all times. This is achieved through collecting O&M funds regularly with good record keeping, holding regular meetings, undertaking minor repairs, and maintaining adequate sanitation around the water source.

The functionality of WSCs has stagnated at **90%** since FY *2019/20*. The stagnation is attributed to a reduction in the non-wage recurrent budget, which affected the continuous support and re-activation of WSCs by extension workers at the district and sub-county levels.

⁵ This excludes 06 District Local Governments namely Napak, Bududa, Bugweri, Hoima, Kasese and Ntoroko that did not submit their annual reports to the Ministry of Water and Environment in FY 2022/23. It is an improvement from 12 District Local Governments in FY 2021/22 to 06 District Local Governments in FY 2022/23.

⁶ This performance estimation is only based on approximately 87% data entry as the Water Supply Database is undergoing an update.

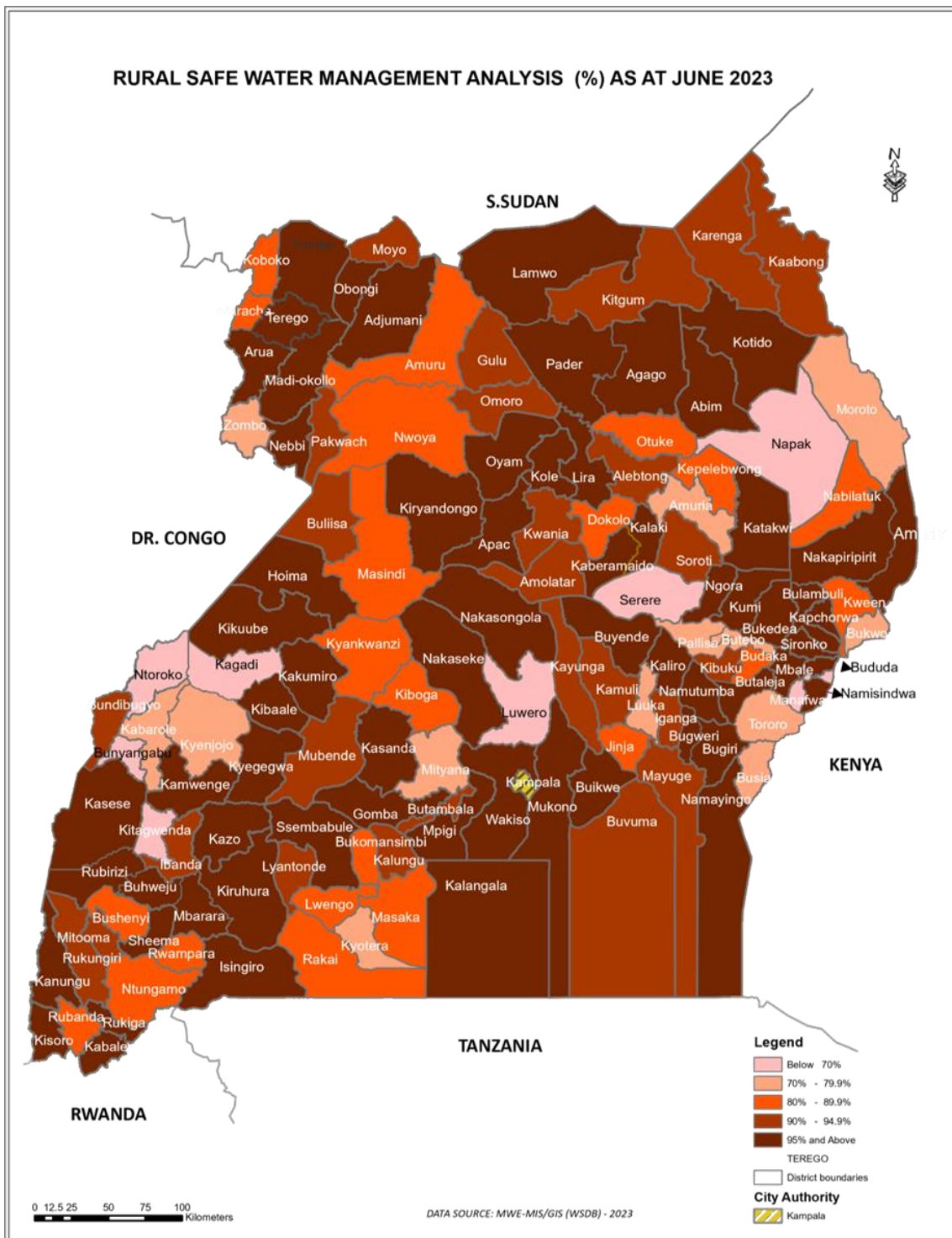


Figure 27: Safe water sources with WSCs

7.1.1.3 Rural Water Supply Interventions

(i) Construction of Piped Water Systems (new, ongoing, and extensions)

Completed/ongoing water supply systems

Table 28 presents the water supply systems completed during the FY 2022/23. These included Kabuyanda Water Supply System in Isingiro District, Kanyabwanga Water Supply System in Mitooma District, and Lukalu Kabasanda WSS in Butambala district. Districts completed the construction of 126 out of the 127.

Table 28: Ongoing/completed water supply systems

Description	Target	Achieved	Progress/ Comments
Kabuyanda Water Supply System in Isingiro District	97%	100%	The water supply and sanitation system was completed. So far 856 connections have made serving 20,544 persons .
Kanyabwanga Water Supply System in Mitooma District	95%	100%	The water supply system was completed. 20 public stand posts were constructed, serving a total of 4,000 persons .
Lukalu Kabasanda WSS in Butambala	94%	98%	The water supply system is substantially complete, with 550 connections (538-yard taps, 9 institutional connections, and 3 kiosks) constructed, serving a population of 13,272 .
District Local Government constructed Piped Water Supply Schemes/ GFS	127	126 (98.4%)	Districts substantially completed the construction of 126 water supply systems, serving 113,400 persons .
Construction of Nyabuhikye-Kikyenkye GFS in Ibanda.	77%	95%	The Water Supply and Sanitation System is substantially complete, with 1000 promotional connections constructed serving 24,000 persons.
Kahama II WSS in Ntungamo	75%	82%	The Kahama II WSS targets a population of 22,009 persons. It has 210 (200-yard taps and 10 public stand posts) promotional connections serving 6,800 persons .
Construction of 16 Rural Growth Centres Piped Water Systems in selected districts with sub-counties having low water coverage (Buyende-2, Mayunge, Namayingo, Kaliro, Kyankwanzi-2, Rakai-2, Kasanda, Nakasongola, Mukono, Kagadi-2, Kakumiro-2).	40%	20%	Completed surveys and siting in all the 20 RGCs, drilling of 33/40 wells in the 20 RGCs, pump testing of 24/33 drilled wells with 8/33 wells having low yields. The drilling activities commenced in Moyo district.
Construction of Bitsya Gravity Flow System in Buhweju District.	50%	___%	The site was handed over to the contractor to start construction.
16 Rural Growth Centres (RGCs) in Refugee Host Communities – Lots 1,2,3.			Works Contract for 3 RGCs in Kiryandongo was signed and works commenced.

Water supply systems under procurements

Table 29 presents the water supply systems under procurement. These include the construction of Isingiro Water Supply System, Ala – Ora Gravity Flow System in Madi- Okollo District, and Nyamugasani Water Supply System in Kasese District. The procurement is at varying stages.

Table 29: Water supply systems under procurements

Description	Target	Achieved	Progress/ Comments
Construction of Isingiro Water Supply System.	30%	0%	The works contract was retendered because of the high prices of returned bids. The revised tender document was submitted to AfDB for approval.
Ala – Ora Gravity Flow System in Madi- Okollo District			Works tender was advertised. The technical evaluation report for consultancy services was submitted to the World Bank for approval.
Construction of Nyamugasani Water Supply System in Kasese District	50%	—%	The evaluation report consultancy services was submitted to the World Bank for approval. A Tender for works was initiated, and the World Bank granted approval to publish.

Water supply projects under design

- **Design for the Construction of the Mpungu - Nyakizinga Water Supply and Sanitation System (Kasese):** Carried out a design review to identify the potential of other water sources.
- **Construction of 17 medium and large piped water schemes:** Detailed Designs for at least 26 out of a total of 47 Schemes completed.
- **Construction of Potika Gravity Flow Scheme, Ngoma-Wakyato Gravity Flow Scheme, Bukedea Lower GFS Phase I, Rwebisengo Kanara GFS II, and Bwera Gravity Flow Scheme:** The construction of these water supply systems and schemes will not commence due to the cancellation of USD 94.594 million loan agreement meant for the development of Large Gravity Flow Schemes

Construction of Large, Medium, Mini piped solar powered water supply Systems

The status of construction of large, medium, and min piped solar-powered water supply systems commenced. Table 30 shows the schemes at the stages of construction.

Table 30: status of piped solar powered water supply systems

Description	Target	Achieved	Progress/ Comments
26 Large Solar Powered systems constructed for Rural Growth Centers across the country	50% completion	0	Procurement of the works contracts commenced.
Construction of 60 Solar Powered Water Supply Systems in the districts of Yumbe, Amudat, Ssembabule, Rakai, Buvuuma, Buyende, Mubende, Kisoro, Kyegerwa, Lyantonde, Kyankwanzi, Namayingo, Buliisa, Bulambuli, Mityana, Moroto, Agago, Ibanda, Kasese, Bukedea, Sheema, Lamwo, Nakaseke and Nebbi.	1%	1%	Construction of 2 systems in Kwankwanzi district is ongoing. 20 sites handed over to the contractor in Agago (4), Kaabong (2), Yumbe (3), Kyankwanzi (2), Mityana (2), Buliisa (2, Kasese (2) and Amudat (3) Detailed Designs for 15 were completed and approved, and detailed engineering designs for 47 systems are ongoing.
Construction of 302 solar powered piped water supply system in rural area of Uganda (Maracha, Moyo, Adjuman ,Yumbe, Oyam, Amolator, Apac, Kole, Pader, Amuru, Agago, Nwoya,Alebtong, Dokolo, Kaabong, Amudat, Napak, Nakapiripirit,	10%	10%	282 locations have been identified: 216 sites are under pre-feasibility and test pumping stage, 43 sites are under feasibility, 4 sites are under detailed design, 8 sites are under construction, and 11 sites failed the test due to limited water resources.

Description	Target	Achieved	Progress/ Comments
Kotido, Moroto, Kumi, Serere, Bukedea, Amuria, Ngora, Mayuge, Bugiri, Butaleja, Kamuli, Namayingo, Kibuku, Namutumba, Luuka, Buyende, Pallisa, Iganga, Kaliro, Buvuma, Kyankwanzi, Kiryandongo, Kayunga, Gomba, Luweero, Kiboga, Buikwe, Nakasongola, Wakiso, Hoima, Mukono, Mpigi, Mubende, Kibaale, Lyantonde, Sembabule, Kalangala, Masaka, Lwengo, Rakai, Isingiro and Kirihura).			

The UNICEF provided support in the construction of 47 mini solar-powered pumping water systems for schools and health facilities in 8 districts serving 28,000 persons.

Construction of new boreholes

Under the District Water and Sanitation Conditional Grant (DWSCG), **825** boreholes or hand-pumped wells, **107** protected springs, **77** Rainwater Harvesting Tanks 10m³, and **4** valley tanks were constructed. Table 31 presents water points constructed using the DWSCG.

Table 31: New water points constructed under DWSCG

Technology	Planned	Achievements	%
Protected Springs	108	107	99.9%
Deep borehole	815	825	101%
Design of piped water systems	109	109	100%
Construction of piped water systems	129	126	98%
Rainwater harvesting	85	77	90%
Valley Tanks	4	4	100%
Dams	4	4	100%
Rehabilitation of Water Facilities	1,128	1,214	107%
Public Latrines in RGCs	84	84	100%
Extension of Piped water systems	21	18	85%
	2,399	2,480	

Drill and rehabilitate 455 Hand-pumped wells and production wells across the country: Hydrogeological investigations, drilling, and pumping tests on 16 new production wells and 13 test pumping on existing wells were conducted. 3 production boreholes were drilled, with 2 in Luwero and 1 in Wakiso.

Rehabilitation of a water point per village

During the FY 2022/23, the District Water and Sanitation Conditional Grant (DWSCG) to the District Local Governments (DLGs), **1,214** new point water sources were rehabilitated, restoring service to **364,200** persons.

UNICEF, under the emergency Water, Sanitation, and Hygiene intervention, rehabilitated **20 boreholes**, restoring service to **6,000 persons** in the district of Kotido.

Rehabilitation of Piped Water Systems (new, ongoing, and extensions)

UNICEF constructed and upgraded **4** water supply systems located in Mubende district (Madudu HCIII, Kiyuni HCIII, and Butologo HCIII) and in Kasanda district (Kalwana HCIII), serving **18,500 persons**.

Provision of communal or institutional rainwater harvesting technologies

42 communal or institutional rainwater harvesting systems were constructed during the reporting period, serving **252 persons**.

7.1.1.4 Other Achievements

109 designs were submitted and approved by the District Local Governments to the MWE.

Performance of Rural Water and Sanitation Regional Support Centres

There are 6 Rural Water and Sanitation Regional Support Centres (RWSRCs) based in Fort Portal, Soroti, Lira, Mbale, Moroto, Wakiso and Mbarara towns. These were involved in the planning and development of rural water piped water supplies in their respective areas of operation across the country. RWSRCs supported the implementation of the DWSCG, including monitoring compliance with standards, quality assurance, utilization of resources, and capacity building. RWSRCs carried out research on rural water supply operation and maintenance and supported Districts in planning, budgeting, procurement, and contract management.

RWSRCs have been instrumental in assessing the functionality and completeness of local government water and environment programs by supervising and monitoring the implementation of the **additional financing for the Water Component under the Uganda Intergovernmental Fiscal Transfers Program for Results (IFTRP)**. The objective of IFTRIP is to enhance the adequacy and equity of fiscal transfers to Local Governments and improve fiscal management of resources for service delivery. The program provides additional financing to the LGs up to the tune of UGX 150 billion over a period of three years. The achievements so far are **indicated in Annex 8 Table 1: Construction and extension of piped water supply system, Table 2: Provision of Portable Water to Seed Secondary Schools, and Table 3: Provision of Portable Water to Newly Upgraded Health Center IIs to Health Center IIIs.**

Among the other key interventions, the RWSRCs have been instrumental are, updating and disseminating Sector Grant and Budget Guidelines, back-stopping LGs in Environmental, Social Safeguards, and Health risks, and participating in the development of technical manuals, tools, and guidelines. Participated in the review of the water and environment functions to strengthen guidance for water and environmental management at LG level; popularized the Operation and Maintenance Framework for Rural Water Infrastructure in five regional centres; and, developed Performance Improvement Plans for poorly performing local governments. Figure 28 shows the **geographical area** of operation of RWSRCs.

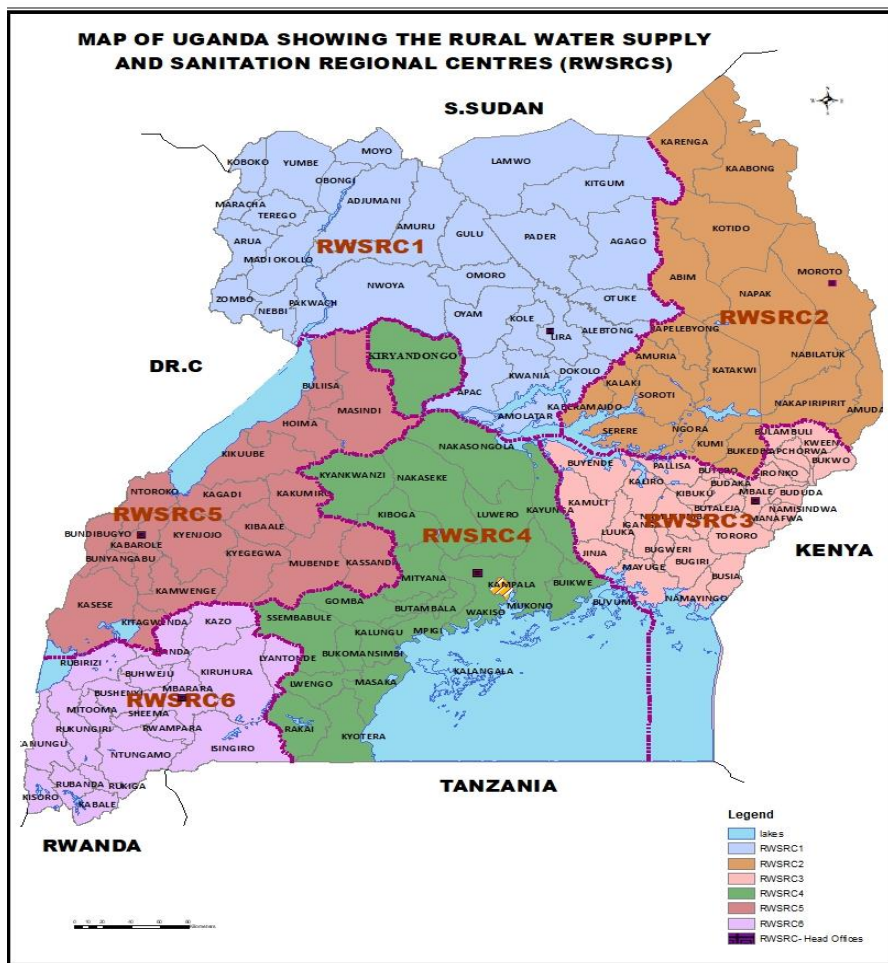


Figure 28: Operational areas of RWSRCs

7.1.1.5 Improving Functionality for Rural Water Supplies using the Dms+ Sunda Model By JICA

With support from the Japanese International Cooperation Agency (JICA), the Direct Management System + Sunda Model (DMS+SUNDA) has been introduced in the districts of Mubende and Kassanda. The model is an improvement of the Community Based Maintenance System (CBMS). The model entails professionalising and enhancing synergy in the CBMS structures and systems for the purposes of ensuring that functionality of boreholes is guaranteed with a maximum downtime of 24 hours. Through the Mubende Rural Water Service Centre that commenced operations in 2017, the DMS + Sunda model has demonstrated commendable capacity to ensure timely repair responses, coordination of local handpump mechanic services, quality assurance of spare parts, direct support to water source caretakers and preventive maintenance arrangements for all enrolled boreholes have been achieved. In addition, the Sunda system has been introduced to ensure that all water users contribute towards the maintenance of their water sources in an efficient, effective, and transparent method.

The rural water service center is supervised by a joint water and sanitation committee referred to as the Joint Management Committee on behalf of the water users in the two districts and regulated by the Director for Water Development. The committee is supported by the respective district water officers and the regional service support and rehabilitation center in Mubende, acting on behalf of the Director for Water Development. The current enrolment of water sources under the service center is 78 water sources. An additional 165 water sources are currently being considered for enrolment into the system. This exercise is anticipated to be completed by June 2024. The service center requires a minimum enrolment (critical mass) of at least 300 water sources to ensure its sustainability and minimal reliance on external support to maintain community water sources.



Inset above Left: JICA Chief Representative (2nd left) visiting Lubugumu Borehole in Kibalinga Subcounty, Mubende District managed by Mubende Rural Water Service Centre (enrolled under the DMS +Sunda). ***Inset Right:*** Mubende Service Centre staff being supported by the Regional Service Support Centre to carry out borehole assessment using borehole camera in Kassanda

In addition, a regional service support and rehabilitation centre has been set up in Mubende and equipped by the Japanese International Cooperation Agency (JICA) to support Mubende Rural Water Service Centre with specialized services required in the maintenance of community boreholes. These services include undertaking borehole assessment using the downhole camera, routine mobile water quality testing, major rehabilitation that includes water well airlifting/flushing using an air compressor, and specialized fishing out of debris (broken rods, pipes, and other foreign material) in water wells. The centre has also been given equipment by JICA to set up a repair workshop whose services will be used by the Mubende rural water service center and other centres to repair handpump parts, including welding, fabrication, and modification of stainless-steel material. This workshop is strategically purposed to recycle stainless-steel material in order to reduce the costs of the service centre on procurement of spare parts.



Inset Left: Airlift for a community borehole in Omia Pachwa, Borehole rehabilitation in Kassanda District, ***(Centre)***; Rapid water quality testing by the Regional Service support centre- Mubende and Mubende Rural Water Service Centre in Kassanda District ***(Right)***.

To replicate the DMS +Sunda model of management, 2 additional Rural Water Service Centres have been proposed for Kiboga (covering a cluster of Kiboga and Kyankwanzi Districts) and Mpigi (covering a cluster of Mpigi and Butambala Districts) respectively. A separate substation has also been proposed for Gomba District. This substation will be coordinated by the Mpigi Rural Water Service Centre.



Inset is some of the specialised equipment provided by JICA to the regional service support and rehabilitation centre in Mubende for specialised support. This includes Tripod stand with chain block for major repair of borehole (Extreme left), Air lifting compressors for water well cleaning (Centre) and workshop equipment (Extreme Right) to start up the repair workshop in Mubende

At a national level, 3 additional regional cluster service support and rehabilitation centres have been set up to roll out the DMS+ SUNDA model at a district cluster level. The regional cluster centres are located in Gulu, Jinja, and Masaka.

The DMS + Sunda model is a lower service level model of professional management that is aligned to ensure that rural water sources are integrated into the higher service level model of the CBMS+ model. CBMS + model of management seeks to further professionalize the management of rural water supplies using the Area Service Providers (ASPs).

7.1.1.6 Rural Water Challenges and Way Forward

Challenges

(1) The shortfalls in GOU counterpart financing and delayed releases have impeded the progress of most infrastructural investments across the country.

(2) Operation and Maintenance of Rural Water Supplies:

- Inadequate support from both central and local governments in the maintenance of rural water supply infrastructure.
- Governance and accountability challenges at the community level leading to misuse of collections.
- Nonfunctional supply chains and quality control for spare parts leading to high costs for spare parts.
- Lack of effective framework to facilitate meaningful engagement of Handpumps Mechanics Associations and Handpumps Mechanics.

Way forward

Continuous engagement with the Ministry of Finance, Planning, and Economic Development to increase the water grant to accelerate rural water supply coverage as well as strengthen the Operation and Maintenance of rural water facilities.



7.1.2 URBAN WATER SUPPLY

7.1.2.1 Introduction

The Urban Water Supply Sub-programme comprise large and small towns. National Water and Sewerage Corporation (NWSC) operates in large towns, and Umbrella for Water and Sanitation Authorities (UWSA) operates in small towns. NWSC operates in 273 towns across 97 districts. During the FY 2022/23, the Corporation took over 10 additional towns of Kakumiro, Nyalweyo, Kasambya, Kikoola, Nkooko, Mpasaana, Kisiita, Kanara, Katooke, and Kithoma. The Corporation achieved 94% of its HCD PIAP target of 280 towns. Table 32 shows the trend in the increase of towns under NWSC.

Table 32: trend in coverage of towns by NWSC as of June 2023

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
No. of Towns	236	254	259	259	262	273	295	93%
No. of Districts	66	72	95	95	95	97	97	100%

There are 6 Umbrella for Water and Sanitation Authorities (South–West, Mid–West, Central, Northern, Eastern, and Karamoja) responsible for 498 gazetted Water and Sanitation Systems. Of these, UWSA directly manages 298. However, there are over 1,085 Piped Water Supply and Sanitation Systems in Small Towns and Rural Growth Centres across the country. The majority of these schemes are operated by Water User Committees, Private Operators, Local governments, and NGOs.

Table 33: Umbrella for Water and Sanitation Authorities Towns (schemes) covered

Indicator	swUws	mwUws	cUws	nUws	eUws	kUws	Total
No. Schemes (gazatted)	132	74	147	109	81	37	580
No. Districts	19	18	24	29	34	9	133

7.1.2.2 Urban Water Supply Outcome Indicators

(i) Urban Population with access to an improved water source (200m)

During FY 2022/23, access to safe water in urban areas increased from 72.1% in FY 2021/22 to 72.8%. The annual target of 78.4% was not achieved because of inadequate funding coupled with a rapid population growth rate in urban areas. The rate of investment in urban water supply infrastructure is lower than the rate of population growth rate in urban areas, estimated at 5% per year. The slight increase in coverage was attributed to the 14 completed piped Water Supply and Sanitation Systems (9 in small towns and 5 in large towns).

In large towns, NWSC serves approximately **18 million people**,⁷ with an estimated service coverage of **78%**. In small towns, the population served was estimated at 1.473 million, with service coverage of 52.5%. The additional population served in the FY 2022/23 was 773,000.

⁷ This includes the urban and rural population supplied water by NWSC.

Table 34: Trend in Safe Water Coverage in Urban areas for the period 2010/2011–2022/2023

		10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
NWSC	Total Population (millions)	3.24	3.38	3.84	4.42	4.9	6.64	8.0	8.0	14.247	15.974	20.545	22.545	23.365
	Population served (millions)	2.43	2.61	2.99	3.38	3.72	5.44	6.3	6.3	10.590	11.884	15.703	17.585	18.225
	%coverage	75%	77%	78%	77%	76%	82%	79%	79%	74%	74%	76%	78%	78%
MWE-Small Towns / RGCs	Total Population (millions)	2.38	2.49	2.61	2.23	2.07	1.69	1.50	1.6	1.543	0.491	2.969	0.629	1.473
	Population served (Millions)	1.28	1.42	1.52	1.46	1.38	0.45	0.44	0.57	0.733	0.275	0.761	0.379	0.773
	%coverage	54%	57%	58%	65%	67%	27%	29%	36%	55.9%	69.7%	25.6%	60.2%	52.5%
	%coverage											94.4%		
Total Urban	Total	5.62	5.87	6.45	6.65	6.97	8.34	9.4	11.3	18.304	0.491	26.334	23.995	24.838
	Population served (Millions)	3.71	4.04	4.51	4.84	5.11	5.89	6.6	8.7	14.471	0.275	18.865	20.006	20.400
	%coverage	66	69	70	73	73	71	71	77	79.1	70.5	71.6	72.1%	72.8%

Note: The population served includes the population in the large towns, small towns and some rural areas served by both NWSC and Umbrellas of Water and Sanitation.

(ii) Percentage of villages with access to safe water supply

A total of 476 additional villages were served in urban areas. These comprise 425 villages in small towns and 51 in large towns. This increase was attributed to the new piped water supply and sanitation systems and those expanded/upgraded in small and large towns. The additional villages were more than those added (237) in the FY 2021/22. Table 35 shows the trends of additional villages covered per year in small towns.

Table 35: Additional Villages served in small towns (2019–2023)

Year	No. of Additional Villages	Completed Towns water supply systems
2023	425	9
2022	237	16
2021	613	26
2020	534	16
2019	453	12

The cumulative number of villages served under large towns was 10,476 compared to 10,425 in FY 2021/22. Table 36 shows the incremental trend in the number of villages served in large towns over the past 5 years.

Table 36: Villages served by NWSC in large towns FY 2017/18 to 2022/23

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
Villages under NWSC Jurisdiction	10,609	12,015	13,437	15,056	16,500	16,720	16,720	100%
Villages Served	3,490	5,770	7,192	8,811	10,425	10,476	12,744	82%

(iii) Functionality rates of urban water systems

The functionality of the Piped Water Supply and Sanitation Systems in small towns was estimated to be 85% against the target of 89%. This was higher than 83% in FY 2021/22. Table 37 shows the trend of functionality in the past 5 years. There has been a decline in in functionality over the past two years.

Table 37: Functionality of water supply schemes in small towns (2019-2023)

Functionality of water systems in	Functionality (%)
2023	85
2022	83
2021	90.2
2020	94.0
2019	94.3

Table 38 presents the functionality of water supply schemes by UWSA. Karamoja UWSA had the lowest functionality rate of 67%, and southwest UWSA had the highest functionality rate of 93%. The average days water was available in a month was 26 days. Karamoja UWSA had the least average days (21 days).

Table 38: Functionality of water supply systems by UWSA

Indicator	swUws	mwUws	cUws	nUws	eUws	kUws	Total
% of all registered schemes that are	93%	87%	91%	84%	85%	67%	85%
Number of days with water supply at full capacity in a month	26	28	25	28	28	21	26
Average hours of water supply per day	22hrs	19hrs	17hrs	20hrs	22hrs	14hr	19hrs

(iv) Population using safely managed drinking water located at premises

This parameter is computed = % of connections on premises *% functionality *% complying with water quality. The safely managed drinking water coverage increased from 56.9% in FY 2021/22 to 58.9% in FY 2022/23. This was attributed to increased piped water connections. Additional 18,173-yard connections were installed in large towns (4,627) and small towns (13,546).

Table 39: performance of Safely Managed Water Supply

Year	Safely Managed (%)
2023	58.9
2022	56.9
2021	67.30
2020	57.11
2019	20.00

(v) Industrial Parks with safe water supply and sewerage services

NWSC has connected water to the 9 developed industrial parks, and various businesses have been connected to the water supply systems. Nshaara, Karamoja, Kabarole MMP, Buikwe, and Mbale Industrial and Business Parks are still under development. NWSC will work with UIA to ensure these parks are supplied with water. All the new Industrial Parks, except the one of Mbale, fall outside the NWSC sewerage coverage areas, and as such, they are not being served by NWSC.

(vi) Percentage of water samples taken that comply with national standards

The drinking water quality was monitored on a quarterly basis by the Umbrellas for Water and Sanitation Authorities through water sampling. Samples were collected from water supply systems at the source, at the tank, and at collection points. 95.2% of the samples tested complied with the National Standards. This was attributed to Umbrellas of Water and Sanitation conducting decentralized water quality monitoring, including testing and providing feedback on the results to the schemes.

Table 40: Trend of compliance with national drinking water standards in Small towns

Year	samples complying with National Standards (%)
2023	95.2
2022	95.1
2021	94
2020	96
2019	89

Water quality monitoring samples in Large towns

NWSC continuously monitors water quality to ensure compliance with the national standards. During the FY 2022/23, 117,446 water samples were collected, tested and analyzed. 99.9% of the samples complied with the National Standards for the bacteriological quality of potable water, exceeding the WHO standard of 97% compliance. This was higher than the 98% compliance level of the previous reporting period. On Average, the overall compliance of both the physio-chemical (color, turbidity, chlorine residual, pH, Alkalinity, Hardness, Electrical conductivity) and bacteriological parameters was 97%. The trend in compliance with water quality standards is presented in Table 41 and 42.

Table 41: Trend of compliance with Water Quality standards for the FY 2017/18 to 2022/23

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
Samples Tested Annually	81464	94484	117,627	108,438	130,829	117,446	60,000	196%
Monthly Average of Samples Tested	6,789	7,874	9,802	9,037	10,902	9,787	5,000	196%
NDP III target	Nil	Nil	Nil	5,000	5,000	5,000	5,000	100%
Target Achievement	-	-	-	181%	218%	196%	100%	196%
% of water samples taken that comply with national standards	99.30%	98%	99.80%	99.80%	99.80%	99.90%	99.90%	100%
Average Performance to physio-chemical and bacteriological parameters	98%	96.70%	98%	98%	98%	99%	98%	101%

Table 42: Trend of compliance with Physio-chemical and Bacteriological water quality standards

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Bacteriological Quality (%)	99	100	100	100	100	99.2
Colour (%)	87	84	88	87	86	88
Turbidity (%)	97	96	97	98	97	97
Chlorine residual (%)	97	95	98	99	99	99
pH (%)	100	100	100	100	99	98.4
Electrical Conductivity (%)	100	100	100	100	100	99.7
Alkalinity Total (%)	100	100	100	100	100	99.6
Hardness Total (%)	100	100	100	100	100	98.8
Average (%)	98	97	98	98	98	97

7.1.2.3 Urban Water Interventions/Actions

(i) Construct new piped water supply systems using regional and integrated national approaches in Small Towns

Completed the construction of 9 water supply and sanitation systems of Kayunga-Busana, Nakasongola, Kyenjojo-Katooke, Kagadi, Odramacaku, Atiak, Okokoro, and Bibi towns. The construction of 39 water supply and sanitation systems was ongoing, as presented in Table 43.

Table 43: Status of construction of water supply and sanitation systems in small towns

Town/RGC	% completion	Town/RGC	% completion
Binyiny	93%	Zigoti- Expansion	49%
Nyakatonzi	80%	Busiika-Expansion	52%
Buikwe	67%	Ngoma	23%
Kapchorwa	75%	Lacekocot	75%
Bundibugyo	85%	Pakele	27%
Kamuli	29%	Agii	32%
Butemba / Bukwiri	90%	Bulangira	48%

Town/RGC	% completion	Town/RGC	% completion
Nalukonge / Lusozi	90%	Amus	56%
Kyankwanzi	90%	Alucokok	61%
Busia	75%	Kagulu	93%
Kiboga –Expansion	51%	Ocapa	70%
Kokumu	39%	Keri-Oraba	24%
Miranga Cell	40%	Zombo	36%
Buyamba	40%	Kakingol	12%
Lwanda	50%	Kalapata	35%
Kati	55%	Lunya	12%
Parabong	24%	Kaliro-Namungalwe	Mobilization
Igorora Phase	Mobilisation	Obongi	Mobilization

(ii) Upgrade water supply systems in Large towns (number)

NWSC substantially completed the construction of the following projects:

Upgrading of the Hoima Water Supply System: The project aimed at improving water supply reliability in Hoima City. The milestones included Re-drilling 4 production wells (boreholes) to replace collapsed casings and increase their yields, replacement, extension, and construction of the existing and new pipe network, and construction of new reservoirs and boreholes.

Lyantonde Water Supply Project: The project aimed at improving water supply reliability in Lyantonde town and the surrounding areas, including Rushara Industrial Park. The milestones included an intake of capacity of 500m³/day, an offshore pipeline of DN 300mm, 100m into Lake Kakyera, raw water pumping main of DN 300mm, for a length of about 1km, a water treatment plant of capacity of 500m³/day, DN 300mm treating water pumping main of length 12km, 1500m³ RC reservoir, 10km distribution pipe main of DN 300mm. The status of ongoing water supply projects in large towns under NWSC is presented in Table 44.

Table 44: Status of on-going projects in large towns

Project	Status
Kampala Water- Lake Victoria WATSAN Project (KW – LVWATSAN)	<ul style="list-style-type: none"> • Detailed Design Report has been finalized. • Procurement of land for the Kanyanya Booster Station and Reservoir is ongoing and payment has been effected for the land of the Kungu Booster Station. • Filling of the platform with gravel is complete. Monitoring of settlement is ongoing. • Piling for the sedimentation tank completed. • Steelworks and formwork for the first lift and base of the sedimentation tank completed. • Construction works for the public toilets commenced and ongoing. • Pipelaying works in progress. • Overall progress at 35%.
Integrated Water Management and Development Project & Integrated Programme to Improve Living Conditions (IPILC) in Gulu Phase 2.	<ul style="list-style-type: none"> • Construction in progress at the Water treatment plant site (administration building, staff houses, workshops). • Overall project progress is at 29%. • Relocation of existing utility infrastructure is in progress; MTN infrastructure relocated. • Pipe laying commenced in June 2023. • Overall project progress is at 15%. • Obtained comments from the WB on work packages; the comments were addressed and revised documents submitted to the Bank.

Project	Status
	<ul style="list-style-type: none"> • Tender documents reviewed by NWSC. • Financial bids were opened on 26th May 2023, and evaluation done. • CC approved combined evaluation report, the report was submitted to the World Bank on 10th July 2023 for clearance.
Development of Water and Sanitation Infrastructure for the Mbarara – Masaka Areas. (South Western Cluster)	<ul style="list-style-type: none"> • Works at Bihunya and Kabingo PS commenced and ongoing. • Verification and compensation of PAPs ongoing. • Soil nailing works commenced and ongoing. • Pipes delivered to site. • Pipe laying activities commenced and ongoing. • Foundation excavations commenced for the treated water tank and pumping station, sludge thickeners (process structures). • Access road works to the intake structure commenced and ongoing. • Overall progress is at 28%.
	<ul style="list-style-type: none"> • Re-scoping proposal submitted and currently under review.
	<ul style="list-style-type: none"> • Draft detailed design report submitted and currently under review.
Wakiso West WatSan Project	<ul style="list-style-type: none"> • SG's clearance to the draft contract obtained.
Hoima Water Supply Improvement Project	<ul style="list-style-type: none"> • Substantially completed and under monitoring So far system performance is satisfactory
Bushenyi Water Supply Augmented Project	<ul style="list-style-type: none"> • Intake works at 60% progress. • Construction of water treatment plant units at 80% progress. • 0.7km out of 3.35km of raw water and treated water pipelines laid, 21% progress.
Kyankwanzi Water Supply Project	<ul style="list-style-type: none"> • Intake works modifications were approved, and mobilization started • Construction works completed, pending installation of fixtures and painting
Kalungu Water Supply Project	<ul style="list-style-type: none"> • Commenced works at the intake • Construction of water treatment plant units at 75% progress • Laying of raw water and treated water pipelines at 70% progress
Lyantonde Water supply Project	<ul style="list-style-type: none"> • Substantially completed and under monitoring. • So far system performance is satisfactory
Soroti water Supply project.	<ul style="list-style-type: none"> • Site handover done in May 2023, and Contractor is fully mobilized • Initial studies were all done • Offshore intake works were done • 2km out of 20km of water pipeline were laid, 10% progress. • Overall physical progress at 20% • Detailed design and tender documentation ongoing.
Tororo Water Supply Project	<ul style="list-style-type: none"> • Detailed design and tender documentation ongoing.
Moroto Water Supply Project	<ul style="list-style-type: none"> • Detailed design and tender documentation ongoing.
Lira Water Supply Improvement Project	<ul style="list-style-type: none"> • Bid evaluation completed, and contract awarded • Secured Solicitor General approval for draft contract • Secured Board clearance for expenditure of funds

Project	Status
100% Service Coverage Acceleration Project (SCAP 100)	<ul style="list-style-type: none"> • Installed 9155.38Km of new water mains. • Connected 338,377 new customers • Installed 20,063 new PSPs • 7,168 additional villages covered from 3,631 in 2016 to 10,799 as of March 2023.

(iii) Construction of pro-poor public stand posts in Large Towns (number)

NWSC prioritizes services to the poor and has undertaken several pro-poor initiatives over the past 5 years, with the objective of improving the lives of the people living in poor urban settlements. Some of the key initiatives include;

- Reduction of the pro-poor tariff from Ushs.38 per 20-liter jerrycan to Ushs.25 (VAT Inclusive).
- Construction of Public Stand Posts (PSPs) through the SCAP 100 Project with an affordable tariff of UShs.25 per 20-litre jerrycan. The Corporation has constructed 17,255 new PSPs since the project's inception in 2017.
- Installation of pre-paid meters totalling 1,665 pre-paid meters with the aim of eliminating intermediaries who tend to make the service so costly to the poor.

During the Financial Year 2022/23, the Corporation installed **2,808** new PSPs. This denotes an achievement of **78%** of the HCD PIAP target of **3,600 PSPs** for the FY 2022/23. The total Number of PSPs as at June 2023 stood at **29,177** comprising **24,604 (84%)** active PSPs and **4,573 (16%)** inactive.

Table 45: Annual Trend of PSPs/Kiosks for the Period 2017/18 - 2022/23

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
New PSPs/Kiosks	3,342	3,550	4,429	3,793	2,141	2,808	3,600	78%
Total PSPs/Kiosks	12,305	17,186	21,615	25,393	28,858	29,177	32,458	90%
Active PSPs	83%	88%	88%	85%	82%	1%	-	-

(iv) Construction of pro-poor public stand posts in Small Towns (number)

The Umbrellas have undertaken a number of pro-poor initiatives to improve the living conditions of the urban poor and the less privileged across all coverage areas. Some of the initiatives included tariff subsidy at PSP and connections in refugee and host communities, especially in the districts of Adjumani, Yumbe, Terego and Madi-Okollo. Construction of the targeted 100 pro-poor public stand posts was exceeded to achieve a record 848 PSPs during the reporting year. The majority of the installed PSPs were recorded under Northern Umbrella because they support a number of refugee settlements/communities.

The pro-poor initiatives are aimed at ensuring that the less privileged communities in the regions access safe water at a relatively affordable price. For instance, under Northern Umbrella, a unit (1,000 liters) of water costs UGX 1,500 in small towns and rural growth centers, whereas in refugee and host communities, this reduces further to about UGX 500 per unit at the PSP and average UGX 850 per unit at the yard taps in the refugee communities. This implies that a 20-litre jerrycan of water is obtained at UGX 30 in the STs/RGCs, whereas the same is obtained at UGX 10 and UGX 17 at the PSP and yard tap, respectively, within the refugee communities. This is affordable for these communities, and it has led to the positive response to payment of water bills even with the refugee and host communities.

Other pro-poor initiatives included block tariffing introduced in Omiyanyima and Orom in the Northern region and in the Eastern region. Water users pay UGX 1,000 for the first unit (1,000 liters) consumed (in a month) in areas of Irundu, Namagera, and Namwiwa. All these initiatives were aimed at ensuring that the less privileged communities get access to safe, reliable, and affordable water.

(iv) Rehabilitation/ Upgrade of existing water supply system in Small Towns (number)

The MWE planned interventions in 67 water supply systems. The interventions included rehabilitation/upgrading of piped water supply and sanitation systems. The works included rehabilitation, upgrading, drilling new boreholes, and making extensions by the 6 Umbrellas for Water and Sanitation Authorities.

Interventions were carried out 271 small towns and rural growth centers (STs/RGCs) against the target 67. The STs/RGCs included; Itojo, Kyatiri, Tirinyi-Kibuku, Gweri, Bududa, Kamod, Pohe, Lokitalaebu, Lwemiyaga, Bikurungu, Kabuga, Parabek-Ogilli, Kitgum, Masulita, Senyi, Irundu, Namutumba, Kagulu, Katakwi, Bukedea, Bugangri, Omiya-nyima, Oyam, Alebtong, Lora, Adilang, Rwenshama, Nkoni, Karenga, Bulumba, Matsyoro, Kanyarugiri, Igorora, Rwene, Muhoro, Kicwamba, Palabek-Kar, Kazinga, Kyaterekera, Kalagi, Nakifuma, Kiboga, Lwamata, Kabango, Buvuma, Kasasira, Namwiwa, Namagera, Nakapiripirit, Amudat, Nabilatuk, Namalu, Moruita, Alerek, Rengen, Kopoth, Orwamuge, Kacheri, Ntara, Kassanda, Kyarusenzi, Kainja, Nyahuka, Biguli, Kibaale, Nyamarunda, Kakabara, Katuna, Kitojo, Maheruka, Katunguru, Wedelai, Pawor, Lefori, Kuru, Wol, Lugore, Buhoma, Buhunga, Hamurwa, Isingiro, Ntungu, Ngarama, Kirugu, Kisiizi, Kagongi, Kayinja, Nyabushenyi, Kasenda, Kasambya, Karugutu, Mpogo, Kifuyo, Ocaapa, Pudo, Acholibur, Kacheri, Wati, Nakaperimolu, Kathile, Lolelia. The rehabilitation works led to restoring/serving an additional population of over 800,000, with 202,046 first-time users.

Drilling of 35 boreholes to enable additional water source options and increase amount of water produced was carried out in Lora, Buraro, Adilang, Mabaale, Nakawuka, Kyaterekera, Madit, Malere, Bitojo, Rwebishahi, Kabasekende, Nyamurwa, Kuru, Koch-Goma, Purongo, Acholi-Bur, Loro, Katunguru, Kathile, Morulem, Nakapelimoru, Lolelia, Nabilatuk, Nakapiripirit, Wati, Parabek-Ogil, Agwenge, Omiyanyima, Lira-Kato, Rwenshama and Kyarusenzi among others.

Installation and repair of reservoir tanks was completed for 9 sites in Buraro, Buhoma, Kitojo, Buhunga, Matsyoro, Ntungu-Kyenyango, Kihanga Pakele, and Masheruka. Rehabilitation and augmentation of treatment plants was done for 27 sites. The target of 10 treatment plant sites was surpassed because many areas were affected by heavy rains and floods, for example, Bukedea GFS, Nyahuka, Kainja, and Bududa, among others.

(vii) Expansion of the Water Pipe Network (Kms) in Large Towns

During the FY 2022/23, the Corporation laid **550 Km** of new water mains, **22%** of the HCD PIAP target of **2,500 Km**. The total pipe network as of June 2023 stood at **22,591 Km**. The performance was below target due to the delayed release of project funds by the Government of Uganda for the implementation of the SCAP 100 project. However, the Corporation will continue engaging MoFPED and MWE to ensure the timely release of projects.

Table 46: Annual Trend of Water Mains (Km) for the FY 2017/18 to 2022/23

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
New Water Mains (Km)	2,021	2,727	2,135	444	1,305	550	2,500	22%
Total Pipe Network (Km)	14,466	17,623	19,974	20,495	21,794	22,591	24,294	93%
Growth in Total Pipe Network	19%	22%	13%	3%	6%	4%	-	-

(viii) Expansion of water pipeline Networks and Connections in STs/RGCs

During the FY 2022-23, Umbrella Authorities laid 585 kms of new pipes lines. This increased the total pipeline network to 10,811kms. Subsequently, umbrella authorities added 13,546 new connections to make a total 103,640 metered connections to the systems. These are big strides happening due to improved performance and institutional strengthening strategies adopted by the utility institutions. Many of the pipelines and meters were funded under SCAP100-Umbrellas and also with support from development partners like World Bank and EU, among others. Table 47 shows network intensification and metering by UWSA.

Table 47: Pipeline Network Intensification and metering under UWSA

Indicator	swUws	mwUws	cUws	nUws	eUws	kUws	Total
Total Length of pipe network (kms)	1,516	1,576	3,300	1,454	2,216	749	10,811
Total Length of pipe network extensions added	68.7	65.5	65.9	159.5	149.7	75.7	585
Total Number of metered connections- all scheme	12,306	19,266	31,330	15,842	20,796	4,100	103,640
Total number of added metered connections	2,290	2,040	3,856	2,443	2,356	561	13,546

(ix) Increased number of household connections in Large Towns (number)

During the FY 2022/23, the Corporation made **39,357** new household water connections, which represents **98%** of the HCD PIAP target of **40,000**. The total number of household connections as of June 2023 was **717,147**, of which **86%** were active.

Table 48: Trend of Household Connections for the FY 2017/18 – 2022/23

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
New Household Connections	52,171	56,126	48,681	42,998	42,985	39,357	40,000	98%
Total Household Connections	479,429	535,555	535,555	627,234	684,418	717,147	724,418	99%
Active Household Connections	91%	89%	87%	88%	88%	86%	-	-

(ix) Increased number of household connection in Small Towns (number)

4,641 Yard Connections, 148 PSPs, and 4 Institutional Connections were constructed in the small towns through Water and Sanitation Development Facilities (WSDFs). An additional 13,546 connections were made in small towns by the 6 regional UWAs.

Table 49: Household connections constructed in small towns in FY 2022/23

	swUws	mwUws	cUws	nUws	eUws	kUws	Total
Rehabilitations / Extensions in small Towns							
No. of additional Yard Tap Connections constructed	2,290	2,040	3,856	2,443	2,356	561	13,546

(x) Water supply system development/expansion targeting industrial parks (number)

National Water and Sewerage Corporation has provided water supply systems for nine of the well-developed industrial parks, and various businesses have been connected. Nshaara, Karamoja, Kabalore MMP, Buikwe, and Mbale industrial and Business parks are still under development. NWSC will continue working closely with UIA to ensure these parks are supplied with water.

Some of the key initiatives undertaken in the FY 2022/2023 include the implementation of Capital Projects and Water Supply Stabilization Plans (WSSPs) in various Areas to boost water supply. Key projects include Katosi Water Treatment Plant, Kapeeka Water Supply Project, Fort Portal Water Production Improvement Project, and SCAP 100, among others. Other Projects that are underway include the Integrated Water Management and Development Project – Mbale, Lyantonde Water Supply Project, Soroti Water Supply Project, Tororo Water Supply Project, and Moroto Water Supply Project.

Table 50: New Water Mains Extensions (Km) laid in the Industrial and Business Parks

#	Industrial and Business Park	Water Mains Extensions Implemented				Total	Projects Connected to NWSC
		2019/20	2020/21	2022/23	2021/23		
1	Kampala	21	0	0	1	22	233
2	Bweyogerere	0	0	0	0	0	6
3	Luzira	0	0	0	0	0	11
4	MMP - Buikwe	0	0	0	0	0	0
5	Kapeeka	7.8	0.7	1.3	0	9.8	15
6	Jinja	4	6	0	0	10	1
7	Kasese	3	4.5	0	0	7.5	2
8	Kabarole	0	0	0	0	0	0
9	Nshaara (Lyantonde)	3	7	8.4	0	18.4	0
10	Mbarara	0	0	0	0	0	38
11	Soroti	2.4	0	2.4	2	6.8	11
12	Tororo	6	5	0.5	0	11.5	2
13	Mbale	0	0	0	0	0	0
14	Karamonja	0	0	0	0	0	0
Total		47.2	23.2	12.6	3	86	319

(xi) Construction of solar energy packages to improve energy efficiency of existing schemes (number of schemes)

Uganda has many renewable energy resources that can be used for energy production and the provision of energy services. Many of the resources are not fully tapped. Renewable energy sources, such as biomass, geothermal resources, sunlight, water, and wind, are natural resources that can be converted into clean, usable energy. To add to existing solar energy in Uganda, the government of Uganda is implementing the development of solar-powered water supply and irrigation systems through the Ministry of Water and Environment.

Out of the total planned 825 solar sites in Uganda, urban water was allocated 140 sites for the project. Progress on implementation of the 140 sites for FY 2022/23: 19 schemes are under construction at different levels of implementation, with some to be completed by December 2023. 28 sites are under the design stage, and 93 sites are still under the feasibility and pre-feasibility stages. Completion of the respective sites will highly contribute to the reduction of greenhouse gas emissions like carbon dioxide as well as other dangerous pollutants such as sulphur oxides, and nitrogen oxides, among others.

NWSC operates 58 solar pumping systems across all service areas, aimed at improving energy efficiency in Water Supply systems. These have been significant in fighting climate change and reducing dependence on non-renewable sources.

Table 51: Number of Water Schemes Using Solar Energy as at June 2023

Indicator	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
New Solar Systems Installed	0	4	7	0	4	7
Total Solar Powered Systems	33	37	44	33	36	43
% of Green Energy	7%	8%	9%	7%	8%	9%

(xii) Catchment and water source protection measures in rural and urban areas (number)

There is a strong connection between our business and the environment. The water we supply comes from the environment, and the sewage we treat is discharged into the environment. The impact of climate change has presented enormous challenges to the Corporation. Some of the water sources are drying up due to prolonged droughts and encroachment on the catchment areas. The Corporation is undertaking a number of activities to minimize the impact of environmental degradation and climate change. Key among the undertakings implemented during the FY 2022/23 to protect the Environment included:

Tree Planting

The NWSC implemented the “Treevolution Program” aimed at planting 10,000,000 trees in partnership with the National Forestry Authority, Uganda People’s Defense Force (UPDF), School Water and Sanitation Clubs (SWAS), Young Water Professionals (YWPs) - Uganda Chapter and the Ministry of Water and Environment. Over the past three years, the Corporation has planted 5,598,325 trees. These trees were planted at various points, including Institutions like schools, NWSC Installations, and water sources.

Sensitization Programmes

- 1) *School Water and Sanitation Clubs (SWAS)*: This entails the Corporation sensitizing school-going children on the value of the environment and hygiene, and its impact on water for the current and future generations. This is implemented through drama, skits, poems, and quizzes, among others.
- 2) *Water Community Sensitization Program (WACOSE)*: The Corporation continues to interface with different stakeholders through various programmes and platforms such as radio, television, community meetings, and social media. These platforms create avenues for awareness about NWSC Services, sanitation, and the environment. The communities are key because they are affected by our actions, keep an eye on our assets, and assist in the implementation of our projects.

Project Catchment Protection Initiatives

The Corporation has integrated catchment protection as a component of its Projects. This has been implemented under some projects: IWMDP Arua, Mbale, Gulu, and Bushenyi. Some of the Key undertakings include;

- Demarcation of the River Banks to prevent continuous degradation.
- Restoration of the buffer zones of the Rivers, Planting of suitable tree and grass species.
- Community sensitization (within the catchment areas).
- Stabilization of the collapsing River Banks by construction gabions.
- Promotion of rainwater harvesting to avoid misuse of water in homesteads.
- Training for stakeholders in catchment management.
- Sensitization of local communities.

In addition, the Corporation has completed the development of water source protection plans in the project Areas of Arua, Mbale, and Gulu, and currently procuring the contractors to implement the measures proposed for the micro-catchment. The Corporation signed a consultancy services contract with the World Wide Fund for Nature to oversee the Environmental Conservation Measures for Kitagata River in Bushenyi, the Katosi-Bay Catchment Management Plan is also being reviewed with funding from the United Nations Development Programme (UNDP).

Table 52: Tree Planting in Water Source catchments

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
Number of Trees Planted	299,251	300,749	400,000	2,074,853	1,258,386	1,265,086	1,666,667	80%
Number of Water Source catchments	-	-	14	28	71	80	127	63%

(xiii) Catchment and water source protection measures in small towns

Water Catchment protection was implemented in the towns of Kayunga, Busana, Nakasongola, Kyenjojo, Katooke, Odramacaku, Atiak, Okokoro, Bibia/Elegu, and Kagadi. The Catchment protection was still ongoing until the defects liability period, although the source protection for the 8 Piped water supply was implemented to completion. Water Source improvement plans were in place and handed over to NWSC and UWSA.

(xiv) Construction/extension of water supply infrastructure targeting institutions (schools, prisons, Barracks, Religious establishments, health facilities, etc) – number of institutions

Institutions include schools, barracks, health centers, religious institutions, and roadside sanitation facilities. 32 institutions were connected to piped water supply against the target of 60. This represents a performance of 53%. Institutional facilities were constructed in 9 Small Towns.

Table 53: WASH facilities provided to institutions

Institution	No. of facilities	%age achievements	No. of facilities	%age achievements	No. of facilities	%age achievements
	2020/2021		2021/2022		2022/2023	
Schools	12	52.2	24	66.6	16	26
Health Centres	4	17.4	6	16.7	8	13.7
Prisons	1	4.3	0	0	2	3.3
Religious	6	26.1	6	16.7	6	10

(xv) Water Supply Master Plan inclusive of Enhancing M&E, Commercial Services, Visibility in the six Regions for Rural Water, Small Towns and Large Towns

The development of the Master Plan commenced. TOR were finalized for the development of a robust M&E System. The development of COVID-19 Response plans was ongoing. The pre-feasibility and feasibility studies of the Master Plan were completed. At a pre-feasibility stage, Inspection, Supervision, Monitoring, and Evaluation were identified as key success factors during the development of the Master Plan.

(xvi) Approaches and appropriate technologies developed

This intervention was not implemented in the FY 2022/23

(xvii) Undertake research studies

This intervention was not implemented in the FY 2022/23

7.1.2.4 Other Achievements

(i) Per capita Investment Cost in Small Towns

MWE invested UGX 124,344,064,796 bn in the 9 completed water supply and sanitation systems. The average per capita Investment of the 9 schemes was USD 43, the same as last FY. The highest per capita investment cost was for the Okokoro water supply and sanitation system because of the site conditions. The lowest per capita investment cost was realized with Nakasongola, Kagadi, and Atiak water supply and sanitation systems. Figures 29 and 30 depict the trends and per capita investment costs per town.

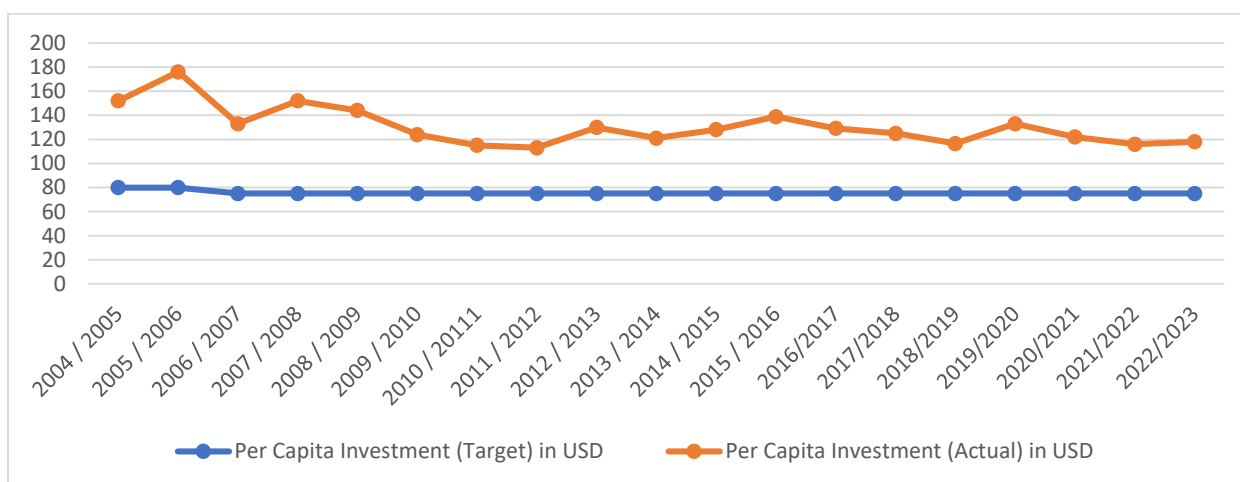


Figure 29: Trend of per capita investment cost of water supply and sanitation systems

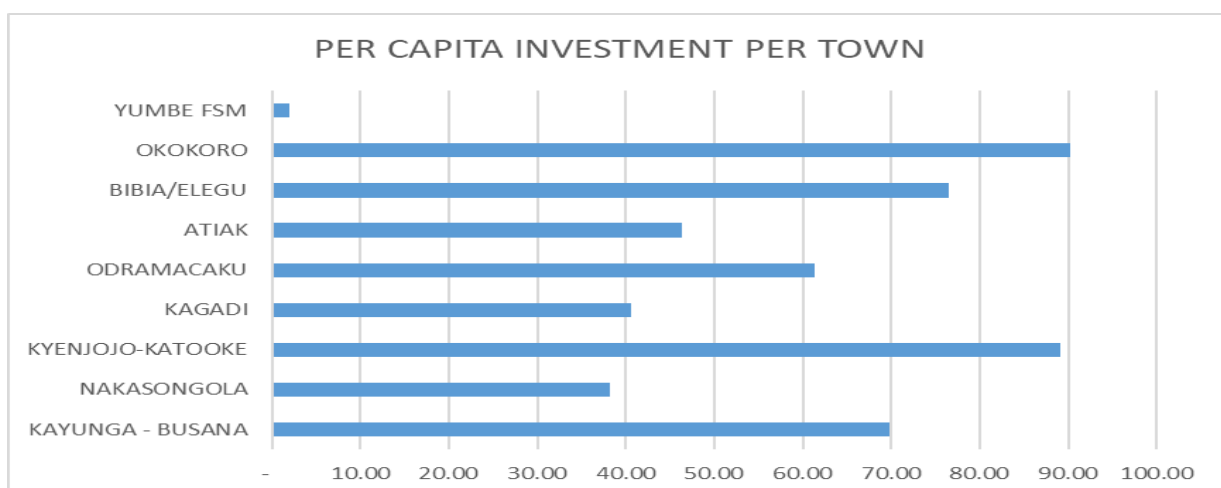


Figure 30: Per capita investment cost per town

(ii) Tariff Structure large towns (NWSC)

NWSC implements a uniform tariff structure across all towns and consumer categories. The tariff structure comprises five categories with variable tariff rates. Public stand posts are charged the lowest tariff of UGX25 per 20-liter Jerry can. The PSP tariff is subsidized to ensure affordability for the urban poor. The sewer tariff is based on water consumption. Domestic consumers are charged 75% of their water consumption. Other categories of consumers (Institutions and Commercial) are charged 100% of their water consumption. The same tariff structure applies to all service areas under NWSC jurisdiction for purposes of ensuring equity in pricing and accessibility to water and sewerage services.

Table 54: NWSC Tariff Structure as of June 2023 (VAT Exclusive)

Customer Category	Water tariff (Ushs./m ³)	Tariff per 20Liter Jerry can (Ushs./m ³)	Sewerage Tariff (Ushs./m ³)
Public Standpipe	1,060	25	n/a**
Domestic	3,516	83	2.637
Institutions / Government	3,558	84	3,558
Commercial < 500m ³ /m	4,220	99	4,220
Commercial > 1500m ³ /m	3,373	79	3,373
Industrial < 1000m ³	4,220	99	4,220
Industrial > 1000m ³	2,500	59	2,500
Average Commercial	3,938	92	3,938

*** n/a: The Corporation does not charge sewer tariff on the Public Stand Posts, save for institutionalized PSPs and are connected to the Sewer.

(iii) Tariff structure of small towns (UWSA)

Table 55: Tariff structure of small towns (UWSA)

Umbrella	Pumping/Grid		Solar		GFS		Poor communities	
	Domestic/m ³	Cost/Jerrycan	Domestic/m ³	PSP/Jerrycan	Domestic/m ³	Cost / Jerrycan	Domestic/m ³	Cost / Jerrycan
Tariff	2,990	59.8	2,500	50	2,118	42.4	848	17

(iv) Non-Revenue Water in Small Towns

The Non-Revenue Water (NRW) under small towns was improved to 28.8% compared to the 30% of the previous reporting period. The improvement was as a result of the systems improvement through upgrades, extensions and repairs made to the piped water supply systems.

Table 56: Trends in NRW in small towns 2019-2023

Year	NRW (%)
2023	29.4
2022	30.0
2021	31.0
2020	30.7
2019	33.4

(iv) Customer Satisfaction in Large Towns

Customer Satisfaction Index (CSI) is a measure that reflects the overall customer satisfaction in line with NWSC services in line with three key parameters of supply reliability, quality of water supply, and complaints resolution. During the FY 2022/23, the Corporation registered a customer satisfaction index of 78%. The corporation achieved its GoU Performance Contract Target of 75%.

(v) Performance of Umbrella for Water and Sanitation Authorities on KPI

Table 57 – 60 presents the comparative analysis of the performance of UWSA on the Key Performance Indicators set by the MWE. The KPIs include Functionality, Profitability, Non-Revenue Water (NRW), Reliability, Billing, Collection, rehabilitation/extensions, population served, and water quality.

Table 57: Performance Scheme under Umbrellas

Indicator	swUws	mwUws	cUws	nUws	eUws	kUws	
% of all registered schemes that are fully functional (adequate water quantity and quality)	93%	87%	91%	84%	85%	67%	85%
% of schemes breaking even (having an operational cost coverage ration>1)	84%	70%	90%	67%	79%	63%	76%

Table 58: Water Supply by Umbrellas

Indicator	swUws	mwUws	cUws	nUws	eUws	kUws	Total
Total Amount of Water Produced (Monthly)	122,187	154,921	226,565	121,238	127,774	29,501	782,186
Number of days with water supply at full capacity in a month	26	28	25	28	28	21	26
Average hours of water supply per day	22hrs	19hrs	17hrs	20hrs	22hrs	14hrs	19hrs

Table 59: Commercial performance of Umbrellas

Indicator	swUws	mwUws	cUws	nUws	eUws	kUws	Total
Total Number of Active Connections	12,177	16,112	26,216	15,543	20,312	3,338	93,698
Total Volume of Water Billed–Monthly (m3)	55,013	148,919	171,548	70,833	90,000	18,958	555,270
Billing Efficiency (%)	100	98	99	100	100	96	99
Collection Efficiency (%)	90	92	94	92	91	86	91

Table 60: Additional Performance Parameters for Annual Performance Progress

	swUws	mwUws	cUws	nUws	eUws	kUws	Total
Rehabilitation / Extensions in Small Towns							
No. of Towns Rehabilitated/Extended/Repaired	65	33	55	58	48	12	271
No. of additional Yard Tap Connections constructed	2,290	2,040	3,856	2,443	2,356	561	13,546
No. of Additional PSPs constructed	146	19	79	597	0	7	848
Additional Kilometers installed	68.7	65.5	65.9	159.5	149.7	75.7	585
Population of People Served							
Total Population served	542,631	689,885	1,630,655	1,391,140	692,232	281,573	5,228,116
Additional population served	28,216	28,000	51,348	78,300	142,582	1,600	202,046

	swUws	mwUws	cUws	nUws	eUws	kUws	Total
Additional Villages Served	24	33	40	58	6	2	163
No. of additional Institutions with improved Water Sources in FY	84	58	60	92	155	8	457
Water Quality Monitoring							
Total No. of Samples Collected	592	3,404	642	924	273	220	6,055
% Samples that conform to the National Standards (%)	88.9	95.4	95	96	98	98	95.2
No. of FSM Managed by the UWA							
No. of FSM Managed	0	0	4	3	1	0	8
Capacity of Fecal Emptied/ collected (m³)	0	0	96.5	31.2	0	0	127.7
Non-Revenue Water							
NRW (%)	26	34	30	27	28	28	28.8
Functionality of Piped Water Supply systems							
Functionality (%)	93	87	91	84	85	67	85
Employment Opportunities Created							
No. of Employment Opportunities	181	136	416	348	269	44	1,423

(v) Professionalization of Umbrellas

MWE, with support from the World Bank, started to improve the performance of the Umbrella Authorities through professionalizing their operations. The overall objective of this initiative is to develop the Umbrellas into Well-Performing Utilities and build the capacities of the Support to Utility Management Division and the Water Utility Regulation Department to effectively undertake the supportive and regulatory roles, respectively.

The support covers Corporate Governance and Internal Organization, Accounting and Financial Management, Technical Operations, and Commercial management. The key areas of focus comprise improving strategic planning, integrating the MIS systems, change management and capacity development, effective M&E systems, business planning, and assets management, among others. The World Bank, along with other development partners like the European Union (EU), Africa Development Bank (AfDB), Water for People, Vitens-Evides International (VEI), KfW, USAID-USHA Project, WSUP Advisory-UK and United Kingdom Export Finance (UK-EF) are in line to help Umbrella Authorities build capacities to be able to improve performance and ensure consumer satisfaction.

Challenges

1. Increased demand for the water supply service in both Small and Large Towns compared to the rate of investment in water supply infrastructure.
2. Dwindling External Financing of the Water Supply projects, yet the demand is growing across the country.
3. Escalated Costs of the Construction materials that affected the completion of some water supply and sanitation projects.
4. Inadequate counterpart financing of the water supply and sanitation projects. This affects the timely completion of the Projects.

7.1.3 WATER UTILITY REGULATION

7.1.3.1 Introduction

The Ministry of Water and Environment undertakes regulation of water supply and sanitation services through the Water Utility Regulation Department (WURD). Water supply and sanitation regulation is meant to strike a balance between the commercial and social objectives of water and sanitation service provision. The current regulation framework is by a Performance Contract (PC) signed between the Minister on behalf of the Government of Uganda and the water authority responsible for the provision of water supply and sanitation services. The performance contract specifies the scope of work, rights, and obligations of each party to the contract.

The regulatory functions, including contracting/ licensing, technical quality assurance, tariff approval, customer protection, and arbitration, contribute directly to the Human Capital Development Program through:

- a) Increased access to inclusive, safe water, sanitation, and hygiene (WASH) with emphasis on increasing coverage of improved toilet facilities and hand washing practices and
- b) Invest in effective management of the entire WASH value chain segments, such as containment, emptying, transportation, treatment, safe reuse, or disposal.

The key outputs for the FY 2022/23 included Performance monitoring and review for utilities, review of regulatory tools and instruments, streamlining the gazetting process, review of the tariff policy, strengthening water metering testing and calibration, roadmap for regulating city-wide inclusive sanitation and benchmarking umbrella performance.

Access to pro-poor facilities

To ensure access to pro-poor facilities, contracting, approval of water tariff as well and developing regulatory tools and instruments is critical. These aid in ensuring that mostly low-income areas receive affordable and quality water and sanitation services.

Compliance to pro-poor tariff/ service provision

A **pro-poor strategy/intervention** is specifically targeting the poor and thereby reducing inequality; the poor are targeted, and not the overall economic growth of a society. A typical pro-poor water and sanitation strategy is, therefore, a strategy where the 'poor' (people under the poverty line and without access to safe drinking water) are benefiting disproportionately more than those above the poverty line and/or with access to safe drinking water. The aim of pro-poor strategies in the water context is to stimulate economic growth in the poorest communities using water supply as a tool/ as a solution; this is referred to as **relative pro-poor growth**. Whereas **absolute pro-poor growth** sees the improvement of the well-being of the entire society, hence less targeted and ultimately also benefitting the non-poor.

The major principles of pro-poor practices in the 2006 Pro-Poor Strategy is to (1) subsidize tariffs, (2) reduce connection fees, (3) introduce and promote various types of public water points (PWP), and (4) densify and expand piped scheme networks in low-income settlements.

The government and other development partners have implemented various initiatives/innovations directed towards ensuring that the vulnerable groups of the population receive effective and efficient water services. Currently, there are about **32, 288** public water points i.e., UOs = **3,900 for UOs, 28,269 for NWSC**, and 119 for Buikwe District Local Government.

It is also noted that there is a high number of inactive public water points i.e., **NWSC= 4,413 and UOs =273** this render the poor that are supposed to be served by these facilities to be vulnerable to use of unsafe alternative sources or to exploitation by middle men dealing in water. **250** Vulnerable households in Eastern Region and **480** household in Buikwe District Local Government were connected as deliberate efforts to ensure that the Poor has access to water. There is also decrease in construction/ provision of

new public water points with some Utilities registering Zero in the whole quarter or achieving very low targets.

The pro-poor tariff is UGX 25 for NWSC, UGX 50 for Umbrella Water Authorities, KIS UGX 42 and Buikwe District Local Government UGX 50. However, these tariffs still have challenges due to difficulty in regulating the point of sales/ vendor's price, poor people are double-charged per Jerrycan at kiosks/ yard tap in low-income areas despite pro-poor tariffs; the amount they end up paying are more compare to household tariffs/connections.

Construction of Meter Testing and Calibration stations

A water meter constitutes a very critical component in the management and operation of water service provision. Water utilities based on the meter to determine the amount of water consumed by customers and hence the bill to be charged. However, the lack of functional water meters constrains the Non-Revenue Water computation by utilities. During the FY 2022/2023, the construction of a water meter testing and calibration stations in Entebbe is being finalized and other meter calibration and testing station will be constructed in other regions of the country. The meter testing and calibration centers will serve as quality assurance to the customers and general public as to the specific intent to improve reliability of mechanical water meters.

Establishment of Gazetting Guidelines

The department developed gazetting guidelines to streamline gazzetting and de-gazetting of water systems. The guidelines elaborate procedures for gazetting including; formal application, processing and assessment of applications and the broad criteria for assessment and evaluation. The guidelines were limited to piped water supply systems in urban areas. During the FY 2022/23, the guidelines have been operationalized as well as customization to suite point water sources in the rural areas.

Establishment of Regulatory Tools

During the FY 2022/2023, a set of regulatory tools and instruments were developed and operationalized. The tools are meant to guide in the implementation of the regulatory function. The tools include; Sanitation Regulation Guidelines, NRW Management Guidelines, Customer Service Charter, Meter Reading and Billing Guidelines, Drinking Water Quality Monitoring Guidelines, Water Safety Planning Guidelines among others. As a strategy for knowledge transfer, WURD staff attached to the consultant during the review and development of the regulatory tools and instrument.

Customer Protection

7.1.3.2 Tariff Approval

The department undertakes annual tariff approvals for all Water Authorities save for NWSC. During the FY 2022/2023, tariff application were received, reviewed and recommended for approval by the Minister. It should be noted that the current tariff regime is meant to cover O&M however, the Umbrella water authorities are unable to breakeven with the current tariff and therefore require financial support to cover some OPEX. On the other hand, National Water and Sewerage Corporation charges a uniform tariff which is indexed annually based on macro-economic factors like inflation, foreign exchange volatilities. This has kept the NWSC tariff very high compared to other utilities nationally and in the region. Table 61 highlights the approved tariff for all the water authorities.

Table 61: Water Tariffs For Gazetted Authorities (Exclusive Of 18% VAT)

National Water and Sewerage Corporation Tariff Structure: 1st July 2022 – 30th June 2023									
Category	Public Stand Pipes		Domestic Customer	Institution /Gov't	Commercial <1500m3/ Month	Commercial >1500m3/ Month	Industrial <1000m3/Month	Industrial >1000m3/Month	
	UGX per 20ltr Jerrycan	Tariff UGX per m3							
Tariff (VAT Inclusive)	21	1,060	3,727	3,771	4,473	3,575	4,473	2,500	
Tariff Structure for Umbrellas of Water and Sanitation: 1st July 2022 – 30th June 2023									
Category	Public Stand Pipes		Pumping (Grid)		Pumping (Solar)		Gravity Flow Schemes		
	UGX per 20ltr Jerrycan	Tariff UGX per m3	Tariff UGX per m3	Tariff UGX per m3	Tariff UGX per m3	Tariff UGX per m3	Tariff UGX per m3	Tariff UGX per m3	Tariff UGX per m3
Central	50	2,500	2,990	2,990	2,545	2,500	2,118	1,950	
South-Western	17	848	2,990	2,990	2,500	2,500	2,118	2,118	
Mid-Western	21	1,060	2,050 - 2,990*	2,050 - 2,990*	2,000 - 2,990*	2,000 - 2,990*	1,500 - 2,990*	1,500 - 2,990*	
Karamoja	42	2,119	2,996	2,996	2,119	2,119	N/A	N/A	
Northern	41	2,050	1700 - 2,950*	1700 - 2,950*	850 - 2500*	850 - 2500*	2,200	2,200	
Eastern	20-40	1,000 - 2,000*	2,419 - 2,870*	2,419 - 2,870*	830 - 2,542*	830 - 2,542*	1,000 - 2,050*	1,000 - 2,050*	
Tariff Structure for Kalangala Infrastructure Services: 1st July 2022 – 30th June 2023									
Category	Public Stand Pipes		Domestic Consumer		Commercial Consumer				
	UGX per 20 ltr Jerrycan	Tariff UGX per m3	Tariff UGX per m ³	Tariff UGX per m ³	Tariff UGX per m ³	Tariff UGX per m ³	Commercial Consumer Tariff UGX per m ³	Gravity Flow Schemes UGX per m ³	Gravity Flow Schemes UGX per m ³
Tariff	42	2,100	3,600	3,600	3,600	3,600	3,727	3,727	
Tariff Structure for Buikwe Local Government: 1st July 2022 – 30th June 2023									
Category	AQ-Taps/Public Stand Pipes UGX per 20 ltr jerrycan		Domestic Consumer		Commercial Consumer				
	Tariff	Tariff	Tariff UGX per m ³	Tariff UGX per m ³	Tariff UGX per m ³	Tariff UGX per m ³	Domestic Consumer UGX per m ³	Gravity Flow Schemes UGX per m ³	Gravity Flow Schemes UGX per m ³
Tariff	50	50	2,500	2,500	2,500	2,500	2,500	1,500	1,500

Review of the Tariff Policy of 2009

During the Financial year, the tariff policy (2009) for Small Towns, Rural Growth Centres and Large Gravity Flow Schemes was reviewed. This was intended to address changes in the provision of water and sanitation services in the country, update it, and have a harmonized policy applicable to all water supply and sanitation services in Uganda. The major aim was to balance the key goals of universal access, equity, efficiency, financial sustainability, transparency, and socio-economic transformation of the population in the country. The key output of this exercise included a revised tariff policy, tariff-setting guidelines, and an implementation strategy of the tariff policy. A number of tariff structures were modeled to test the requirements of the policy and guidelines to ensure that the end product is feasible and flexible. The policy was based on the following principles;

- **Structured and Transparent Subsidies:** Subsidies are recognized as necessary but shall be evidence-based to ensure good stewardship of government funds.
- **Flexibility:** the policy puts in place shared principles for service providers but allows each provider to develop a tariff structure appropriate for their needs and context.
- **Alignment to regulatory instruments:** the tariff-setting process shall be in line with the tariff policy, business plans, and performance contract, among other instruments necessary to guide water and sanitation service delivery.
- **Long-term goal of cost recovery:** achieving cost recovery is a gradual process, and tariffs shall be set with the aim of achieving cost coverage over time.

The policy approval process are being undertaken including; presentation to the senior management and top policy committee before being forwarded to cabinet for approval.

7.1.3.3 Contracting

The Minister of Water and Environment has a total of 9 running performance contracts, which include PC7 (1st July 2021 to 30th June 2024) for NWSC, PC2 (1st July 2023 to 30th June 2026) for 6 Umbrella Water Authorities, PC1 for Buikwe Local Government and Kalangala Infrastructural Service Limited. PC1 of the Umbrella Water Authorities expired on 30th June 2023. The Performance Contracts set out the roles, scope, rights, and obligations as well as performance targets and measurements.

As of June 2023, the total number of gazetted towns was 879, which represents an increase of eighteen towns from 864 achieved in FY 2021/22. However, the number of towns taken over with operational water supply systems is 632. Out of these, 273 are under NWSC, 328 are under umbrella water authorities, 24 are under KIS, and 7 are under Buikwe Local Government. Issues of operating beyond the gazette boundaries were observed and resolved using provisions of the current gazette criteria. The table 62 below shows performance highlights of gazetted utilities.

Table 62: Summary of performance Status of all Utilities

Water Authority	Date of expiry of PC	No. of gazetted towns (No.)	No. of towns taken over	Total Connections (No.)	Active Connections	Water Supplied (million m ³)	NRW %	Annual Revenue collection (Ugx billion)	Population served (No.)
NWSC	June 2024	273	273	907,938	776,075	162	34.9	491.86	19,627,290
UWAs	June 2024	575	328	103,650	93,698	7.2	26.2	14.40	5,010,827
KIS FY	June 2029	7	7	1,535	1,397	0.088	16.40	0.254	35,371
Buikwe District Local government	August 2025	24	23	709	709	0.056	24.4	0.10	46,296
Overall		879	631	1,013,832	871,879	168.79	34.5	506.6	24,719,784

Technical quality assurance

7.1.3.4 Performance of Umbrella Authorities of Water and Sanitation

The Umbrella organizations were declared as Water Authorities in 2017 to run the operation and maintenance of water supply schemes gazetted to them in addition to providing technical backstopping support to member schemes. A total of about 575 water supply areas have since been gazetted to 6 Umbrella authorities of water and sanitation. Currently, 328 towns have been taken over.

The Ministry entered into the first performance contract (PC 1) with the Umbrella water authorities for performance management spanning from 1st July 2019 till June 2023. The performance contracts set out roles, scope, rights, and obligations, as well as performance targets and measurements. The contract also provides for periodic performance assessments. Performance benchmarking for the 6 umbrella water authorities is undertaken annually to facilitate cross learning.

The benchmarking is based on the different performance indicators and their weights. Performance rating is based on; Outstanding performance (4), Achieved PC Targets (3), Achieved base Targets (2), and Below Base Targets (0). Each Umbrella Water Authority was rated based on their respective annual targets. Traffic light colors coding was introduced to show the performance level.

Table 63: Performance Boundaries for different KPIs

Rating	Colour	Score
Outstanding	Green	4
Achieved PC Targets	Yellow	3
Achieved Base Targets	Red	2
Below Base Targets	Dark Red	0

Table 64: Shows Performance Rating of 6 Umbrella Water Authorities for FY 2022/23 and FY 2021/22

KPIs	Units	Weights	FY 2022/23						FY 2021/22									
			nUws	mwUws	swUws	eUws	kUws	cUws	nUws	mwUws	swUws	eUws	kUws	cUws				
Technical																		
New Water Connections	No.	5%	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.2	0.1	0.1	0.2	0	0.2	0.2
Non-Revenue Water	%	20%	0.76	0.00	0.80	0.60	0.67	0.52	0	0	0.7	0.4	0.8	0.5	0.5	0.5	0.5	0.5
Metering Ratio	%	5%	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.2	0.2	0.2	0	0.2	0.2	0.2	0.2
Continuity of supply (Functionality)	Hrs/Day	5%	0.20	0.20	0.20	0.20	0.12	0.13			0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2
Compliance with Drinking Water Standards	%	5%	0.20	0.17	0.15	0.20	0.11	0.18			0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2
Commercial																		
Active Connections	No.	6%	0.24	0.17	0.24	0.24	0.15	0.24	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2
Water Sales	m3/yr	6%	0.24	0.17	0.17	0.24	0.12	0.24	0.2	0.2	0.2	0.1	0.2	0.2	0	0	0.2	0.2
Collection efficiency	%	8%	0.22	0.22	0.23	0.00	0.18	0.21	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Financial Viability																		
Operating cost coverage ratio	%	8%	0.32	0.23	0.00	0.00	0.00	0.16	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Budget for Investment	%	7%	0.28	0.28	0.28	0.28	0.28	0.14	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Pro-Poor Orientation																		
Pro-Poor Connections Growth	No.	10%	0.40	0.00	0.40	0.00	0.00	0.27	0.4	0.4	0.4	0.2	0.2	0	0	0	0.2	0.2
Overall			3.3	1.8	2.9	2.2	2.0	2.5	2.6	2.6	2.3	2.1	1.8	2.1	1.8	3	3	3

Overall, the umbrella authorities attained the PC targets with the exception of the Mid-Western Umbrella of Water and Sanitation.

It should, however, be noted that whereas, performance benchmarking was undertaken, Umbrella are faced data quality issues. The benchmarking exercise was only based on selected indicators with complete data. Field performance monitoring visits conducted provide an appreciation of the current performance challenges and strength as presented in table 64.

Non-Revenue Water Performance: The overall level of NRW in all regions combined was 26.2% of 7,166,266 m³ millions of water supplied in FY 2022/23. Performance improvements were registered in the South-Western and Northern region, which registered outstanding performance and achieved base targets in FY 2022/23 compared to FY 2021/22, when they achieved the base targets and below base targets, respectively. The performance of Mid-Western region remained below base targets, while Eastern and Central achieved base targets from FY 2021/22 to FY 2022/23. Performance in Karamoja declined from outstanding performance in FY 2021/22 to achieving PC targets in FY 2022/23. Table 64 summarizes the performance rating of Umbrella Water Authorities for FY 2022/23 and FY 2021/22.

Field visits noted challenges of high specific NRW in a number of schemes in the Umbrella Water Authorities. Road works were also noticed as contributors to high NRW experienced by the utilities. High water losses affect the financial performance of the service providers and reduce the amount of water available to customers.

Metering (bulk and Micro meters): A meter is a connecting link between the customer and the water authority. It helps ensure that only the amount of water supplied to customers is billed and hence prevents cheating on either side of the customer or utility. Eastern and Karamoja Umbrella Water Authorities attained the annual targets, Central, Mid-Western, and South-Western Umbrella Water Authorities attained the base targets, while the Northern Umbrella Water Authority did not attain the base target, as shown in Table 65. The regulator carried out field visits to validate this performance and observed that issues of multifunctional meters still prevail and are attributed to the quality of meters on the market. The Water Utility Regulation Department (WURD), in collaboration with the Uganda National Bureau of Standards (UNBS) is fast-tracking the setting of standards and guidelines for meters, which will help to address the above challenges.

Compliance with Water Quality. Excellent performance was registered in the Eastern and Northern Umbrella Water Authorities, that attained outstanding performance. Mid-Western and Central attained the annual targets, while South-Western and Karamoja attained the base targets. Water quality is very important in protecting the health of the population. However, there was no clear information about the sampling procedure used. The Umbrella Water Authorities are encouraged to provide a clear sampling procedure used in testing water quality for the regulator to follow when validating the information.

New Connections: Outstanding performance was registered in all regions, with the exception of Karamoja region, which performed below the base targets. The total number of new connections made in all regions is 15,019, i.e. Northern (2,443), Mid-Western (2,040), Karamoja (461), Eastern (2,338), South-Western (3,280), and Central (4,457), bringing the total number of water customers to 103,650 and serving a population of 5,010,827 people. Field visit observed that 10% of the total connections are inactive due to challenges like failure to pay bills, affordability, and customers resorting to other alternative water sources, among others.

Professionalization of Umbrella Water Authorities

The assignment aims at developing the Umbrella Authorities (UAs) into well-performing utilities. It is supporting the UAs to develop their long-term financing strategy and strategic plan, implement and assimilate standard operating procedures and systems (for network, commercial, administrative, and financial management).

The scope also covers building the capacities of Support to Utility Management Division (SUM-D) of the Urban Water Supply Department and the Water Utility Regulation Department (WURD) to undertake their oversight and regulation roles respectively. The professionalization assignment is being implemented under 4 core areas of Governance and Internal Organization Module; Finance and Accounting Module; Commercial and Customer Management Module and the Technical Operations Module.

The achievements made during the reporting period included; Development of Performance Improved Plans, 5-year Strategic Development Plans, Standard Operating Procedures for Umbrella operations, Establishment of Boards, Chart of Accounts, Several Manuals – Human Resource and accounting procedures among others. These deliverables are all being accompanied with the requisite training and capacity building.

Table 65: Performance Scorecard of NWSC FY 2022/23

Key Performance Indicator	Financial Year 2022/23							Financial Year 2021/22						
	QTR1	QTR2	QTR3	QTR4	Achieved	Target		QTR1	QTR2	QTR3	QTR4	Achieved	Target	
Technical														
Non - Revenue Water (%)	39	42.4	39.4	42.7	40.8%	41.7		43	42	39.2	41.2	41.3%	42	
Kampala Water	24	24.6	22.7	22.5	23.4%	24		25	24.6	23.1	24.2	24.3%	25	
Central Region	26	24.2	21.7	20.8	23.2%	24		30	25.1	24.9	26	26.4%	25	
Eastern	26	24.7	22.5	22.5	23.8%	24		27	23.9	22.6	24.4	24.4%	24.5	
Northern	27	29.7	27.7	28.2	28.2%	22		28	28.6	27.3	28	28.0%	23	
Western & Southwestern Region	78	78	78	78	78	78		**	**	**	**	78%	75	
System Input Metering Coverage (%)	13,542	15,943	14,896	6,210	50,591	55,000		14,814	10,276	14,497	15,110	54,697	55,000	
New Water Connections (No.)	100	77	35	25	237	250		77	300	66	132	575	200	
New Sewerage Connection (No.)	**	**	**	**	**	70		**	**	**	249	249%	65	
Capex Budget Implemented (%)														
Commercial														
Water Sales Volume Growth (M ³ Million)	27.2	25.1	26.8	26	105	95		24.2	24.9	26.6	26.3	101.9	90	
Collection/Billing Ratio (%)	87	91	91	95	95%	95		92.2	92	103	96	96%	95	
Average Days Receivables (days)	99	115	119	120	120	92		119	110	106	103	103	94	
Financial														
Return on Capital Employment	**	**	**	**	**	1		**	**	**	-0.04	0.44%	1	
Operating Cost/Revenue (Work Ratio) (%)	83	83	83	83	83%	80		79	77	77	76	77%	80	
Quality of Service and Environment														
Compliance with Drinking Water Standards (%)	98	98	99	99	99%	98		98	98	98	98	98%	98	
Compliance to Sewerage Standards (%)	76	79	76	74	74%	45		56	68	70	74.5	75%	43	
Pro-Poor Orientation								93				50%		
Pro-Poor Connections Growth	740	818	820	430	2,808	1,700		678	327	431	705	2141	1600	
Transparency and Governance														
Audit Recommendations implemented (%)	86	86	88	84	84%	83		85	87	87	87	87%	82	
Customer focus and care														
Customer Satisfaction Index (%)	75	75	75	75	75%	75		88	88	**	75	75%	75	

NB: The highlighted indicators are pending submission of reports to NWSC, and ** are pending accounts reconciliation by NWSC.

The performance of NWSC was analyzed based on information submitted by the Corporation from quarter one of FY 2021/22 to quarter four of FY 2022/23. Not all KPIs in Performance Contract 7 were analyzed because performance data on indicators like customer satisfaction survey, Capex budget implementation, Return on Capital employed, compliance to abstraction permits, and system input metering coverage could not be substantiated. The Corporation was able to surpass most of the targets with the exception of Working Ratio, Days receivable, new sewer connections, and new water connections, as shown in **Table 65 above**.

System Input Metering Coverage: The performance for FY 2022/23 maintained the previous year performance value of 78% which was a decline from 81% achieved in quarter four of FY 2020/21. Metering of service points is very crucial in ensuring fairness between the Corporation and the Customers. The Corporation is therefore encouraged to ensure 100% metering to avoid cheating of customers and the Corporation.

New Water and Sewerage Connections: The Corporation attained 50,591 new connections against an annual target of 55,000 during FY 2022/23. This has increased the number of total connections by 5.9%, from 857,347 in FY 2021/22 to 907,938 in FY 2022/23. This has improved service coverage to over 75% and serving a population of approximately 16 million people⁸. However, 14.5% of 907,938 total connections are inactive, which reduces the total customer base, and issues of inaccurate bills and low quality of water are affecting the customers' perception of quality of service by the Corporation.

The total number of new sewer connections made was 237 against the annual target of 250 connections. This brings the number of total sewer connections to 28,703, with 12.6% of these being inactive. Sewerage service coverage is still limited due to large investment requirements and high preference for onsite sanitation facilities like septic tanks and latrines by the largest portion of Uganda's population.

Water Sales Volume Growth: Good performance was attained on this indicator. The volume of water sold in FY 2022/23 was 105m³, which translates into 111% attained of the annual target of 95m³. The average tariff per cubic of water sold has increased to Ug x 5,133(VAT Inclusive) in FY 2022/23 from Ug x 4,775 (VAT Inclusive) in FY 2021/22. The average tariff is above the approved tariffs, as shown in **Table 65** also, issues of unreliable water supply and low quality of water, especially in the Northern Region, were experienced by customers. The Corporation should direct efforts toward addressing these challenges in order to increase sales.

Collection/Billing Ratio: the collection/billing ratio has declined to 91% in FY 2022/23 from 96% achieved in FY 2021/22. This performance was below the annual target of 95%. A number of customer complaints about inaccurate billings were noticed during the field activities. This has affected the customers' willingness to pay and, hence low collection efficiency. Also, non-payment by large consumers like institutions and government customers has greatly affected performance on this indicator. The collection/billing ratio below 100% implies that revenue from water sales is being held up in debts, which is likely to affect the operating activities of the Corporation. Therefore, the Corporation should carry out awareness programs to educate customers about the need to pay and also address customer complaints about the current billing.

Receivables/Arrears: Performance stands at 120 days, which is below the annual target of 92 days, and declined from 103 days achieved in FY 2021/22. Therefore, the Corporation takes 4 months to receive money tied up in debts, which affects its working capital requirements. The total arrears have increased from 137 billion in FY 2021/22 to 180 billion as at 30th June in FY 2022/23. The Corporation should embark on efforts to engage customers and encourage them to ensure timely payment of bills.

⁸ NWSC integrated annual report 2021/22

Compliance to Drinking Water Standards: Compliance to drinking water standards at 98.5% in as at 30th June 2023 against an annual target of 98%. There improvement when compared to 98% achieved in FY 2021/22. The Corporation is commended for this good performance. However, issues of low water quality in terms of smell and taste are still a challenges in a number of customers especially in the Northern Region.

Pro-poor Connections Growth. Good performance of 2,808 against an annual target 1,700 new pro-poor connections was achieved in FY 2022/23. This is a significant improved when compared to 2,141 pro-poor connections achieved in FY 2021/22. However, field visits in a number of service areas identified situations where customers are charged a pro-poor tariff that is higher than the approved tariff. The pro-poor tariff at PSP ranges from Ushs. 100 to Ushs. 200 per 20 litre jerry can of water despite NWSC having an approved tariff of Ushs. 21 (VAT Inclusive) per 20 litre jerry can. Also, unreliable supply at PSP was noticed across the country. This results from closure of taps by PSP attendants as they go to look for other means of survival, given that the collections are not sufficient to meet their welfare needs.

Impact of SCAP 100

Acceleration Service Coverage project (SCPA100) was aimed at ensuring universal and equitable access to safe water supply by the population. The target were; 20,000 PSPs, 140,000 new connections and 8,000km of water mains. A total of 9,221 km pipe lines was achieved, 338,377 new water connections were made and 20,063 PSPs installed. However, due ever increasing demand and expansion to new gazette areas as well as the ageing infrastructure under the Corporation which require much more intervention than planned including water stabilization, asset refurbishment and climate resilience intervention. The Corporation is encourage to undertake a second phase of SCAP 100 and ensure 100% access in the areas of jurisdiction.

Non-Revenue Water (NRW) for National Water and Sewerage Corporation

The overall level of NRW is 34.9% of 161,559,152m³ of water supplied translating into revenue losses of Ushs. 290 billion at an average tariff of Ushs. 5,134 (VAT Inclusive). With the exception of Western and South-Western region whose NRW level of 28.2% is below the annual target of 22%, performance in other areas is above the annual targets. Despite the reduced levels of NRW from 41.2% in FY 2021/22 to 40.8% in FY 2022/23, Kampala Metropolitan region continues to experience the highest water losses amongst the different regions in NWSC’s jurisdiction. Defective meters are being reported as one of the major causes of high NRW levels in the different regions despite reports of 100% metering. Figure 31 shows an increasing trend of NRW performance for different regions in NWSC from FY 2018/19 to FY 2022/23.

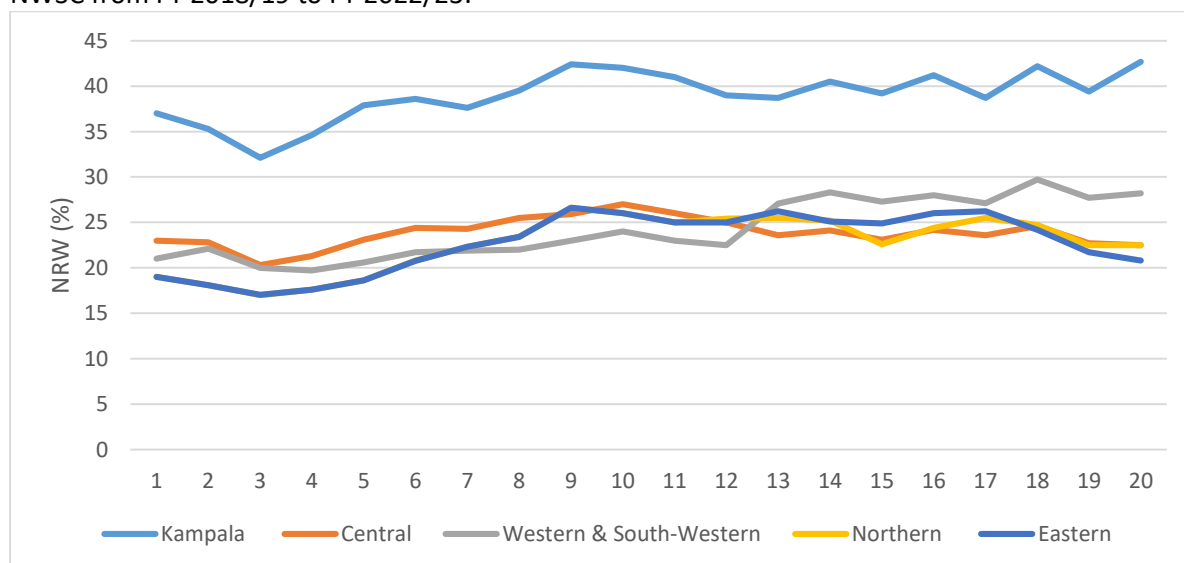


Figure 31: Trend of Non-Revenue Water performance for towns outside NWSC

NRW performance for towns outside the jurisdiction of NWSC has improved over time with the exception of Northern, Eastern, Mid-Western, and Central Umbrella Water Authorities, which experienced increases in water losses in quarter four of FY 2022/23 when compared to quarter four of FY 2021/22. Buikwe Local Government submitted data for quarter one (FY 2022/23), and therefore, no comprehensive analysis was carried out for the other three quarters. Figure 32 below shows a trend of NRW performance in all utilities outside the jurisdiction of NWSC for the last 16 quarters starting from FY 2019/20.

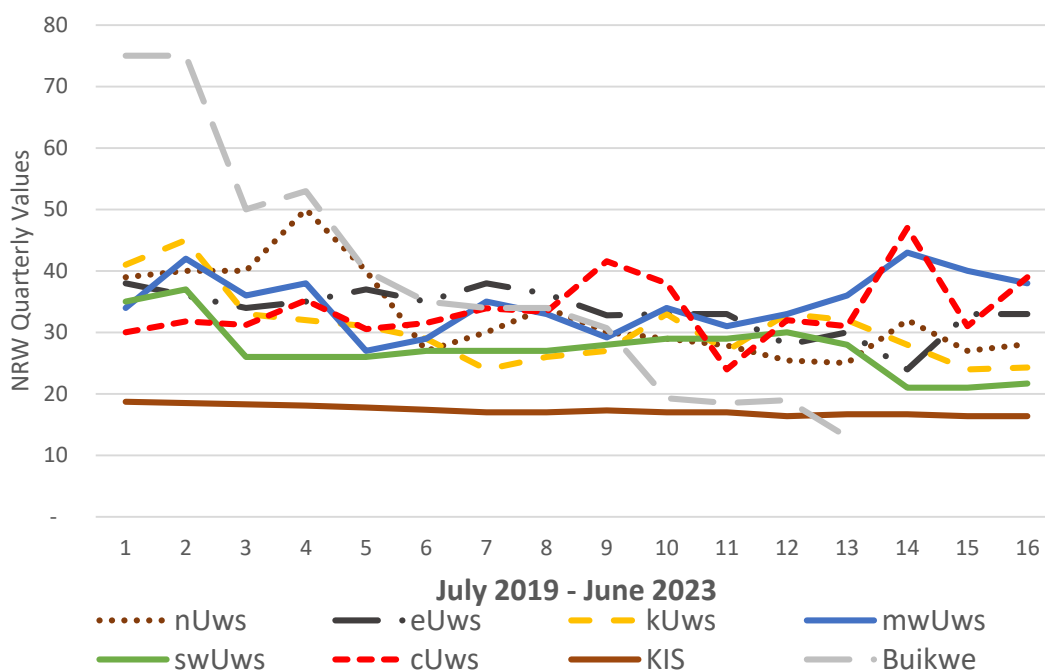


Figure 32: Non-Revenue Water Trend from 2019/20 to FY 2022/23

Umbrella Water Authorities have registered improvements in NRW performance over the four-year period. The levels of NRW (%) have reduced in the Umbrella Regions with the exception of Eastern and Mid-western percentage water losses increased from 30.9% to 33% and 31% to 38%, respectively, from FY 2021/22 to FY 2022/23. NRW levels in KIS have remained slightly varied over the four-year period, fluctuating between 18% FY 2019/20 to 16.6% in FY 2022/23. With the exception of the Central, Mid-Western, and Eastern Umbrella Water Authorities, whose NRW performance was below the annual targets, other utilities’ performance was above the annual targets. Buikwe local Government has consistently reduced NRW levels from 75% in the first quarter of FY 2019/20 to 12% in the first quarter of FY 2022/23.

Impact of urban water O&M subsidy for FY 2022/23

In an attempt to contribute to NDP III’s objective of increasing access to safe water supply, the Government of Uganda during FY 2022/23 extended support to 10 Water Authorities (6 Umbrellas and 4 Small Towns) in form of Conditional Grant to primarily address O & M challenges and increasing access to safe water.

In the reporting period, a total subsidy of 2.5 billion was allocated, out of which Umbrella Water Authorities received 2.42 billion whereas other Small Towns utilized 0.08 billion respectively with 100% budget performance reported.

However, since there is no clear criterion for determining the impact created by the subsidy in certain areas of intervention such as energy subsidy and system specific due to limitations related to their

quantification, the assessment mainly focused on additional population served through new connections.

By implication, therefore, the subsidy contributed to an increase in access to safe water by serving an additional 753,200 people, as shown in the table 66 below.

Table 66: *O&M Subsidy Impact on NDP III's Objective of Increasing Access to Safe Water Supply*

	Water Authority	Household Connection	PSP Connections	Total Connections	Increase in Population Served
1	Northern Umbrella	1,868	708	2,576	156,544
2	Central Umbrella	3,111	35	3,146	31,888
3	Mid-Western Umbrella	1,472	757	2,229	163,176
4	South-Western Umbrella	3,244	651	3,895	156,152
5	Karamoja Umbrella	3,114	4	3,118	25,712
6	Eastern Umbrella	19,385	174	19,559	189,880
7	Other Water Authorities	481	130	611	29,848
	Total additional persons served	32,675	2,459	35,134	753,200

Assumptions: *1 Household Connection serves 8 persons

*1 PSP Connection serves 200 persons

The implementation of activities supported by the subsidy has been greatly affected by delays in disbursement of funds from the districts to the umbrellas. Additionally, the ever-increasing number of towns supported by the grant has led to the progressive deterioration of the subsidy impact. The current budget allocation of 2.5billion isn't sufficient to carryout major system repairs, make new connections and extensions as well as subsidize on umbrella tariffs which are usually high due to high operational costs.

It is therefore recommended that the budget allocation for the subsidy be increased from 2.5billion to at least 10 billion. This will enable Umbrella Water Authorities to adequately handle the added responsibility that comes with the increasing number of towns annually.

It is also recommended that the subsidy be sent directly to Umbrella Water Authorities instead of using District Local Governments as conduits, thus allowing for timely implementation and monitoring of activities supported by the grant.

Current water supply and sanitation regulation constraints

- i) Regulation of rural water supply and sanitation service is still at infancy due to unclear responsibility for operation and maintenance.
- ii) There is still limited professional exposure of staff in technical aspects of regulation especially economic/financial, technical aspects as well as social fundamentals.
- iii) Fragmentation in sanitation service provision with limited demand for onsite sanitation solutions across the service chain which has limited sanitation regulation to building for regulation.
- iv) There is limited investment in water infrastructure asset renewal and replacement by government creating a miss match between the ever increasing demand and the current supply capacity.
- v) There is limited adaptation to shocks and stresses resulting from climate change by utilities which worsen the water supply service levels.
- vi) There is a high level of water losses, which affects the financial health of utilities, further affecting the water supply service levels in the country. Water rationing/intermittent supply have prompted customers to invest in self-supply and use alternative sources of water whose quality is daunting.
- vii) Information asymmetry due to limited data management practices coupled with defective/faulty system input metering, and limited internal data validation, processing, and reporting.
- viii) Absence of an asset management policy and framework which constrains the development of regulatory asset base. Utilities have not adequately classified, coded, and valued assets, further limiting asset refurbishment and replacement of aged infrastructure.
- ix) Limited frameworks for regulating water supply and sanitation in refugee settlements, given the absence of affordability by the customers.

Recommendations for strengthening regulation and performance of utilities

- i) Enhanced regulation of rural water infrastructure through the establishment of the regulatory framework for rural water supply as well as establishing regulatory regime and water supply and sanitation service models in refugee settlements.
- ii) There is a need for staff capacity building in the areas of technical, financial/economic as well as social fundamental aspects of water supply and sanitation regulation.
- iii) There is a need for government to match investments in asset renewal and replacement with the ever-growing population in order to reduce pressure on the existing infrastructure. This will also address constraints and supply barriers that have led to self-supply in areas gazetted to utilities.
- iv) There is a need to strengthen sanitation regulation through the promotion of appropriate sanitation solutions across the service chain as well as developing appropriate regulatory tools and instruments using a holistic CWIS approach to sanitation planning and resource allocation. Baseline assessments to establish the current level of access to safely managed sanitation leveraging the town sanitation planning tool or EquiServe tool.
- v) There is a need for a clear policy and framework for asset management to guide water supply and sanitation infrastructure asset classification, coding, and valuation.
- vi) There is a need for continuous proofing of water supply and sanitation against shocks and stresses resulting from climate change. Water safety planning and source protection are some of the pathways to enhance climate resilience.
- vii) There is a need to invest more in data management and processing technologies to enhance data integrity as well as address the system input metering challenge by utilities. Routine data validation exercises are preferred and need to be prioritized.
- viii) Enhancing and strengthening communication and interaction with customers.
- ix) There is a need to promote both metric and process benchmarking for water utilities/water authorities to improve service levels.

7.1.4 Urban Sanitation

7.1.4.1 Introduction

Sanitation and hygiene are key drivers of socioeconomic transformation, individual prosperity, and sustainable development. The Sustainable Development Goal (SDG) 6.2 aims at achieving universal access to safely managed sanitation and hygiene services by 2030. Investment in sanitation and hygiene services by households, communities, and governments is necessary to change community behaviour to end open defecation and ensure the construction and maintenance of safe sanitation facilities for use at all times by all people. Failure to achieve SDG 6.2 targets continues to undermine the attainment of other SDGs, which calls for increased investment in household, community, institutional, and public sanitation at all levels in order to reverse this undesirable trend.

For many years, the Government of Uganda, together with Development Partners, have invested in sanitation and hygiene improvement through infrastructure development projects and promotional interventions. In spite of such investment, the resources are still grossly insufficient to spur the requisite sanitation and hygiene improvements, and the country is still off track in achieving the highest level of service (safely managed sanitation).

Programming for sanitation and hygiene in Uganda is guided by the Integrated Sanitation and Hygiene (ISH) financing strategy (2018-2030), which is hinged on the three pillars of Demand creation, Supply chain management, and enabling environment.

7.1.4.2 Urban Sanitation Outcome Indicators

(i) Percentage of the population with access to basic sanitation in urban areas

Basic sanitation is defined as the “percentage of the population using an improved sanitation facility not shared with other households”. It is computed as $(F/G) * 100$, *F* denoting a total number of households with improved sanitation facilities not shared and *G*-total number of households in the locality.

Access to basic sanitation in urban areas was reported to have slightly reduced to 47.8% from 47.9% in FY 2021/22. This was attributed to inadequate funding of urban sanitation. Access to any form of sanitation slightly increased to 90.8% from 90.6% in the FY 2021/22.

(ii) Percentage of the population using safely managed sanitation services

Safely managed sanitation is defined as the “percentage of the population using improved sanitation facilities not shared where excreta is safely disposed in situ or transported and treated off-site” and computed as $\{(A+B+C)/D\} * 100$. *A* = total household population disposing of excreta safely in situ, *B* = total household population reported to have emptied and transported excreta by gutters/cesspool emptier, *C* = total household population using sanitation facilities connected to a sewer system, and *D* = total household population of District, i.e., RGCs and Sub-counties.

The population using safely managed sanitation in urban areas increased to 41.02% from 40.7% in the FY 2021/22. This was attributed to increased marketing and awareness creation of fecal sludge management services across the service chain (containment, emptying, and transportation, disposal, re-use) through Umbrellas of Water and Sanitation and engagements with the private sector.

(iii) Percentage of population with hand washing facilities with soap and water at home in urban areas

Hand washing is measured as the “percentage of people with access to hand washing facilities” and computed as $(M/N) * 100$, *M* = the total number of households with hand washing facilities, and *N* the total number of households in the locality.

Access to hand washing with soap in urban areas slightly dropped to 53.1% from 53.4% in FY 2021/22. This was attributed to the perceived reduction in the risk of getting COVID-19.

(iv) percentage of the population practicing open defecation

The percentage of the population practicing open defecation is calculated as $(H/I) * 100$. *H* = total number of people in households practicing open defecation, and *I* = total household population in a District, i.e., RGCs and Sub-counties. In urban areas, the population practicing open defecation was 9.2%. These have no access to any form of sanitation facility.

7.1.4.3 Urban Sanitation Interventions

(i) Social behavior change communication for construction and use of improved sanitation facilities in urban areas

The campaign for the construction and use of improved sanitation facilities in urban areas was conducted across the Country by the WSDFs, Umbrellas of Water and Sanitation, and the MWE. The campaign was carried out through training, radio and TV talk shows, community mobilization, and sensitization. The campaign was conducted in 129 Rural growth Centers, representing 59.2% of the 218 Urban centers targeted. The activity was carried out in implementation and design areas.

(ii) Construct Faecal Sludge Management processes, transport, and appropriate sewerage infrastructure in Small Towns

Centrally managed projects

The Ministry of Water and Environment has continued directing its efforts towards improving the situation by providing fecal sludge treatment facilities and improving access to collection and transportation capacity to ensure universal access to safely managed sanitation by all small town' dwellers by 2030, in line with the Sustainable Development Goals.

This is being implemented following a clustering concept that was developed through a nationwide sector assessment supported by the World Bank Water and Sanitation Program (WSP) in 2014. 50 potential clusters of small towns were identified to be provided with shared Faecal Sludge treatment/disposal infrastructure to help improve faecal sludge service chain management across Uganda.

During the FY 2022/23, the Construction of three Faecal Sludge Treatment Plants (FSTPs) commenced in Rukungiri, Koboko, and Kumi with funding from the World Bank. MWE 6 Cesspool trucks with funding from the African Development Bank. These have been allocated to the 6 Umbrellas of Water and Sanitation for operation and maintenance (O&M).

Completed the design of the FSM facilities in the towns of Wobulenzi, Kiira Municipality, Kigumba Town Council (TC), Kanungu, Kyazanga, Namutumba, Kapchorwa, Patongo, Moyo and Nebbi to serve a cluster of Rural Growth Centres (RGCs) and Small Towns. The delay in completion of the designs was caused by delayed land acquisition, political support, and the flow of cash, as well as the COVID-19 pandemic, which affected the recruited consultant to move on with the tasks during the lockdown period. Table 67 shows the designed FSM facilities.

Table 67: Completed Detailed designs for faecal Sludge Treatment Plants (FSTPs)

Town/Proposed location of FSTP	Cluster Towns to be served	Region
Wobulenzi	Wobulenzi, Luwero, Bombo, Semuto Zirobwe, Busiika, Bamunanika, Kiwoko	Central
Kiira Municipality	Kira, Kasangatti, Namugongo, Seeta, Kyaliwajala	
Kigumba TC	Kigumba, Bweyale, Kiryandongo, Katulikire	
Kanungu	Kanungu, Kihiihi, Katete, Kambuga, Butogota	South West
Kyazanga	Kyazanga, Kinoni, Mbirizi Lyantonde	
Namutumba	Namutumba, Kaliro, Bugiri, Idudi, Namungalwe	
Kapchorwa	Kapchorwa, Sipi, Binyiny	
Patongo	Kalongo, Pader, Patongo	North
Moyo	Moyo, Laropi, Lefori, Arra / Dufile	
Nebbi	Nebbi, Paidha, Pakwach	

WSDF managed projects

Two FSTPs have been constructed under the Water and Sanitation Development Facility – North (WSDF-N) with funding from KfW. One FSTP in Yumbe has been completed, and one FSTP in Rhino Camp in Madi-Okoro is 90% complete.

The FSTP in Yumbe is serving the cluster towns of Yumbe Town Council (TC), Midigo TC, Lodonga TC, and other nearby refugee settlements like Bidibidi Zone 1 and 2. This plant has been handed over to the Umbrella of Water and Sanitation for operation and maintenance and has greatly improved access to sanitation services by refugees and hosting communities of Yumbe, Kuru, Midigo, and Lodonga Town Councils.



Photo 1: Mixing and grit chamber for separation of solids from liquids at Yumbe FSTP



Photo 2: sludge drying beds for sludge treatment at Yumbe FSTP

(iii) Innovations/technologies developed

Management model applied under Umbrellas of Water and Sanitation for collection, transportation and treatment of Faecal Sludge in Small Towns; A case of Northern Umbrella of Water and Sanitation (NUWS)

NUWS is under taking two management models in managing faecal sludge collection and transportation in two cluster towns of Apac and Anaka. These models include Government Private Partnership and Direct management by NUWS.

NUWS with support from GIZ-S4M has piloted Government Private Partnership in Apac cluster for a period of one year. This model involves signing of a service agreement between NUWS and the private operator. In the service agreement, the private operator is to serve two clusters, i.e Apac and Anaka cluster on the basis of scheduled emptying. Each cluster covers six towns respectively. Under the project, NUWS has provided emptying services to 250 households on promotional arrangement which boosted the market for faecal sludge emptying and transportation within the clusters. As a result of the awareness that was created during promotional emptying, the communities have welcomed the services. So far, NUWS through the hired private operator have provided emptying services to 42 households in Anaka cluster on call.

The similar approach of marketing emptying services was applied to Dzaipi and it has generated a gradual increase in the volume of faecal sludge received at the treatment plant as of end of June 2023.

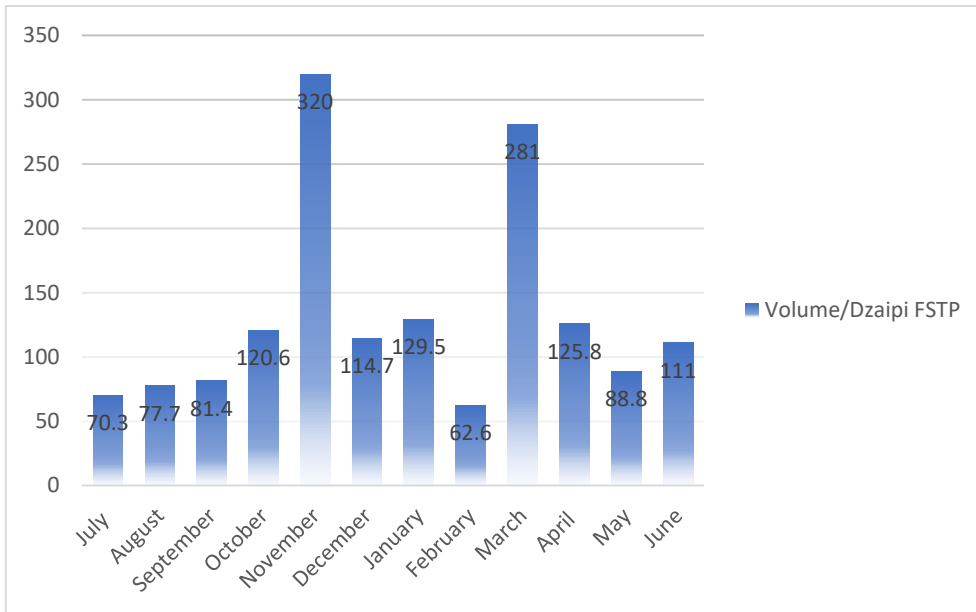


Figure 33: Volume in cubic meters that has been received at Dzaipi FSTP as of June 2023

Digitalization fecal sludge tracking system

To further improve the service delivery in fecal sludge collection and transportation, NUWS has piloted an online tracking system (Weyonje APP) in Anaka and Dzaipi clusters. This online system has greatly improved the data management of the services offered by all the operators that are operating in the clusters. Through capturing their data, tracking emptying services/number of jobs done, and keeping real-time data on fecal sludge collection and transportation services within the clusters.

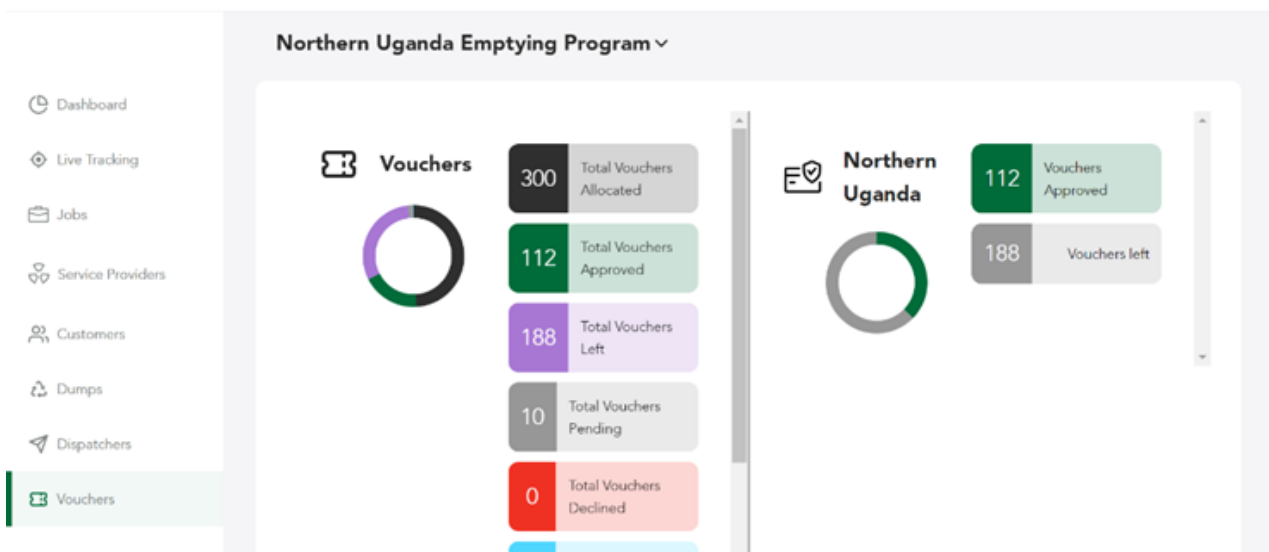


Figure 34: Weyonje online tracking system application

Management of FSTP: Case of Kasali FSTP

The Ministry of Water and Environment through WSDF Southwest and Central Umbrella of Water and Sanitation constructed Kasali FSTP to address the sanitation challenge of sewerage and Central Umbrella of Water and Sanitation currently manage it. The FSTP has been in operation since January 2019 to date and the facility serves Kyotera District and the nearby areas of Lyantonde, Rakai and Masaka Districts. Kasali FSTP receives at least 10 trips per a month. Kyotera town being one of the beneficiary districts to desludge its faecal waste to Kasali FSTP, the percentage of emptyable toilet facilities is still low (VIP toilets, lined pits, septic tanks) since the town is characterized with traditional pit latrines.

With the intense awareness creation on safely managed for the population served, there has been a significant change in people's behaviour and this has greatly reduced on unsafe disposal of waste in the open drainage channels and the wetlands and communities have been informed that waste can be collected using cesspool emptier trucks since most of the building plans are only approved by the districts only if a structure to be erected has a lined VIP and a water borne toilet facility in place.

Kasali FSTP team have engaged Kyotera district sanitation committee, Health Inspectors and all the different sub counties and town councils, some community-based organizations, development partners among others in the different meetings to ensure that faecal waste is safely managed and ensure that sanitation marketing done at different levels of community engagements. However, key issues tackled include how best they can improve water and sanitation issues in the district.

Different initiatives like marketing, Central umbrella for Water and Sanitation is working together with (USHA) Uganda sanitation for health Activity-Masaka office to market Kasali FSTP facility in areas within Kyotera district and the surrounding areas so as to improve the sanitation status in Kyotera. The main objective is to create an environment free from faecal matter considering the health and safety of faecal sludge entrepreneurs (FSMEs) and this is done through use of vouchers and stickers that are distributed throughout the communities.

Sales agents initiative under this, sales agents were selected from the existing VHTs and trained by USHA to do marketing and they are paid on commission basis. For every job they get they are entitled to 5% of the total pay for that particular job and they are motivated to market further and get clients. In addition to sales agents Kasali FSTP operator works with blockers most especially people that do plumbing work and they provide leads at times and they are paid accordingly depending on the number of trips got from that particular client brought on board.

Liaising with health inspectors from sub counties and town councils that do regular inspection in people's homes, businesses, and hotels there by identifying those in need of emptying sewage and compelling them to do so while giving those particular people our contacts so as to get the sewage emptying service. Radio programmes and announcements. This was funded by USHA and through it people got to know about the facility some called for the service whereas others promised to call when their toilets are due for emptying.

Government initiative of construction of lined ventilated improved pit latrines in schools and health facilities has also helped in widening our customer base. Most of it all Kasali FSTP has a Marketing Officer employed by Cuws that is also responsible for marketing and sensitizing the community about Kasali FSTP facility and benefits of emptying their toilets and also guides communities in constructing emptyable toilets.

The Kyotera Town Council Authorities has also ensured that they only approve plan having emptyable toilet facilities like septic tanks and this has greatly helped in increasing the number of emptyable toilet facilities since this was passed by Government of Uganda in 2020 Kasali FSTP expects to even perform

(iv) Construction, Development, and Improvement of Sewerage infrastructure, support to transport equipment and transfer stations in large towns

This intervention requires a bigger consideration of New FSM treatment plants, upgrading of wastewater treatment plants, provision of emptier and small trucks, development of transfer stations, and construction of public toilets. These were not planned for during the reporting period.

(v) New Faecal sludge treatment plants

The NWSC operates centralized sewage treatment systems in 17 towns out of 262. These include; Kampala, Jinja, Entebbe, Masaka, Iganga, Tororo, Mbale, Soroti, Lira, Gulu, Arua, Mbarara, Fort Portal, Hoima, Masindi, Kabale, and Kisoro. NWSC also operates faecal sludge treatment facilities in 7 towns, namely; Buwama, Bukakata, Ntungamo, Mayuge, Pallisa, and Kampala (Lubigi and Bugolobi).

(vi) Upgrade Waste Water Treatment Plants

NWSC undertook a number of capital projects aimed at improving sanitation in the various Areas. Key among the Projects undertaken include:

a) Substantially Completed Projects as of June 2023

- i. **Kampala Sanitation Project (LVP II):** The Project is aimed at improving the sewerage and sanitation situation in Kampala and the surrounding areas. The key milestones included construction of the Nakivubo Waste Water Treatment Plant at Bugolobi (45,000m³/day), the Kinawataka Pre-treatment and Pumping Station, and the construction of Pumping Mains from Kinawataka Sewerage System to Nakivubo Sewerage System.
- ii. **Design and build of a Compact Sewerage Treatment Plant for Kiruddu Referral Hospital.** The project aims to improve Wastewater Management at Kiruddu Referral Hospital.

b) Projects at Procurement, Design, And Planning Stage (Inception)

Kampala Sanitation Project – Lake Victoria Protection III (LVP III): The Project is intended to improve the sanitation situation in Kampala Metropolitan and the surrounding Areas. It entails the expansion of Tertiary and Secondary Sewer Networks and the development of Gaba and Mukono Wastewater Treatment Systems. The project is still at the inception stage; pre-feasibility studies are ongoing.

Emptier trucks

NWSC has 9 emptier trucks, which are mainly used for servicing the Corporation’s sewerage wastewater treatment ponds to ensure continuous maintenance of the ponds. During the FY 2022/23, no new trucks were procured.

(vii) Construction of public toilets

NWSC constructed 21 new public toilets in Mpigi, Pader, Ibuje, Bushenyi, and Rukungiri. The total number of Public Toilets constructed by NWSC as of June 2023 stood at 187.

Table 68: Trend of construction of Public Toilets in large towns as of June 2023

Region / Area	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
New Public Toilets Constructed	0	0	0	5	11	20	93	22%
Total Number of Public Toilets Constructed	141	141	141	146	167	187	280	67%

The construction of public toilets in small towns is presented in Table 69.

Table 69: Construction of toilets in public places

Planned	Achieved	Implementing Agency	Remarks
5 gender segregated institutional lined VIP latrines in Kazo cluster, Karago TC, Lwemiyaga RGC, Bigando RGC, Nyakatonzi RGC	Kazo cluster at the design stage under WSSP III land is identified and in the acquisition process. Construction in Bigando and Nyakatonzi RGCs is complete, WHILE in Lwemiyaga RGC, construction is at 98% completion.	WSDF–Southwest	All the institutional toilets are 05 stances each and are gender segregated. Construction of institutional/public sanitary toilet facilities in Karago TC is planned for in phase 2
Develop 3 Town Sanitation Plans for Nyakashaka TC, Nabigasa TC and Kabura-Mwizi TC	Town Sanitation Plans for Nyakashaka, Nabigasa, and Kabura-Mwizi towns to be developed		Development of the Town Sanitation Plans scheduled for FY 2021/2022
Eight stance water-borne public toilets in the urban councils of Tirinyi, Luuka, Nakapipirit, Suan, Kibuku, Buwuni, Bulambuli, and Kachumbala	One public toilet in Bulangira completed	WSDF-East	All the institutional toilets are 8-stance each and are gender segregated.
29No. Public Sanitation Systems constructed in the Small Towns of Kayunga, Busana, Nakasongola, Bundobugyo, Buikwe, Kamuli, Kapchorwa, Kyenjojo, Katooke and Nakasongola	Construction of Public Sanitation Facilities was completed in Nakasongola, Kayunga, Busana, Kyenjojo, and Katooke.	STWSSP	Constriction of Sanitation Facilities in Buikwe, Kamuli, Bundibugyo, and Kapchorwa to be completed by the end of the FY 2023/2024.

(viii) Expansion of the Sewerage Pipe Network (Kms Laid)

During the FY 2022/23, 17 Km of new water mains were laid, representing 55% of the HCD PIAP target of 30 Km. The total sewer pipe network as of June 2023 was 762 Km. The total sewer pipe network grew by 2% from 744 Km in the FY 2021/22 to 762 Km in the period ending June 2023.

Table 70: Annual Trend of Sewer Mains (Km) (2018-2023)

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
New Sewer Mains Extensions	24	59	30	23	36	17	30	55%
Total Sewer Pipe Network	602	661	693	715	744	762	774	98%
Growth in Total Pipe Network	4%	10%	5%	3%	4%	2%		-

(ix) (Connection of new sewer customers to increase access to Sewerage Services

NWSC connected 237 new customers to the sewer network, representing 79% of the HCD PIAP target of 300 connections. The total number of sewer connections as of June 2023 stood at 28,703, comprising 25,062

(87%) active connections and 3,641 (13%) inactive connections. The total number of Sewer Connections grew by 2% from 28,007 connections in the FY 2021/22 to 28,703 ending June 2023.

Table 71: Status of Sewer Connections as of June 2023

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Target 2022/23	Target Perf.
New Sewer Connections	272	368	277	214	575	696	300	79%
Total Sewer Connections	21,616	22,606	23,914	25,180	28,007	28,703	24,514	117%
Active Sewer Connections	89%	90%	89%	89%	89%	87%	-	-!

(x) Social behavior change communication for use of sanitation facilities and hand washing with water in schools

During the implementation of the piped water supply and sanitation systems in the reporting period, more than 162 sensitization campaigns were conducted in the 9 RGCs to promote sanitation and hand washing facility usage. These campaigns were conducted through meetings at schools. The purpose was to increase enrollment and retention of learners in schools.

(xi) Sewerage /Wastewater treatment systems development/expansion targeting industrial parks

All the UIA Industrial Parks except Mbale Industrial Park fall outside the NWSC sewerage coverage area and are not being served by NWSC. The wastewater treatment facilities of NWSC are designed to receive Municipal waste; therefore, connection of industrial waste cannot be done. The respective industries are required to carry out wastewater pre-treatment.

(xii) Sensitize, and Monitor and Evaluate for Water Usage

The Ministry of Water and Environmental planned to develop a software tool/system for sanitation monitoring and evaluation. An M&E System is being developed. The system will be used for the Sensitization, Monitoring, and Evaluation starting next financial year.

(xiii) Sanitation master plans developed

The Sanitation Master Plan is being developed alongside the water supply master plan. This is being developed through the Strategic Towns Water and Sanitation Project, where the Central Uganda Master Plan was developed. By the reporting time, the Master Plan for Sanitation for the Central region was at 82% completion.

7.1.4.4 Key Emerging Issues

The following issues have been identified and should be addressed or explored for better sanitation and hygiene outcomes.

- i) Strengthening the faecal sludge management service chain with a focus on sustainable transportation, disposal/emptying, and reuse for rural and urban settings through Umbrellas of Water and Sanitation and private sector engagements.
- ii) Strengthening the sanitation legal framework through formulating the sanitation policy.
- iii) Demystifying the sanitation and hygiene measurement framework to establish a common understanding among all stakeholders will enhance programming and reporting.

7.1.5 RURAL SANITATION

7.1.5.1 Introduction

Sanitation and Hygiene are not only aligned to and pivotal to the achievement of SDG 6.2, which aims at achieving clean water and sanitation for all by 2030 but also resonate with various interconnected goals, contributing to broader societal and environmental well-being.

Programming for sanitation and hygiene in Uganda is guided by the Integrated Sanitation and Hygiene (ISH) financing strategy (2018-2030), which is hinged on the three pillars of Demand creation, Supply chain management, and Enabling Environment. In the bid to operationalize the ISH strategy, the government avails funds through the District Transitional Development Grant - Sanitation (Water and Environment) for the promotion of sanitation and hygiene in rural communities and the District Water and Sanitation Conditional Development Grant for WASH infrastructural development including construction of public sanitation facilities. The subsector also leverages funding from WASH projects implemented by the Ministry of Water and Environment through centrally managed projects at the national level as well as through Civil Society Organizations at the district level to carry out infrastructural and promotional activities in rural areas. Districts also use part of the Primary Health Care (PHC) Grant from the Ministry of Health for hygiene and sanitation promotion and health education.

Although many achievements have been registered through efforts by the Government and other partners towards the attainment of safe sanitation and hygiene, a lot of work remains in order to realize the SDG 6.2 target of having all Ugandans have access to safely managed sanitation by 2030.

7.1.5.2 Sanitation and Hygiene Indicators

(i) Access to Basic Sanitation

Basic sanitation is defined as the “percentage of the population using an improved sanitation facility not shared with other households.” It is computed as $(F/G) * 100$, *F denoting the total number of households with improved sanitation facilities not shared and the G-total number of households in the locality.*

Access to basic sanitation in rural areas increased to **26.9%** from 24% in the FY 2021/22. This increase was attributed to the increased uptake and implementation of market-based sanitation, which focuses on upgrading and construction of improved sanitation facilities.

Sanitation coverage, defined as the proportion of the population accessing any form of sanitation facility regardless of its quality, increased to 79.5% from 77% in FY 2021/22. This represents an increment of 2.5%. This implies that an additional 1.12 million Ugandans gained access to sanitation services in rural areas.

(ii) Safely Managed Sanitation

Safely managed sanitation is defined as the “percentage of the population using improved sanitation facilities not shared, where excreta is safely disposed in situ or transported and treated off-site.” It is computed as $\{(A+B+C)/D\} * 100$ *A denoting total household population disposing of safely insitu, B- total household population reported to have emptied and transported excreta by guppers/cesspool emptier, C- total household population using sanitation facilities connected to a sewer system, and D- total household population of District, i.e., RGCs and Sub-counties.*

The percentage of the rural population having access to safely managed sanitation increased to 9.8% from 9% in FY 2021/22. This was attributed to sanitation promotion approaches/concepts that focus on higher service levels. The relative increase in access to faecal sludge management services as a result of the construction of Faecal Sludge Treatment Plants (FSTPs) contributed to the safe disposal and treatment of faecal sludge from both rural areas.

(iii) Open Defecation

Open defecation is defined as the “percentage of the population practicing open defecation.” It is calculated as $(H/I) * 100$ *H, denoting the total number of people in households practicing open defecation, and I is the total household population in a District, i.e., RGCs and Sub-counties.*

During the period under review, the proportion of the rural population practicing open defecation slightly reduced to 20.5% from 23% in FY 2021/22.

(iv) Hand washing at the household level

Hand washing is measured as the “percentage of people with access to hand washing facilities,” and it is computed as $(M/N)*100$, M denoting the total number of households with hand washing facilities, and N is the total number of households in the locality.

In rural areas hand washing with soap increased by 0.2% from 35.8% in FY 2021/22 to 36% in FY 2022/23. This was attributed to the handwashing with soap campaign, which was run throughout the year, coupled with innovations around hand hygiene. More efforts are required to implement systematic, innovative, and sustained hand washing with soap campaigns that will culminate into actual behavioral change as opposed to short-lived campaigns based on disease outbreaks and epidemics.

(v) Trend of access to sanitation and hygiene facilities

Figure 35 presents the trend of sanitation and hygiene coverage over the past 5 years. It shows that access to sanitation and handwashing facilities has largely stagnated over the past 5 years. This calls for increased financing and deployment of innovative approaches to sanitation and hygiene promotion involving multiple stakeholders to bolster existing efforts and spur the sub-sector towards achieving universal access in line with national priorities and SGD 6.2 targets by 2030.

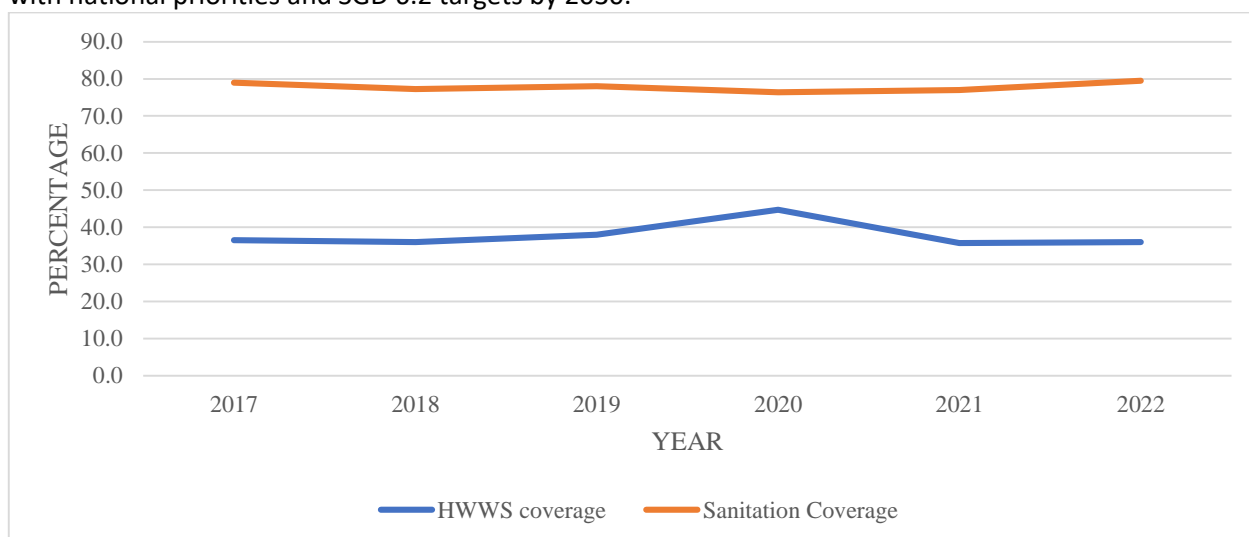


Figure 35: Trends of sanitation coverage and handwashing coverage over the past six years (2017-2022)

(vi) Sanitation coverage by region

Sanitation coverage (any form of sanitation) across the regions was fairly good, with the regions (Lango, Kigezi, Buganda, Toro, Ankole, and Busoga) having sanitation coverage above the national coverage of 79.5%. Special attention should be given to the regions of Karamoja, West Nile, Acholi, Bukedi, Teso, Elgon, South, Central, and Bunyoro, where the sanitation coverage was below the national coverage.

Basic sanitation coverage across the region was poor, with only two regions (North-Central and South-Central) having basic sanitation coverage above the national basic sanitation coverage of 26.9%. The majority of the regions (Karamoja, Lango, West Nile, Acholi, Kigezi, Bukedi, Teso, Bunyoro, Toro, Elgon, Busoga, and Ankole) have basic sanitation coverage below the national coverage. Kigezi had sanitation coverage (any form of sanitation) of over 90% but with a basic sanitation coverage of only 11.1%. Special efforts targeting the promotion of a higher level of service and investment in improved sanitation facilities should be directed to the Kigezi region since the population already appreciates the need for sanitation services.

(vii) Access to hand washing facilities by region

Access to hand washing facilities remains lower than sanitation coverage. This requires behavioral change messages that link hygiene and sanitation so as to maximize the health benefits of constructing and using

toilets. The majority of the regions (Teso, Bunyoro, Toro, North Central, Elgon, South-Central, Busoga, and Ankole) had access to handwashing facilities above the national coverage of 36%. Failure to wash hands at critical moments, like after toilet use, undermines the benefits of improved sanitation and exposes the population to an increased incidence of diarrhoeal and respiratory tract infections. Figure 36 depicts the regional coverage of sanitation and hand-washing facilities.

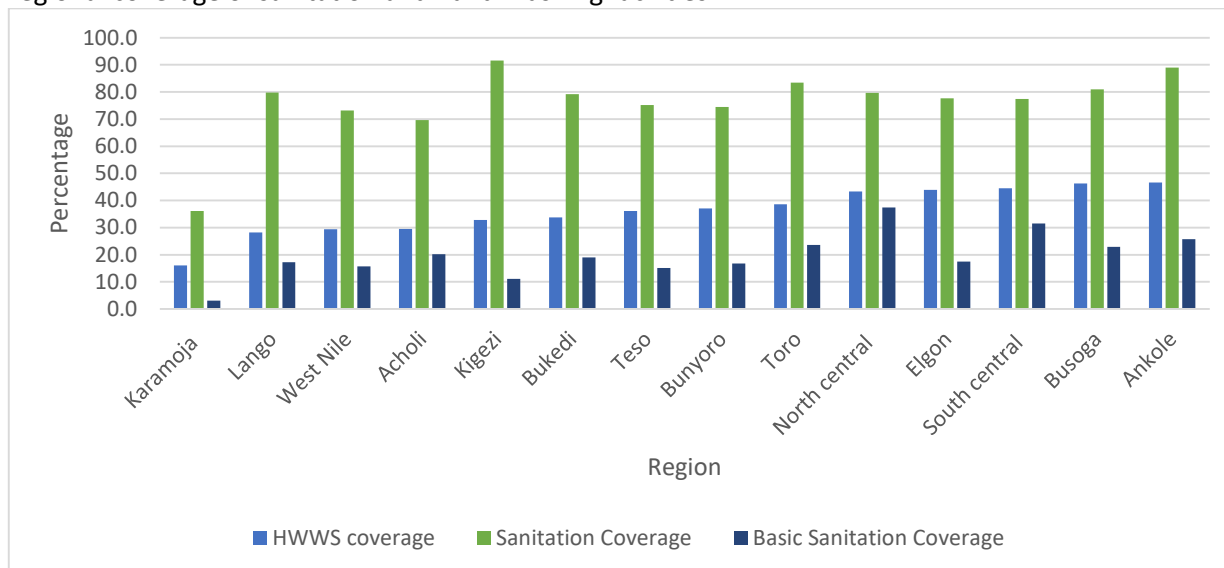


Figure 36: Regional performance in Sanitation coverage, Basic Sanitation, and Hand hygiene for the FY 2022/23

7.1.5.3 Sanitation and Hygiene Interventions

(i) District Water and Sanitation Conditional Grant-DWSCG

In FY 2022/23, an estimated UGX 10.2bn was spent on the construction of sanitation and hygiene facilities in the District Local Governments. 82 Public toilets were constructed in public places such as markets and trading centers. This translated into 410 stances serving a total population of approximately 16,400 people.

(ii) District Transitional Development Grant -Sanitation (Water and Environment)

The grant has been in existence for the last 13 years, with the government disbursing UGX 2 bn annually to a total of 135 districts in the FY 2022/23. At the inception of this fund, districts were receiving between UGX 21-23 million, but with the creation of new districts, this figure dwindled to approximately UGX. 14.8 million per district. Despite the dwindling funding, remarkable achievements have been realized since the introduction of the grant.

540 villages were reached in FY 2022/23 using the Community Led Total Sanitation (CLTS), Market-Based Sanitation, and Home Improvement Campaigns (HIC) approaches. Out of the 540 villages reached, 22 % (119 villages) became Open Defecation Free (ODF), an increment of 1% from the FY 21/22. Approximately, a total of 714,000 people gained access to household sanitation.

(iii) National Hand Washing Initiative (NHWI)

The National Hand Washing Initiative (NHWI) is a government-led initiative that was established by the National Sanitation Working Group in 2006 with the aim of championing the hand washing with soap agenda in Uganda. MWE currently hosts the NHWI secretariat, and the achievements recorded during the FY 2022/23 included the dissemination of the National Handwashing Communication Strategy at the national and regional levels and, the finalization and validation of the communication toolkit. The secretariat successfully organized the commemoration of Global Handwashing Day, which took place in Mbarara District in Bwizibwera Town Council under the theme: “Unite for Universal Hand Hygiene.”

The secretariat also conducted a media campaign dubbed “I Wash, You Wash; Clean Hands for All” in partnership with the private sector. The details are highlighted in the Case study below.

Public Private Partnership for Hand Washing: A case of the “I wash you wash campaign.”

The Hand Washing Initiative, whose secretariat is hosted at the Ministry of Water and Environment, conducted a campaign dubbed: **“I Wash, You Wash: Clean Hands for All” Campaign**. It was developed to instill and foster collective responsibility for improved hand hygiene through soap donations.

NHWI, with support from UNICEF, contracted Dreamline Products, a Social Behavioral Change private firm to develop the National Hand Washing Communication Tool Kit, in which the campaign was proposed.

The campaign targeted to improve hand washing in Karamoja by addressing a critical enabler for hand washing, which is soap. Karamoja region was identified because it is a region where the handwashing rate was lowest at 7.6%, significantly below the national average of 36.5%.

Methodology: The campaign involved demonstrating to the public that a simple act of donating soap specifically for the children in Karamoja could trigger a collective responsibility for everyone in the region to wash their hands with soap.

This innovative approach was staged at Quality Supermarket, where for every bar of soap purchased by a customer, an equivalent piece of soap was donated to schools in Karamoja. The response from shoppers was overwhelming, resulting in a substantial contribution of soap units. The initiative was joined by other private entities like Hariss International (Riham), Stanbic Bank, and the Rotary Club of Naalya. Hariss International added excitement to the campaign by donating soft drinks and snacks, Stanbic Bank covered the remaining soap costs, and the Rotary Club engaged its audience, fostering a shared commitment to the cause.

Outcome: The impact of the campaign was profound, collecting over 22,000 bars of soap, and influencing approximately 5,000 shoppers at Quality Supermarket outlets. Moreover, the campaign’s reach extended far beyond, engaging around 4,000,000 people through mass media and social media platforms. The private sector expressed appreciation for the initiative as it revealed an approach that would break the sense of fatalism and dependence – “everyone can do something to change the situation...” said Quality Supermarket Manager. This significant donation elevated hand hygiene standards and promoted overall health and sanitation practices among children in the region, narrowing the gap in handwashing rates.



Photo 7.5-1 Government officials receiving soap



Photo 7.5-2 Stakeholders at a media briefing

7.1.5.4 Key Emerging Issues

- i) Strengthening of the sanitation legal framework through the formulation of the sanitation policy
- ii) Need for capacity building of the Local governments to enter real-time data and adequately report on the indicators.
- iii) Demystifying the sanitation and hygiene measurement framework to establish a common understanding among all stakeholders to enhance programming, and reporting.

7.2 MWE CONTRIBUTION TO AGRO-INDUSTRIALISATION

7.2.1 WATER FOR PRODUCTION

7.2.1.1 Introduction

Water for Production (WfP) refers to the development and utilization of water resources for productive use in crop irrigation, livestock, aquaculture, industries, energy, and other commercial uses. Globally, Water for Production accounts for over 80% of water withdrawn for use. In Uganda, less than 2% of water is used in production. However, the demand is increasing primarily due to climate change and degradation of natural resources.

The mandate for WfP is shared between MWE and other Ministries. For water for Agricultural development, MWE is responsible for “off-farm” activities, and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) is responsible for “on-farm” activities. “Off-farm” refers to the development of water sources and transmission (bulk transfer to farm gates), and “on-farm” refers to irrigation infrastructure, water use, and management. Water for energy, MWE works with the Ministry of Energy and Mineral Development, Water for Industry, MWE produces water for the industrial premises, while the Ministry of Trade, Industry, and Cooperatives is responsible for water use and management in the industries.

Water for Production Department is one of the Implementing Agencies of the Agro-Industrialization Development Programme. This Programme contributes to the NDP III objective of enhancing value addition in key growth opportunities.

The goal of the Agro-Industrialization Programme is to Increase the commercialization and competitiveness of agricultural production and agro-processing. Its objectives are:

- 1) Increase agricultural production and productivity.
- 2) Improve post-harvest handling and storage.
- 3) Improve agro-processing and value addition.
- 4) Increase market access and competitiveness of agricultural products in domestic and international markets.
- 5) Increase the mobilization and equitable access and utilization of agricultural finance.
- 6) Strengthen the institutional coordination for improved service delivery.

The outcome indicators related to water for production are:

- Increase the cumulative water for production storage capacity (Mcm) from 39.3 cm³ to 76.82 cm³ by 2025.
- Increase area under formal irrigation (ha) from 5,147 Ha to 27,424 Ha by 2025.
- Increase the percentage of functional water for production facilities from 86.7% to 89.7%.

The interventions related to increased access to and use of water for agricultural production are:

- a) Complete the irrigation schemes under construction/rehabilitation, including; Doho Phase II, Mubuku Phase II, Wadelai, Tochi, and Olweny.
- b) Construct new irrigation schemes; Ngenge, Acomai, Atari, Amagoro, Nabigaga, Rwimi, Nyimur, Musambya, Kibimba, Kabuyanda, Matanda, Igogero, Angololo, Namatala, Namulu, Sipi, Unyama, Lumbuye, Palyec, Porongo, Lopei and Imyepi.
- c) Develop solar-powered small-scale irrigation systems for smallholder farmers outside conventional irrigation schemes.
- d) Develop infrastructure and services for bulk water storage and transfer, including water abstraction systems, transmission mains, water pumping systems, storage tanks, and water distribution networks.
- e) Promote water use efficiency in agricultural production.
- f) Complete the preparation of the National Irrigation Master Plan for Uganda.

7.2.1.2 Water for Production Outcome Indicators

(i) Cumulative Water for production storage capacity (Million cubic meters)

During the FY 2022/23, the cumulative Water for Production storage capacity increased from 52.48 million cubic meters in FY 2021/2022 to 52.60 million cubic meters. This increase was below the NDP III target for the FY 2022/23 of 57.52 million cubic meters. The underperformance was due to inadequate funding. At

the current rate progress, it is unlikely that the NDP III target of 76.82 million cubic meters will be achieved by 2025 unless funding is increased. There is need to increase funding to accelerate the rate of progress.

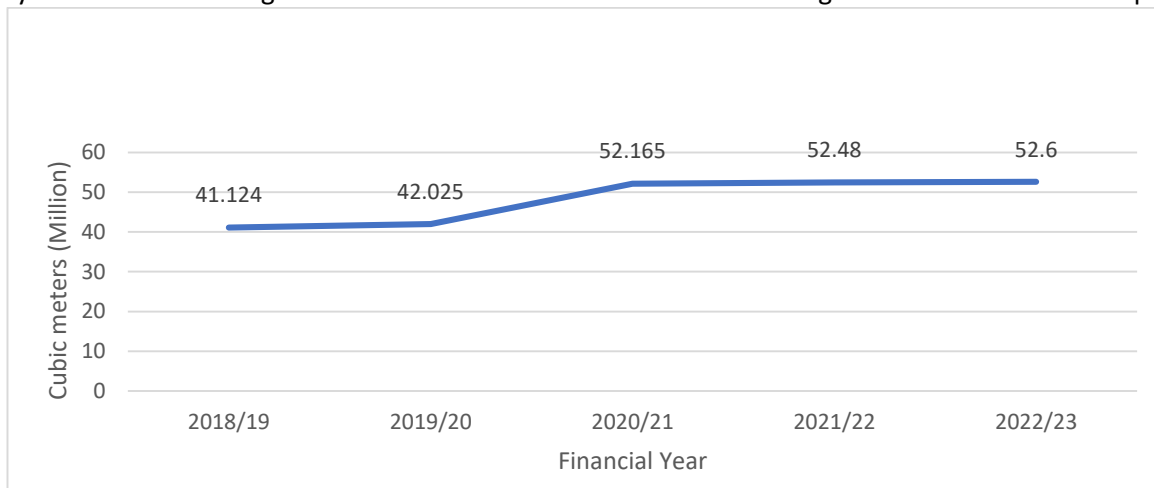


Figure 37: Cumulative WFP Storage Capacity created (Million cubic meters)

(ii) Area under formal irrigation (Ha)

In order to address the challenges of climate change and food insecurity across the country, the Ministry of Water and Environment constructed to completion medium and large-scale irrigation schemes across the country thereby increasing the land area under formal irrigation from 22,797 Ha in FY 2021/22 to 22,976 Ha in FY 2022/23. This increase was higher than the NDP III target for the FY 2022/23 of 20,200 Ha. At the current rate of implementation, it is likely that the NDPIII target of 27,424 Ha will be achieved by 2025.

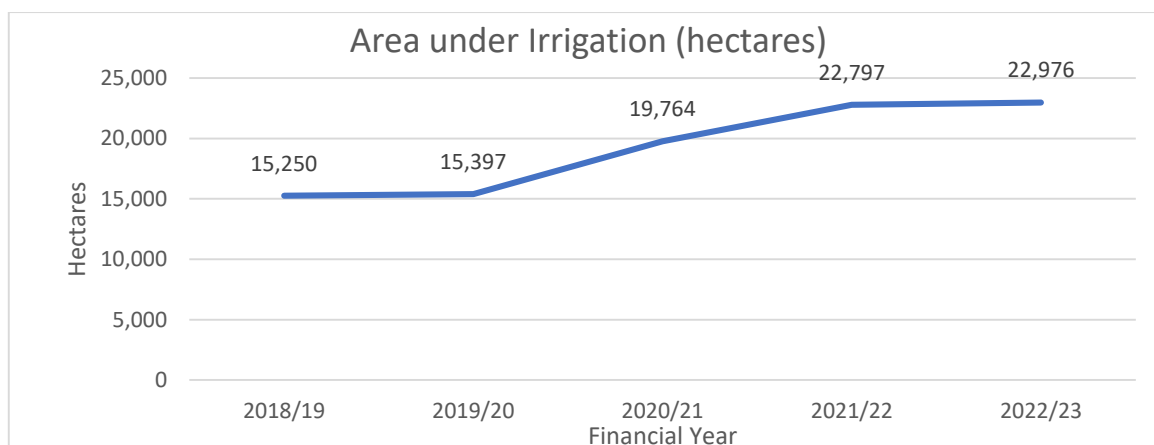


Figure 38: Area under Irrigation (hectares)

Some of the water for production infrastructure completed in the FY 2022/23 included:

- One Solar powered irrigation site in Central Region under Nexus Green Project.
- Five Solar powered Irrigation Demonstration Sites
- 13 Communal Valley tanks
- Three existing communal Valley Tanks were rehabilitated
- Livestock watering troughs for Two Valley Tanks in Abim District were also constructed.
- 27 Valley Tanks on Individual farms.
- One Set of Earth moving equipment unit supplied and delivery.



Photo 1: Kyenshama earth dam in Mbarara District under construction.



Photo 2: Cattle watering at Napeikar Valley Tank in Kotido District.

(iii) Percentage of functional water for production facilities

The functionality of Water for production facilities improved from **88%** in FY 2021/22 to **88.3%** in FY 2022/23. This was slightly lower than the NDP III target of 88.7% for the FY 2022/23. At this rate of progress, the NDP III target of 89.7% is likely to be achieved by 2025. Table 72 presents the trend of functionality of WfP facilities over the past 5 years.

Table 72: Trend of Functionality of WfP Facilities in the past 5 years

Financial Year (FY)	2018/19	2019/20	2020/21	2021/22	2022/23
Functionality of Facilities	86.7%	87.2%	87.8%	88%	88.3%

At the time of spot check, **88.3%** of the Water for Production facilities had functional Management Systems in place.

7.2.1.3 Water for Production Related Interventions

Table 73 presents the interventions, actions taken, target and achievements. It also provides the remarks on the performance.

Table 73: Progress of implementation of WfP related interventions as per NDP III/PIAP

Output/ Intervention	Action	Target	Achieved	Comment/Explanation
Completion of the irrigation schemes under construction/rehabilitation				
Doho Phase II, Mubuku Phase II, Wadelai, Tochi, Ngenge, Rwengaaju and Olweny completed	Complete construction of Wadelai irrigation scheme	1	0	Construction of Wadelai irrigation scheme in Pakwach District is at 89% cumulative progress. Land compensation issues delayed its completion.
Construction of new medium to large scale irrigation schemes.				
Acomai, Atari, Amagoro, Nabigaga, Rwimi, Nyimur, Musambya, Kibimba, Kabuyanda,	Construct 23 new irrigation schemes	-	-	Procurement completed for construction of Kabuyanda Irrigation scheme in Isingiro District. The site was handed over to the contractor, and he is mobilizing for works commencement.

Output/ Intervention	Action	Target	Achieved	Comment/Explanation
Matanda/Enengo, Igogero, Angololo, Kagera, Namatala, Namalu, Sipi, Unyama, Lumbuye, Nyabanja, Palyec, Purongo, Lopei and Imvepi irrigation schemes constructed.	Complete feasibility studies/ Preliminary designs for new irrigation schemes	10	0	Detailed designs are in the final stages for the following mega and large Irrigation schemes; Lopei (5,000 ha) in Napak, Namalu (2,200 ha) in Nakapiripirit, Unyama (2,000 ha) in Amuru and Gulu, Rwimi (2,000 ha) in Bunyangabu and Kasese, Amagoro (5,000 ha) in Tororo, Enengo (2,500 ha) in Rukungiri and Kanungu, Imvipe (2,500 ha) in Arua, Mpanga (1,500 hectares) in Kamwenge and Kyenjojo Districts, Nyamugasani (1,750 ha) in Kasese and Palyec (2,000 ha) in Nwoya. Inadequate release of funds and COVID-19 restrictions affected planned progress.
	Complete detailed designs for new irrigation schemes	2	0	Detailed designs for Matanda (3,000 Ha) and Nsonge Irrigation schemes (1,800 Ha) in the Districts of Kanungu and Bunyangabu respectively, are in advanced stages.
	Establish O&M and institutional management structures	-	2	Revitalized Two Irrigation Water User Associations (IWUA) for Agoro and Doho I Irrigation schemes in Lamwo and Butaleja Districts respectively.
Rehabilitate and /or expand existing irrigation schemes				
Establish and support sustainable management institutions for effective utilization of the Irrigation schemes	Establish O&M and institutional management structures	6	6	Conducted trainings and capacity building to the established O&M Institutional Management Structures for six Irrigation Schemes of Wadelai, Ngenge, Tochi, Mubuku II, Doho II and Olweny in the Districts of Pakwach, Kween, Oyam, Kasese and Butaleja respectively.
Development of micro and small-scale irrigation systems for small holder farmers outside conventional irrigation schemes.				
Solar-powered water supply and small-scale irrigation systems developed.	Construct small scale solar powered water supply irrigation systems	100	6	Completed construction of one solar powered irrigation site in the Central Region. However, works are still ongoing for the construction of more solar powered irrigation sites. Completed 76 water supply and/ or irrigation sites under NEXUS Green Project.
				Completed construction of five solar powered Irrigation Demonstration Sites in the Districts of Katakwi, Serere, Napak, Abim and Hoima. These have increased the irrigational area.
				Works are still ongoing at various stages of progress for the

Output/ Intervention	Action	Target	Achieved	Comment/Explanation
				construction of 28 Solar Powered Irrigation Demonstration Sites in the Districts of Kyankwanzi, Nakaseke, Kanungu, Kabarole, Kyenjojo, Lwengo, Isingiro, Mbarara, Rwampara, Kisoro, Bushenyi, Kiruhura, Sembabule, Buhweju, Mitooma, Bunyangabu, Agago, Kole, Adjumani, Apac, Omoro and Gulu.
Establish sustainable management institutions for effective utilization of the Irrigation schemes	Establish O&M and institutional management structures for solar powered small scale irrigation systems	40	6	Irrigation and Water Management Associations were established for the completed six Solar Powered Irrigation Demonstration sites. The establishment of more O&M institutions for the construction of solar-powered irrigation schemes is ongoing.
Develop infrastructure and services for bulk water storage and transfer, including water abstraction systems, transmission mains, water pumping systems, storage tanks, water distribution networks				
Construction of new multi-purpose water development schemes of; Kyenshama Geregere, Ojama Makokwa, Kyahi, Kakingole, Kokonyuko, Korisae Lothar, Girik, Komothing, Achorichori, Katabok, Kulodwongo, Katabok, Kaputh, Longore, Naoyamuwe, and Kokyeyo. Lemsui, Nakonyen and Nangololapolon	Develop feasibility studies/ Preliminary designs	6	0	Feasibility studies and preliminary designs are being undertaken for six multi-purpose earth dams in the Districts of Abim, Kaabong, Karenga, and Kotido. Procurement to undertake feasibility studies and design of Drought response and Flood mitigation interventions for Bundibugyo and Ntoroko Districts is ongoing (Initiation stage).
	Prepare detailed design of dams	2	0	Design of the Kyemamba earth dam in Lyantonde District to provide water for multipurpose uses is in the final stages of completion. Design of Ngugo Phase II water scheme in Rwampara District to provide water for multi-purpose uses is in the final stages. Design of Kanyehunde multipurpose dam in Ntungamo District and Nombe Dam in Mbarara District have not yet commenced.
	Construct 23 dams	1	0	Construction of Kyenshama earth dam in Mbarara District is at 85% physical progress. Procurement for construction of Geregere earth dam in Agago District is ongoing.
Dams and Valley tanks for livestock watering constructed	Equipment for construction of Valley tanks for livestock watering procured	1	1	One (1) Set of Earth moving equipment unit supplied and delivery.

Output/ Intervention	Action	Target	Achieved	Comment/Explanation	
	Community valley tanks for livestock watering constructed	116	16	<p>Constructed 13 Communal Valley tanks in the Districts of Kyankwanzi, Luweero, Kiboga, Katakwi, Kalaki, Masindi, Karenga, Kotido, Abim, and Amudat to increase the cumulative water for production storage.</p> <p>Additionally, three existing communal Valley Tanks were rehabilitated in the Districts of Napak, Kotido, and Karenga in Karamoja Sub-region using MWE equipment unit. This restored water for livestock.</p> <p>Livestock watering troughs for two Valley Tanks in Abim District were also constructed. This restored their functionality.</p> <p>Works are still ongoing at varying stages of completion for 14 Communal Valley Tanks in the Districts of Masindi, Nakasongola, Gomba, Nakasongola, Nakaseke, Masindi, Gomba, Luweero, Kalungu, Ntungamo, Ntoroko, Kyotera and Kamwenge. These will provide water for livestock watering.</p>	
	Individual valley tanks for livestock watering constructed	200	27	<p>Constructed 27 Valley Tanks on Individual farms in the Districts of Isingiro, Ntungamo, Sembabule, Nakasongola, Nakaseke, Gomba, Bukomansimbi, Ibanda and Kiruhura, Kyankwanzi, Luweero, Kiboga and Masindi.</p> <p>Construction of more Valley Tanks on Individual farms awaits demand from farmers and repair of the existing Ministry construction equipment.</p>	
	Establishment of management structures for multi-purpose bulk water schemes	Establish management of structures for multi-purpose bulk water schemes	2	2	Established Operation and Maintenance institutional management structures for Olweny and Agoro Irrigation scheme in Lira and Lamwo Districts, respectively.
	Water facilities for industrial, tourism and other commercial uses developed	Construct water facilities for industrial, tourism and other commercial uses	1	0	The design for provision of water for oil in Kabaale industrial park in Hoima District is in advanced stages.
Complete the preparation of the National Irrigation Master Plan for Uganda					
National Irrigation Master Plan finalized	Finalize the preparation of	1	0	Formulation of a National Irrigation Masterplan for Uganda is at 30%	

Output/ Intervention	Action	Target	Achieved	Comment/Explanation
	National Irrigation Master Plan			progress (Draft Interim Study Report One was submitted and approved).
Water for Production Design manual completed	Finalize the preparation of Water for Production Design Manual	1	0	Preparation of design manual for Water for Production infrastructure is at 80% progress (All the six Volumes of the Draft design manual are under review).



Photo 7.2-1: A well protected Loho Valley Tank in Kacheri Sub-county, Kotido District



Photo 7.2-2: Installation of sluice gate at cross regulator 1 at Wadelai Irrigation scheme in Pakwach District

Increase capacity to provide water for livestock among farming communities

MWE has 16 sets of construction equipment distributed in the regions of North, West, East, Central and Karamoja. However, most of these sets have worn out and need major repairs. 27 Valley Tanks were constructed on individual farmers' land in the FY 2022/23, bringing the total to 1328 valley tanks to date that have been constructed on individual farms under the Public Private Partnership Arrangement.

Promote the efficient use of water for agricultural production

To ensure sustainability, boost the management and effective use of WfP facilities, the department continues to employ the Farmer Field Schools (FFS) Approach that includes; (i) Strengthening knowledge and capacities for climate change adaptation, (ii) Strengthening skills in operation, maintenance, and management of water for production facilities at the communal and individual level, (iii) Better access of livestock and crops to water through training in water management, (iv) Resilience of livestock and crop production systems in the cattle corridor improved, (v) Established, trained and integrated FFS with community-based water management system on sustainability, operation and maintenance of water for production facilities, (vi) Saving and marketing, (vii) Integrated and modern agricultural practices (vi) Strengthen collaboration, monitoring, supervision, and networks among the farmers within FFS.



Photo7.2.-3: Farmer harvesting Onions at Solar Powered Irrigation scheme in Omoro District. Photo7.2-4: Valley Tank in Kapelebyong District



CHAPTER 8

CONTRIBUTION OF CSO TO THE NRECCLWM PROGRAMME

8.1 ENVIRONMENT AND NATURAL RESOURCES CIVIL SOCIETY ORGANIZATIONS

8.1.1 Reporting by ENR CSOs

A total of 29 members of the Environment and Natural Resources Civil Society Network provided information for this report out of the membership of 78 registered members. These were fewer than the 32 members who provided reports in FY 2021/22. This reduction was attributed to a loss in funding opportunities arising from post-COVID effects, the Russia-Ukraine war, and general financial instability across the world.

In terms of regional distribution, ENR CSOs worked mostly in Central Uganda (29.17%), followed by the Albert Region (20.8%). Karamoja had the lowest percentage (6.94%), yet major environmental and natural resource challenges.

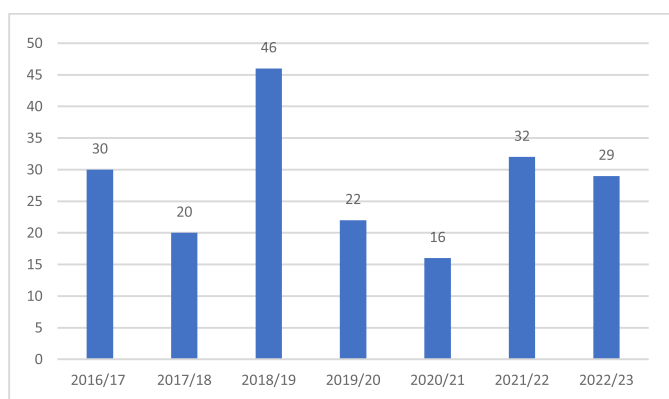


Figure 39: ENR CSOs reporting

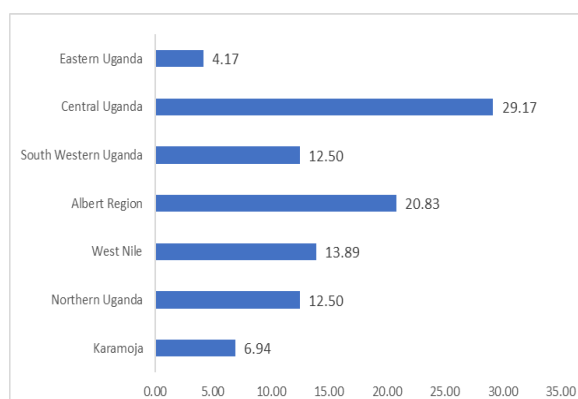


Figure 40: Percentage of ENR CSOs responding in the region

8.1.2 Financial Contribution of ENR CSOs to NRECCLWM Programme

The contribution of ENR CSOs more than doubled from USD 2,860,836 in FY 2021/22 to USD 4,208,666. Figure 41 depicts the trend of ENR CSOs' contribution to the program. For the past three years, the contribution has been increasing.

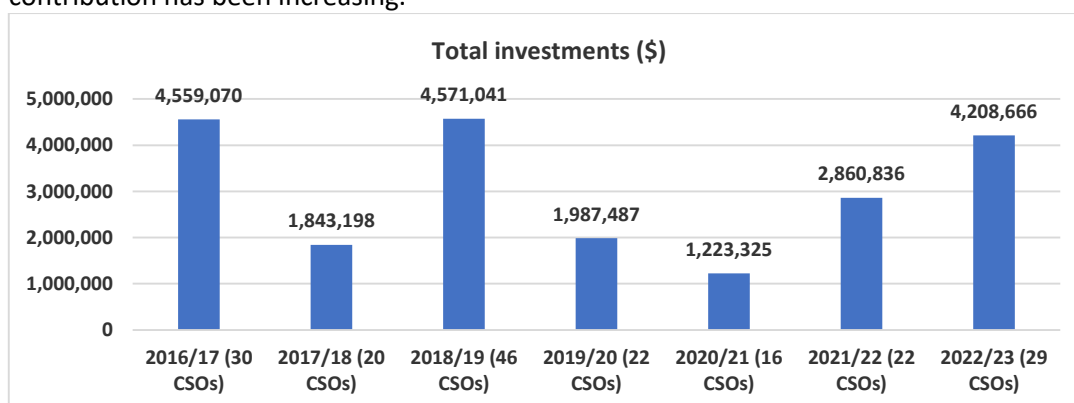


Figure 41: Investment made in the Financial Year.

Table 74: ENR Sub sector investment.

Thematic area	FY 2022/23		FY 2021/22	
	Amount (USD)	Percentage (%)	Amount (USD)	Percentage (%)
Forestry	3,190,559	75.81	923,340	32.28
Environment	152,200	3.62	192,078	6.71
Wetlands	142,336	3.38	16,700	0.58
Climate	600,557	14.27	1,300,300	45.45
Governance	90,014	2.14	100,014	3.50
Water mgt	25,000	0.59	94,458	3.30
Energy	5,000	0.12	95,946	3.35
Land Management	3,000	0.07	138,000	4.82
Total	4,208,666	100	2,860,836	100

Table 74 shows **the distribution of investment across the various thematic areas**. The biggest proportion of the investments (75.81%) was in Forestry and Climate Change (14.27%) related programs. Substantial resources were invested in Environment and Governance thematic areas. A comparative analysis shows a shift of investment from climate change, which was the largest (45.45%) in FY 2021/23 to forestry (75.81%) in FY 2022/23. However, these are complementary programs and which is funded more does not matter.

The network embarked on the mobilization of resources for enhanced functionality of the network: enhancing the governance and regulatory mechanisms, increasing the membership base, improving publicity and visibility, strengthening the network's collaboration with strategic partners, and enhancing reporting and fulfillment of the network's reporting obligations. The progress towards programmatic objectives is presented in the subsequent subsections

8.1.3 Contribution of ENR CSOs to the NRECCLWM Program

8.1.3.1 Assure the availability of adequate and reliable quality freshwater resources for all uses

ENR CSOs partnered with the Government of Uganda to implement development programs. ENR CSOs partnered with the Water Resources Management Department (MWE) to implement the following projects and programs.

- a) **ACODE, CAN-U, FMNR Network, JESE, and Tree Talk Plus**, in partnership with the Ministry of Water and Environment and other stakeholders, participated in the 6th Annual Water and Environment Week, particularly walking over 350 km from Kingfisher (Albertine Graben) to MWE Headquarters, which took place from 12th – 17th March 2023. They also participated in a week-long conference to commemorate the Water and Environment Week. This was a major drive towards adequate and reliable quality freshwater resources.



Photo 8.1-1: A newsletter depicting participation in the event

b) IUCN continued supporting catchment management planning and Implementation of the Greater Kampala Commercial Flower Farm Integrated Catchment Management Partnership (CFF-ICMP) and Gulu Integrated Catchment Management Partnership Under the GIZ NaTuReS Programme.

c) IUCN continued supporting communities in Aswa II Sub Catchment to Implement Priority Catchment Management Measures including the restoration of degraded stretches of riverbanks through the use of catchment management measures. It included demarcation and restoration of degraded wetlands to perform their ecological and socio-economic functions.

d) WWF Uganda Country Office continued supporting the Catchment Protection of the Nyamwamba Catchment, Protection of the Awoja Source, Protection of Enyau Water Source, and Protection of Rwizi River Catchment.

8.1.3.2 Increase Forest, tree, and wetland coverage and restore and protect hilly and mountainous areas and rangelands

Catholic Relief Services, together with CARE International in Uganda, World Vision, World Agroforestry Center (ICRAF), Caritas, and Uganda Land Care Network, rolled out the Restore Africa Project in Uganda, which will take 5 years to establish 25 million trees, working in 36 districts. These are intended to sink 25 million tons of carbon equivalent. In addition, it will engage 352,500 households in parts of Mt. Elgon districts, areas around the Rwenzori region, central Uganda, as well as the Albertine Graben districts. The project will plant, grow, and protect trees (80% Indigenous and 20% Exotic), which are supposed to grow as green infrastructure for carbon sinks and generation of carbon credits for sale. In its first year of operation, the project has set up project implementation structures, built necessary capacity, created awareness among the communities, carried out community engagement, and identified nurseries that will provide seedlings and extension services delivery.

Table 75: Contribution of each Implementing Partner in the Restore Africa Project

Implementing Partner	Land in hectares (Ha)	# Trees	# HHs	% Targets per partner
Caritas Tororo	65,000	2,925,000	40,915	12%
Caritas Moroto	34,000	1,530,000	21,402	6%
Caritas Hoima	38,000	1,710,000	23,920	7%
Caritas Fort Portal	47,000	2,115,000	29,585	8%
World Vision Uganda	152,000	6,840,000	95,679	27%
Care International Uganda	135,000	6,075,000	84,978	24%
Uganda Landcare Network	89,000	4,005,000	56,022	16%
Totals	560,000	25,000,000	352,500	100%

Environmental Alert implemented a GCF project in partnership with the Ministry of Water and Environment titled “Building Resilient Communities, Wetland Ecosystems, and Associated Catchments in Uganda,” project where 1,205 hectares of the degraded catchment area of Kidubule- Ibamba wetland ecosystem, Katerera Sub County, Rubirizi district was restored through tree planting. EA also conducted community engagements through which sensitization on wetland ecosystem management and training on Sustainable

Land Use Management, Gender, and Natural Resource Management were done, and community resource management committees were established. In addition to this, **2 915 m of trenches** along the catchment on Nyamabare Hill, adjacent to the wetland, and **two (2) gabions** were constructed to reduce the speed of flooding water and capture sediments. A total of 661 people were trained, and 650 households were reached with the project.

The **Uganda Biodiversity Fund** developed and implemented restoration plans for Mt Kei and Bugoma Central Forest Reserves. It consequently carried out enrichment planting and assisted natural regeneration in **424 hectares of Bugoma and Mt. Kei Forest Reserves**. It also undertook restoration in the Terego, Yumbe, Karenga, Kaabong, and Agago districts of woodlands equivalent to **754.42 ha**. It has established **woodlots** equivalent to **417.8 ha** in Terego, Kikuube, Yumbe, Kaabong, Karenga, and Agago districts and put **85 ha** of land in West Nile under agroforestry. It has equipped **29 staff** of the National Forestry Authority and District with Forest Monitoring gadgets, **25 National Forestry Authority staff** trained in law enforcement, and trained **633** (Male 477, Female 156) farmers in Agago, Kaabong, Karenga, Yumbe and Terego on woodlot establishment and management.

On wetland management, the **Uganda Biodiversity Fund** has opened and marked **39 km** of wetlands and riverine boundaries in Kamwenge and Kyegegwa districts and has engaged communities to rehabilitate **415 ha** of wetlands and riverbanks undergoing restoration activities in the Mid-Albertine rift valley and West Nile.

The **Ecological Trends Alliance** established and managed 1 community plant nursery near Bugoma Forest Reserve and equipped and supported **4 Collaborative Forest Management groups** around Wambabya and Bugoma Forest to strengthen their capacity to protect the forest. Initiated the negotiation of the **Memorandum of Understanding** to manage the Itohya Local Forest Reserve and supported the development of a **Bugoma – Budongo Landscape Wildfire Management Strategy**. It built the capacity of stakeholders around the Bundongo-Bugoma landscape in community eco-tourism and constructed **5 incinerators** for non-biodegradable plastics in Kaseeta. A lot of its efforts are concentrated in the Bugoma landscape, which is why it **trained 3 Bugoma Forest Adjacent Communities** in making and using fuel-efficient stoves, with 50 stoves constructed so far.

The **Anti-Corruption Coalition Uganda (ACCU)** supported the establishment of a toll-free line and call Centre at National Forestry Authority. It supported the engagements between duty bearers and citizens both at the local level and National level. It also sensitized stakeholders in the environment and natural resource laws, specifically NTPA, Local Government Act, UWA Act, etc. It conducted a scoping study on the assessment of the World-Wide Fund – Uganda Country Office supported transparency and accountability mechanisms at the National Forestry Authority and Uganda Wildlife Authority. It conducts Capacity Needs Assessment for ENR CSOs on Advocacy and Documentation on top of building the capacity of CSO staff and CFM groups in advocacy and documentation in the ENR sector.

Albertine Rift Conservation Society (ARCOS) strengthened the capacities of key Eco-School stakeholders to continue Eco-School activities after phasing out of the project. It supported national and district Eco school networks to continue Eco-School activities after the program phaseout. This was carried out in the districts of Busia, Wakiso, Kampala, Mbarara, Sheema, Bushenyi, and Isingiro. The implementation of the Eco-Schools program is often carried out by non-governmental organizations (NGOs), educational institutions, and government agencies that specialize in environmental and educational initiatives. These organizations and institutions work with schools to establish and run Eco-school programs, providing resources, guidance, and support to facilitate environmental education and sustainable practices.

The **WWF-Uganda Country office** has continued with the implementation of 4 projects, namely 1) Resilience for People and Biodiversity, 2) African FLR leadership initiative, 3) The Natural Forest Regeneration for Enhanced Carbon Stocks (FRECAR) project, and 4) Restoration of the buffer zones of the Rwenzori Mountains National Park. These were a result of a study undertaken in 2020 on forest stocks, product technologies, and market value chains in the Greater Virunga and Semliki-Albertine Landscapes. The projects focused on

economic and social priorities that can result in the degradation of the natural ecosystem and undermine the long-term resilience of people and their livelihoods.

Regenerate Africa organized a multi-stakeholder dialogue on “**Population dynamics, health, and climate connection.**” bridging the gap and building solutions together is a win-win for people, climate, and the planet, in March 2023. Over **215 participants** (132 physical and 83 virtual participants), attended the multi-stakeholder dialogue, which was presided over by First Deputy Prime Minister and Minister for East African Community, Hon. Rebecca Alitwala Kadaga. The outcome of the meeting was the development of the Gender and Climate Strategy, which aligns COP 15 and COP 27 decisions and actions towards Gender Action Plans that integrate Sexual Reproductive Health/Family Planning.

Regenerate Africa distributed 4,000 tree seedlings, mainly of indigenous tree species (*Maesopsis eminii* or Musizi), to model households, individuals, health facilities, Beach Management Units, schools, and organized groups for planting in the villages of Musomoko, Gaba, Nalumuli, Zitwe and Bulinyi in Ssi-Bukunja sub-county, in Buikwe district. It established and managed a nursery of over 10,000 seedlings (with a focus on indigenous trees) at the Great Outdoors, Kalanamu. This was launched on the **Kalanamu Heroes' Marathon-9th June 2023 under the theme 'Our Trees, Our Heroes'**.

Environment Alert held 4 community /farmers' awareness meetings in the Rubirizi district that attracted **160 participants (57 female, 103 males)** and were trained on the importance of tree planting and the values of various tree types. It also held a national dialogue on emerging issues in the forest sector, especially the **ban on timber trade**. The dialogue attracted **85 participants (50 males, 35 females)** who requested the government to explain/interpret the presidential directive on the ban of timber trade but also provide direction to traders. Coupled with that is the assessment of **biodiversity mainstreaming** in agriculture and other relevant policies to ascertain the level of biodiversity integration in the policies.

EMLI-Bwaise Facility conducted an awareness-raising workshop for the 10-Year Environment Restoration Plan on 3 March 2023 at Kampala Kolping Hotel. It was attended by 47 participants (27 males and 20 females), including civil society organizations and Government Ministries, Departments, and Agencies, among others. The meeting consequently produced a brief on fostering ecosystem restoration in Uganda.

Kitara Civil Society Organisations Network (KCSO) procured and distributed over **100,000 tree seedlings to plant about 90 hectares** of private woodlots by communities living around the Bugoma – Kagombe landscape. It also trained over **202 farmers and schools** on woodlot establishment and management. The training used a music and drama approach but also worked with change agents. They conducted training on climate-smart agriculture for about 7,500 farmers around Bugoma – Kagombe Landscape.

The ENR CSOs organized under the **Farmer Managed Natural Regeneration (FMNR) Network, led by Tree Talk Plus**, are increasing the adoption of the FMNR Model in Uganda. Their achievements were as follows:

- i. The members have undertaken FMNR-based regeneration in the **Karamoja, Mt. Elgon, the Albertine, the Rwenzori n, Acholi**, and Central regions. FMNR Network members conducted capacity building in refuge settlements in **Rwemwanja, Kyaka II, Kyangwali, Nakivale**, and West Nile.

- ii. World Vision solicited funding opportunities with both local partners and international NGOs.
- iii. FMNR is one of the implementation approaches of the **Restore Africa Project**, implemented in **36 districts**, where farmers register trees as green infrastructure for carbon credits that will be sold as carbon.
- iv. The Network developed and distributed **3 thematic newsletters** on FMNR practice based on local examples to stimulate the uptake of the model in Uganda.
- v. Continued managing the **3 FMNR Plots** for farmers to learn from income generation activities like bee-keeping.

ENR CSOs shown in Table 75 raised nurseries and supported the planting of seedlings in various parts of the country and trees on farms to increase the sequestration of carbon and improve tree densities on the farm and in communities. Trees planted included *Miltia exelsa*, *Maesopsis eminii*, *Terminalia superba*, *Albizia chinensis*, *Melia volukensii*, *Syzygium cordatum*, *Grevillea robusta*, *Podocarpus usambarensis*, *Gmelina arborea*, *Eucalyptus grandis*, *Cordia Africana*, *Ficus natalensis*, *Ficus benjamina*, *Spathodea companulata*, *Aleurites moluccanus*, and fruit trees, among others.

These trees have been used for improving soil conservation structures, as a contribution to the **fulfillment of the Bonn Challenge**, the **African Forest Landscape Restoration Initiative**, the **ROOTs Tree Planting Campaign**, the **Save the Environment program of Buganda Kingdom**, the **Uganda Water and Environment Week**, and **individual planting on boundaries, trees on the farm, as shade trees for crops such as coffee, vanilla, and cocoa, on bare hills and landscapes, and around wetlands to protect water sources**. A **survival rate of 80% is estimated** for the trees planted.

8.1.3.2 Strengthen land use and management

Uganda National Farmers Federation (UNFFE) held the First National Farmers Summit in Kampala in April 2023 at the Imperial Royale Hotel. The summit was attended by farmer leaders from UNFFE member organizations across the country, development partners, officials from Ministries, Departments, and Agencies of Government, CSO representatives, Scientists, and the Media fraternity. The meeting focused on presenting major policy issues emerging from different District Farmers Associations (DFAs) and further engaging different stakeholders. Major policy issues presented aimed at **strengthening land use and management** inclusive of agricultural value

Table 76: Tree seedlings per organization

Organization	Tree seedlings planted	Approximated area in Ha.
Tree Talk Plus	501,660	181.5
Regenerate Africa	116,000	104.4
Tree Adoption Uganda	106,000	95.4
Kaliro Environment Conservation Project planted	102,500	92.2
Environment Alert	60,000	27
Sheema District Famers Association	30,000	27
Youth Environments Services, Namayingo District	420,000	378

chains, unsafe use of agrochemicals, the unprecedented destruction of the natural environment, biodiversity conservation, the farmers’ role in the implementation of the Parish Development Model, and positioning farmers to harness the opportunities under the Agricultural Cluster Development Project.

8.1.3.3: Maintain and/or restore a clean, healthy, and productive environment

ENRCSOs led by Environment Alert installed two medical waste incinerators in **Kyegegwa** (at Mpara Health Centre) and **Kasese** (at Mahango Heath Centre) districts. They held 4 local radio talk show and two national radio talk show on increased energy access and sustainable natural resource use, reaching out to about 5 million people. About **5,000 Information, Education, and Communication materials** were developed and translated into four local languages on sustainable use of resources, COVID-19 prevention, and sanitation (use of toilets, among others). **Eight community awareness-raising campaigns** in four districts of Kasese, Kyegegwa, Kikuube, and Kibaale on renewable energy use, access, and environmental conservation were held.

ENR CSOs and the Civil Society Coalition for Oil and Gas (CSCO) contested issues regarding the violation of human and environmental rights relating to the construction **of the East African Crude Oil Pipeline**. The EU Parliament passed a resolution on the violation of human rights, environmental insensitivity, halting extractive activities, and considering alternatives to EACOP. The government of Uganda asserts that the

views expressed by ENR CSOs and the Civil Society Coalition on Oil and Gas (CSCO) are a distortion, speculative fears, diversionary, and baseless. These include the Environmental and Social Impact Assessment (ESIA), proposed mitigation measures, adequate and fair compensation of the Project Affected Persons (PAPs), human rights violations, and costs related to the construction of EACOP. The President has, however, committed to oil coming out in 2025. Total Energies and CNOOC are evaluating the environmental impacts and implications of the Final Investment Decision and the implications of the contractual decision.

Environment Alert installed two (2) solar systems in the two (2) health centers of Maisuka HCIII (Kibaale district) and Kasonga HC III, trained 44 youth, including medical staff, on maintenance and operation procedures of solar systems, provided medical equipment among other. The health center received **17 solar panels** that are providing power to support the health center. The introduction of solar power has been a game changer; critical examinations for diseases like malaria are now possible because key machines like the microscope are now fully operational. Previously, 95% of our clients were women, but now a substantial proportion of men also come for treatment. For the rural community of the Kyakahazire sub-county in the Kibaale district, it's amazing to see how the simple introduction of solar power is getting the men to take the right steps.



Photo 8.1.2: A hybrid solar system installed at Kyakahazire sub-county.



Photo 8.2.2: Solar panels on top of the Kyakahazire sub-county.

The Uganda Biodiversity Fund: 32 staff of Local Government, civil society, and the private sector were trained on climate change and environmental degradation. Consequently, the said staff sensitized 314 community members (264 males, 50 females) in Agago, Kaabong, and Karenga on Biodiversity Conservation and Environmental management practices.

8.1.3.4 Promote inclusive climate resilient and low emissions development at all levels

ENR CSOs led by Environment Management for Livelihood Improvement – Bwaise Facility conducted training of 31 (9 females and 22 males) District Local Governments and selected CSOs in climate change mainstreaming, Climate Disaster Risk Screening (CDRS), and action planning. The training created a linkage between the District Climate Change Action Plans (DCCAPs) and the Climate Disaster Risk Screening Tool. The training raised a need to integrate indigenous knowledge in DCCAPs to complement scientific research.

ENR CSOs led by Environment Management for Livelihood Improvement – Bwaise Facility developed a brief on potential tax revenues from carbon pricing in Uganda. This was during the Uganda Water and Environment Week, bringing together 40 participants (25 males and 15 females), including practitioners and actors representing Ministries, Departments and Agencies, Civil Society Organizations, Academia, Media, and the Private Sector. Also distributed as part of the dissemination work, are 300 copies of the information sheet on AFOLU-related commitments in the updated NDC to selected DLGs and CSOs.

Together with **CANU and ENR CSOs, EMLI Bwaise Facility** convened 82 (56 males and 26 females) participants for an awareness-raising workshop on the Paris Agreement at Hotel Africana, Kampala, and reiterated the need to fast-track the regulations and guidelines for carbon mechanisms, the need to invest

a lot in Article 12 on Climate change education, training, public awareness, public participation and public access to information enhancement and the need for the Climate Change Department to quantify how much carbon is sequestered by Uganda annually to track progress towards Paris Agreement. Implementation.

EMLI Bwaise Facility, together with **ENR CSOs and CANU**, convened a **Climate Science Policy Dialogue** at Makerere University under the theme: “Climate Change Knowledge Brokering”. It was attended by 66 (41 males and 25 females) participants representing: the Parliament of Uganda, Ministry of Water and Environment/Climate Change Department, Climate Finance Unit/Ministry of Finance Planning and Economic Development, Civil Society Organizations, Makerere University, and Media, among others. They also convened a **round table dialogue on NbS and Climate change** at Kyangabi Crater Resort in Rubirizi. It was attended by 49 participants (32 males and 17 females) representing District Natural Resource Officers from Kasese, Rubirizi, Kisoro, and Mitooma, Government MDAs, Civil Society Organizations, and Media.

As part of awareness raising, they developed a brief on Nature-based Solutions and rights for Kisoro and Mitooma districts, advocacy plans for Kisoro and Rubirizi districts, and surveyed to assess the effectiveness of district committees responsible for climate change in the districts of Kasese, Mitooma, Rubirizi, and Kisoro. The outcome of the meetings was the expressed need to create both science and non-science audiences for research to assimilate and take it for their use and practice, the need to balance the benefits of NbS without compromising the rights of the people, especially the ethnic minorities and the need to increase financial support for climate actions; deliberate budgeting for climate actions by the local government to facilitate domestic mobilization of climate finance.

Regenerate Africa, in commemoration of World Population Day, produced IEC materials for the community “baraza” (meetings) to raise awareness of the nexus between Social Rights and Human Rights (SRHR) and climate change. The materials included a news item (in Luganda) released by a CBS radio station, T-shirts, teardrops, and placards that carried messages on population dynamics, SRHR, and climate change. These messages included; “*Butaase Bukutaase*” meaning “protect the environment and it shall protect you”, “*Tegekera Ezadde, Nobutonde*” meaning “Plan for your family and Nature”, “*Taasa obutonde n’amaka*” meaning “Save the environment and save your family” and “Healthy environment” Healthy people!”. These raised awareness about climate change and increased food security.

ENRCSOs led by Environment Alert held television shows on NTV to discuss the energy transition estimated to have reached over 3 million people, supported the development of a CSO position paper for CoP 27 which advocated for increased consideration of energy access in health centers and payment for loss and damage, trained 305 (163 females, and 142 males) Farmer Groups and/or Farmer Field School leaders from 160 farmer field schools in promoting gender transformative approaches to expand women’s socio-economic opportunities in the central cattle corridor. Also, trained 140 farmers in the Rubirizi district, both men and women, on better farming practices such as agroforestry, contours, and established gabion.

ACODE, under the **Green Economy Coalition Project**, published the first issue of the Green Economy Brief, and this was disseminated widely among stakeholders in the ENR sector. The issue focused on the innovative green financing mechanisms to ensure a sustainable green economy. There is an expressed need for climate-proofing of infrastructure and sustainable green investment. It recommended:

- Uganda should develop facilitative standards to support transitioning to nature-based solutions by borrowing global standards.
- Financial institutions have a critical role to play in advancing mitigation and adaptation efforts
- There is heavy dependency on external finance for green growth projects, which is exacerbated by the absence of a clear and deliberate National Green Growth Financing and Investment Plan to deliver a Green Economy by 2030.
- There are Green Growth Funds at the center, yet a greater proportion of implementation occurs at lower local governments, including concerns over social exclusion.

EMLI, CAN-U, and ACODE were involved in the Compliance Assessment of the FY 2023/24 Budget about Climate Change Interventions in the NDP III. Overall, the analysis revealed that the compliance of the FY2023/24 Annual Budget about climate change interventions in NDP III was unsatisfactory at 53.46%, which was lower than last year's compliance level of 64.7%. The recommendation included:

- Like Gender and Equity, climate change should feature prominently among the cross-cutting issues section of the budget framework paper and other program budget documents.
- Incorporate off-budget support for climate change interventions into the program planning and reporting framework, clearly outlining the PIAP outputs they are aligned to and specifying the targets.
- There should be deliberate financing for key climate change-related interventions to avoid a reduction in the planned targets and cushion agriculture against climate change vulnerabilities.

Advocates Coalition for Development and Environment (ACODE) together with Makerere University Business School (MUBS), Africa Research and Impact Network (ARIN), Ministry of Water and Environment, the Ministry of Finance, Planning and Economic Development – Climate Finance Unit, Civil Society Advocacy Group (CSBAG) organized a Climate Finance Conference, that took place on 18th and 19th of September 2023. Among the issues discussed:

- Science and business need to be linked; various Universities in Uganda should be engaged to draw a linkage between science and business and also to provide climate education.
- Local capacity to participate, monitor, and implement carbon credits should be enhanced through training offered by the Government and other relevant stakeholders.
- The media/fourth estate should be engaged so that the application of carbon credits is sensitized to the public
- There is scanty information on how carbon markets work.
- Carbon footprint is still low in Africa; countries/governments from Africa could take advantage of the space to make money by selling off the carbon credits to the Western countries that have exceeded the pollution levels.
- The tools for validating the carbon credits are not wide in scope.
- Carbon Markets enable cooperation between parties through the buying and selling of carbon credits; they enable sustainable development projects such as the cooking stove project, and they create jobs, among other benefits.
- Academic institutions should support setting up targeted courses on carbon credits to equip local communities with carbon credits.
- Carbon prices fluctuate all the time, and there is limited capital flow from adaptive finance.

8.1.3.5 Reduce human and economic loss from natural hazards and disasters

ENR CSOs have continued battling **floods with the ongoing wave of El Nino** that is affecting low-lying areas in Kampala and other Cities, Municipalities, and Urban growth centers. Floods are causing loss and damage to property and lives, requiring urgent government action.



Photo 8.1.3 : A standstill of business due to El Nino in Kampala

3.1.3.6 ENR CSOs' Challenges and Recommendations

Issue 1: Delays in approval of the reviewed forest policy. This implies continued deforestation, illegal logging, and habitat destruction, potentially leading to the loss of endangered species and disruption of local ecosystems. It hinders efforts to reduce greenhouse gas emissions, making it more challenging for Uganda to meet its international climate commitments. Land use conflicts may arise as different stakeholders, including communities, government agencies, and businesses. Delays in forest policy approval can affect the timber and non-timber forest products sector, as well as ecotourism, which relies on healthy and well-managed forests. Other impacts are economic impacts, unsustainable resource management, reduction in livelihoods, loss of confidence in sector investments, and a general increment in illegal activities.

Recommendation

The MWE fast-tracks the process and finalizes the forestry policy to guide sustainable management of the forest sector across the country.

Issue 2. Biodiversity loss: This comes as a result of conflict and security concerns leading to the destruction of habitat, poaching, and illegal wildlife trade, inadequate resources to protect endangered species and their habitats, human-wildlife conflicts such as crop raiding by elephants, corruption that leads to siphoning off funds intended for conservation and land use pressures.

Recommendation

The government of Uganda needs to address these challenges which require a multi-faceted approach that involves stronger law enforcement, increased funding for conservation efforts, community engagement, sustainable land-use practices, and the incorporation of biodiversity considerations into policies related to agriculture, land management, and climate change. Collaboration among government agencies, non-governmental organizations, local communities, and international partners is crucial in mitigating the threats to Uganda's biodiversity.

Issue 3. Loss and damage: In the context of climate change, it is the adverse impacts (floods during extremes of rain and famine, during the dry season) experienced by our country that make it unable to adapt to or mitigate the effects of climate change.

Recommendations

The government of Uganda subsidizes losses and damages faced by communities, which affects livelihoods.

Issue 4: Increased encroachment of wetlands: The increased encroachment of wetlands for industrial establishment in Uganda is a concerning environmental and sustainability issue. Wetlands are vital ecosystems that provide a wide range of ecological and economic benefits, including water purification, flood control, biodiversity habitat, and carbon storage. The encroachment of wetlands for industrial purposes can have negative consequences on both the environment and local communities.

Recommendation

1. Ensure that GoU strengthens the enforcement of existing laws and regulations governing wetland protection and considers stricter penalties for illegal encroachment.
2. **The MWE** conducts educational and awareness campaigns to inform the public about the value of wetlands and the consequences of their destruction.
3. Developers consider alternative development models that do not involve wetland destruction, such as sustainable land use practices or eco-friendly industrial methods.
4. Engage **local communities** in wetland conservation efforts, ensuring their interests and traditional practices are considered.
5. **MWE** places a requirement for comprehensive environmental impact assessments for proposed industrial projects in wetland areas to evaluate potential consequences and explore mitigation measures.

8.2 UGANDA WATER AND SANITATION NETWORK (UWASNET)

8.2.1 Reporting profile

Through the Uganda Water and Sanitation Network (UWASNET), 71 CSOs submitted reports for the FY 2022/23, which accounts for 46% of UWASNET's total registered membership of 154. This makes a slight increase compared to the 69 CSOs that submitted reports in the previous FY 2021/22. However, it is important to note that the decline in CSO reporting can be attributed to the closure of some organizations that were previously active in the WASH sector.

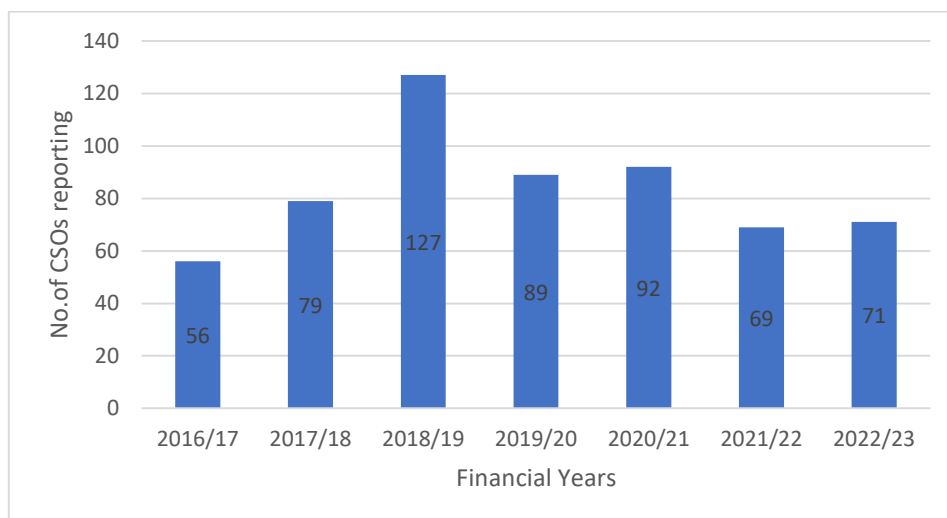


Figure 42 42 presents the trend in CSOs reporting.

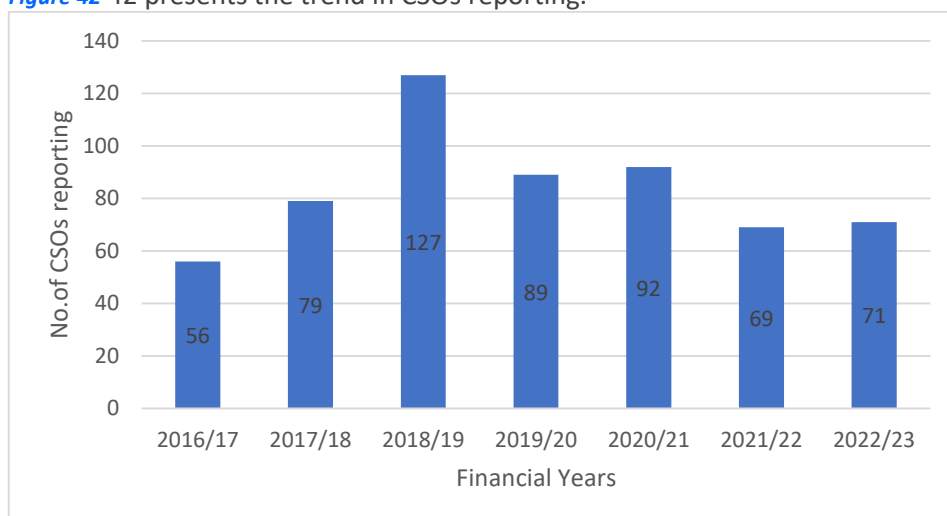


Figure 42: CSO reporting trend

International NGOs represent the largest group at 40.8%, followed by local NGOs at 39.4%, with smaller contributions from FBOs at 7%, and a mix of others including CBOs (4.2%), the private sector (1.4%), and an additional 7% from others. Figure 43 depicts the trends of CSOs reporting by category. It is apparent from Figure 43 that the trajectory of the number of internal NGOs reporting is increasing, while for the local CSOs, it is declining.

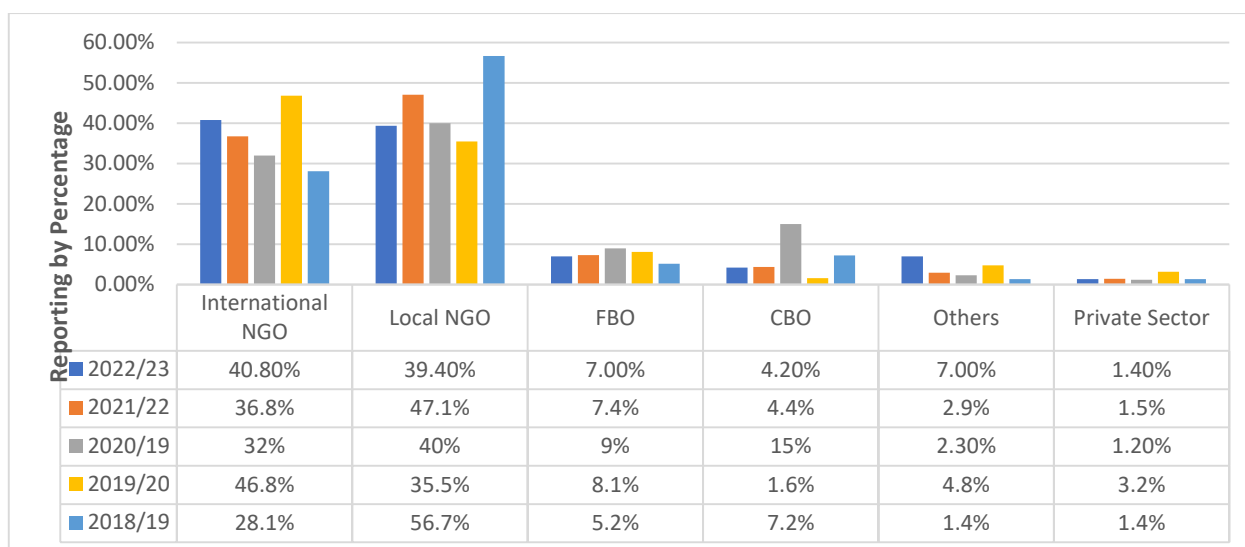


Figure 43: WASH CSO reporting by category

8.2.2 Areas of intervention

The fiscal year 2022/23 marks the third reporting year within the framework of the Third National Development Plan (NDP III). NDP III adopts a program-based approach to development, with WASH interventions falling under the three programs: Agro Industrialisation (AI), Human Capital Development (HCD), and Natural Resources Environment Climate Change Land and Water Management (NRECCLWM).

Figure 44 illustrates the distribution of CSO reporting across different intervention areas, aligned with the NDP III program categories. Among these, the HCD program garnered the highest number of interventions, primarily in water supply infrastructure (61), followed by sanitation promotion (57) and capacity building (48). Conversely, the area of Water for Production saw few interventions (03)

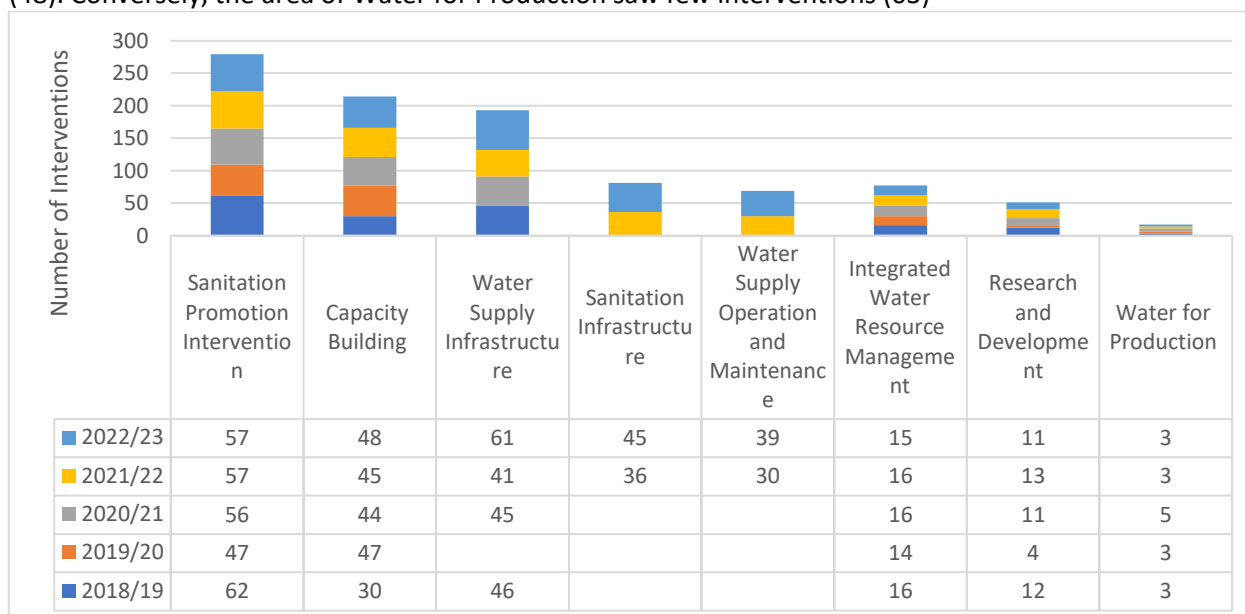


Figure 44: Number of CSOs reporting by NDP III program area

8.2.3 CSO presence/activities by region

The regional operations for the fiscal years 2020/21, 2021/22, and 2022/23 have shown interesting trends in terms of activities and CSO presence. The regional operations have witnessed growth and shifts in focus over these three fiscal years. Central region has emerged as a prominent area of activity, suggesting a strategic shift in priorities. However, the Lango, Acholi, Western, and other regions have maintained their relevance in program operations, indicating a balanced approach to development efforts across various regions. 18(13%) out of 136 districts did not have any CSO presence from those that reported hence an indication of inequity in WASH service provision.

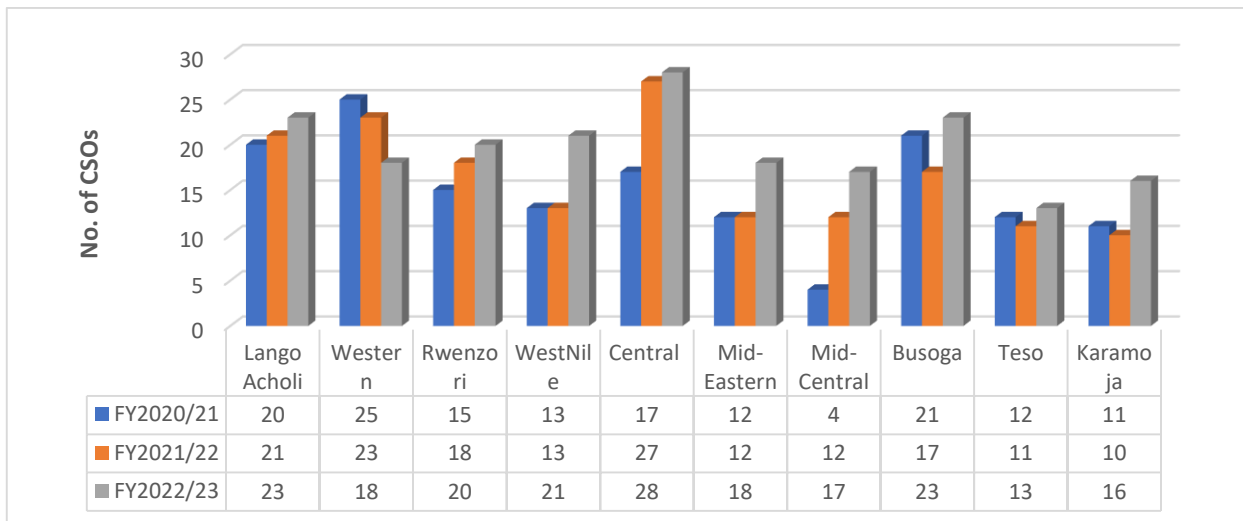


Figure 45: CSO presence by region

8.2.4 CSO investment trends

The CSOs investment trend is expounded by both the trend trajectory over the years and by thematic area as illustrated in figures 46 and 47 below. Figure 46 shows the trend in CSOs investment since FY 2018/19. The investment has been on an upward trajectory except in FY 2021/22 when there was a reduction partly due to the COVID pandemic. And figure 47 indicates Water Supply Infrastructure registering the highest investment over the years, fluctuating from 46.2bn in FY 2019/2020 to 59.1 in 2022/2023, with Water for Production and Research and Development registering the lowest investment trend over the years. This may be attributed to the heavy investment in hardware targeting access to improved water sources for which collection time is within 30 minutes compared to software intervention encompassing Research and Development.

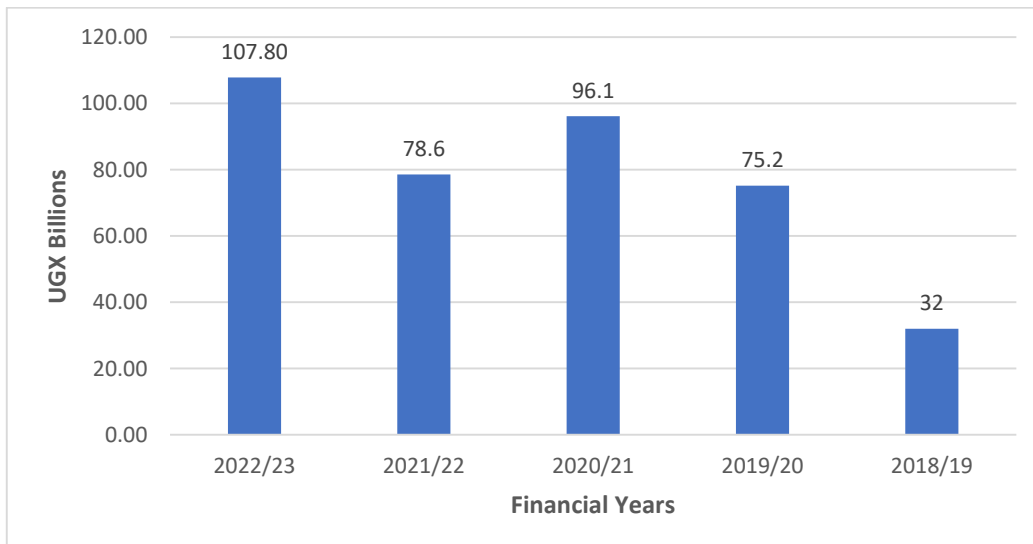


Figure 46: CSO investment trends

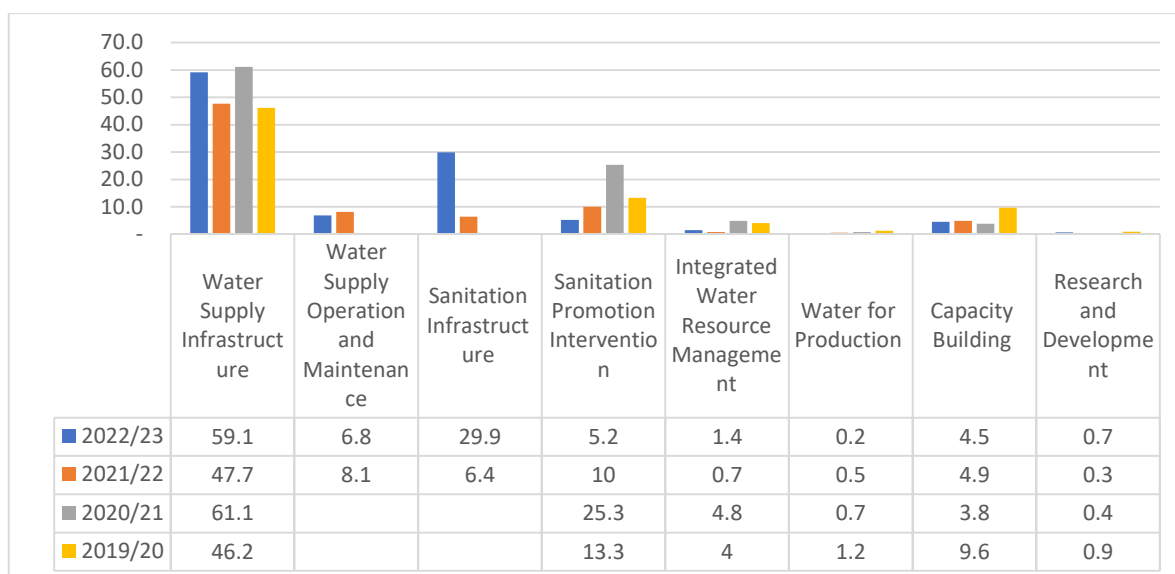


Figure 47: Investment trends per thematic area

The total CSO investment in water supply, sanitation, capacity development and research and Development during FY2022/23 was UGX 106.2 billion. This CSO investment is 1.8% of the PIAP planned investment. Table 77 shows the comparison of HCD PIAP investment requirements and actual contribution by CSOs.

Table 77: Comparison of HCD PIAP investment requirement and Actual by CSOs over the years

Budget Area (UGX Bn)	FY 2020/21	FY 2021/22	FY 2022/23
HCD PIAP extracted Budget	4,756	5,901	6,029
UWASNET Investment - Water	61.1	55.8	65.9
UWASNET Investment - Sanitation	25.31	16.4	35.1
UWASNET Investment - CB	3.75	4.9	4.5
UWASNET Investment - R&D	0.37	0.3	0.7
Total UWASNET HCD Investment	90.16	77.4	106.2
Percentage Contribution	1.9%	1.3%	1.8%

8.2.5 Investments by the Private Sector (Financial Institutions)

Access to clean water and proper sanitation facilities is a fundamental human right and a critical aspect of public health. In Uganda, several financial institutions have taken the initiative to support projects related to water and sanitation. This report analyzes the contributions of three major financial institutions, namely Opportunity Bank, Finance Trust Bank, and the Association of Microfinance Institutions of Uganda, in increasing water and sanitation coverage in various regions of the country. The data provides insights into the number of loans disbursed, the number of people reached, loan amounts, and their impact.

Opportunity Bank made significant contributions to water and sanitation projects. It provided 594 loans to end borrowers, reaching 6,224 people in total. On average, each improvement supported by Opportunity Bank reached approximately 10.48 people. The principal loan amount disbursed for these projects stands at UGX 1,376,120,000, with an average loan size per end borrower of UGX 2,316,700.

Finance Trust Bank disbursed 258 loans to end borrowers, benefiting 1,234 people. On average, each improvement reached around 4.78 people. The principal loan amount disbursed by Finance Trust Bank was UGX 985,791,890, with an average loan size per end borrower of UGX 3,820,899.

The Association of Microfinance Institutions of Uganda made a substantial contribution by disbursing 2,083 loans to end borrowers, reaching 62,703 people. On average, each improvement reached approximately 30.1 people. The principal loan amount was UGX 3,065,655,569, with an average loan size per end borrower of UGX 1,471,750.

Overall Impact: Collectively, these financial institutions have disbursed 7,888 loans to end borrowers, positively impacting 124,725 people in Uganda. On average, each improvement has reached around 15.81 people. The total principal loan amount disbursed across all institutions is UGX 20,818,081,266, with an average loan size per end borrower of UGX 2,639,209. Continued collaboration between financial institutions, government agencies, and community organizations is essential to expand access to clean water and proper sanitation, ultimately improving the overall quality of life for all Ugandans.

Table 78: WASH loans disbursed by Financial Institutions

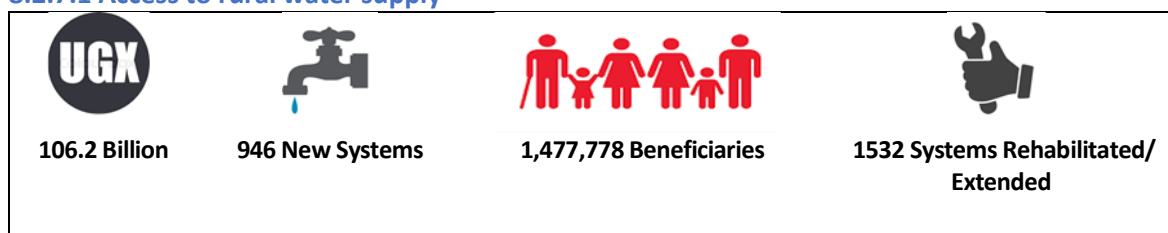
Overall	Number of Loans to End Borrowers	7,888
	Number of People Reached	124,725
	Average # of People Reached per Improvement	15.81
	Principal Loan Amount Disbursed (UGX)	20,818,081,266
	Average Loan Size per End Borrower (UGX)	2,639,209

8.2.6 CSO contribution to district local government budgets

CSOs are development partners to the district local government (DLG) in the districts of operation. Coordinated development planning requires integration of budgets of all development partners in the DLG budget. 55% (39) of the 71 CSOs with interventions during FY2022/23 reported a proportion of their budgets in the DLG budget. Overall, on average, 30% of the CSO budgets went to the districts in FY2022/23 as compared to 29% of FY2021/22.

8.2.7 CSOs investment in the Human Capacity Development Programme

8.2.7.1 Access to rural water supply



44 CSOs invested a total of UGX 59.1 billion in financing water supply in FY 2022/23, an increase of UGX 11.4 billion from FY 2021/22.

Table 79 below summarizes CSOs contribution to water resource management subprogramme focusing on Increase access to inclusive safe water by construction of new improved water sources. The trend indicates a substantial contribution to point water source relative to other improved water sources. Table 79 presents the trend in CSOs contribution since the adoption of the current New NDPIII with regard to construction n of point water source registering the highest intervention area. The 13 new piped water system constructed had 92 new public stand posts, 478-yard connections, 24 kiosks and 18 institutional connections.

Table 79: Trend of CSO Contribution to rural water access relative to the PIAP targets from FY 20/21 to/22/23

New Water Source	By CSOs FY22/23	By CSOs FY21/22	By CSOs FY20/21	HCD target 3-year cumulative target	CSO Contribution (%)	PIAP
Piped Water System	13	35	24	340	21.2%	
Point Water Source	886	666	112	30	3,546.7%	
Solar powered piped system	67	27	2	267.5	35.9%	

Table 80 presents the list of new piped water systems constructed, type and number of connections constructed by CSOs.

Table 80: List of New Water systems constructed constructed by CSOs

No	Name Of The Piped Water Supply System	District	Village/Town Is The Water Supply System Located	No. Connections (yard, PSP & inst)
1	Palorinya District Water Supply System	Obongi	Palorinya South Sudanese Refugees Settlements	PSP-1. Institutional 2
2	Kinakyaitaka,	Kikuube	Kinakyaitaka	PSP-1
3	Kisambya	Kyegegwa	Kisambya Village In Mpara Sub County In Kyegegwa	PSP-7
4	Ryakatwanga	Kyegegwa	Ryakatwanga Village	PSP-4
5	Kirebareba	Isingiro	Kirebareba Village	PSP-3
6	Rwengiri	Isingiro	Rwengiri Village	PSP-3
7	Rwemigango	Isingiro	Rwemigango Village	PSP-3
8	Olilim Water Supply Scheme	Katakwi	Osiomit Village, Morunlinga, Aiti, Osemwa and Siriye Villages In Olilim Towb=N Board Katakwi District	PSP-14 Yard-60 Kiosk-14
9	Nabukalu Piped Water System	Bugiri	Nkaiza Parish	PSP-10 Institutional-2
10	Mbeya Island Piped Water Supply System	Mukono	Mbeya Island	PSP-4
11	Bihanga - Kaberebere Wss	Kamwenge	1. Bihanga I 2. Bihanga li 3. Kakinga 4. Kanara I 5. Kanara li 6. Kaberebere 7. Kanyonza li 8. Kasozi 9. Kitonzi 10. Rwomurimo	PSP-28 Yard -418 Kiosks-10
12	Zone 8 Block 1 Motorized Water System	Lamwo	Palabek Settlement, Lamwo Settlement	PSP-5
13	Zone 8 Block 3 Water System	Lamwo	Palabek Settlement, Lamwo District	PSP-5

Table 81 presents the point water sources constructed by CSOs. These comprise boreholes, protected springs, and shallow wells.

Table 81: CSO Contribution to rural water access (point water sources)

Point Water source	Total of type constructed FY22/23	Total of type constructed FY21/22	Percentage distribution FY22/23
Protected spring	49	42	5.5%
Shallow well	28	64	3.16%
Deep Borehole	809	560	91.3%
Total	886	666	100%

8.2.7.2 Villages with access to safe and clean water supply

307 institutional and communal rainwater harvesting (RWH) systems and 280 household water tanks were provided by CSOs. A total of 653 villages were reported to have new water points, hence access to safe and clean water supply. Table 82 shows the comparison between the HCD PIAP target and the actual achievement by CSOs in FY 2022/23.

Table 82: Comparison of PIAP target and actual achievement by CSOs in FY 2022/23

PIAP action	Improved water point per village	RWH systems (School and Communal)
By CSOs	653	307
HCD target	3,880	30,000
CSO PIAP Contribution (%)	16.8%	3.07%

8.2.7.3 Functionality of rural water systems

CSOs have successfully rehabilitated a total of 1,382 point-water sources and completed 26 upgrades and expansions of piped water systems. The table 83 below illustrates the contribution of CSOs on the functionality of these water sources. For point-water source rehabilitation, CSOs have made a remarkable contribution, accounting for 35.6% of the total rehabilitation efforts. This demonstrates their substantial role in improving access to clean water at the community level. In the case of piped water systems, CSOs completed 26 rehabilitations, upgrades, and expansions., This achievement has led to a substantial increase in the number of water connections, including 173 public standposts, 933-yard connections and 18 institutional connections.

Table 83: CSO contribution to functionality of water systems

PIAP action	By CSOs	PIAP target	CSO PIAP Contribution (%)
Rehabilitation of existing point water sources	1,382	3,880	35.6%
Rehabilitation, upgrade and expansion of existing Piped Water Systems	25	50	150%

Table 84 presents the list of piped water systems rehabilitated by CSOs during the FY 2022/23.

Table 84: List of Water Systems Rehabilitated, upgraded and expanded

S/No	Name of the piped water supply system	District	Village/Town where water supply system located?	No connections added (yard, PSP & Inst)
1	Kanyabutaka Piped Water Supply System	Rwampara	Nyakaikara, Rukono Cell	PSP-7
2	Mubali	Kabarole	Mubali-Kijura Town Council	PSP-4 Yard - 1
3	Kanywamaizi Gravity Flow System	Isingiro	Rwabyemera	PSP-20
4	Kanywambogo Gravity Flow Sytem	Ibanda	Kibingo	PSP-19
5	Kyakashana Water Distribution Network	Isingiro	Kyakashana	PSP-23 Institutional-3
6	Malongwe Piped Water System Extension	Buikwe	Malongwe Parish	PSP-30 Yard-50
7	Pagirinya	Adjumani	Pagirinya Block E village	Institutional-2
8	Baratuku/ Elema	Adjumani	Baratku village	PSP-1
9	Pagirinya	Adjumani		PSP-1
10	Nyumanzi Block E	Adjumani	Nyumanzi Settlement	PSP-1
11	Kachunuzi Gravity Flow Scheme	Isingiro	Kachunuzi Oruchinga	PSP-2
12	Nyabitusi, Bukonderwa, Kabuga II, Byabasamu, Kitonzi Extensions	Kamwenge	Nyabitusi 1, Nyabitusi II, Bukonderwa, Byabashambu, Kabingo 1, Kabingo III, Kabuga II, Kitehurizi, Kitonzi, Kyabandara 1, Kyabandara II, Masaka II, Nyanchwamba II	PSP-28 Yard-325 Institutional-8
13	Bisozi, Kaswa, Kiyagara, Nyanza, Rugando, Kyerima II, Biguli Extensions	Kamwenge	Bisozi, Bitojo, Buhumuriro, Kaberebere, Kakinga II, Kibwera, Kirinda, Kiyagara, kyamuhamira, Kyerima II, Mabaale I, Mukole II,	PSP-35 Yard-557 Institutional-5

S/No	Name of the piped water supply system	District	Village/Town where water supply system located?	No connections added (yard, PSP & Inst)
			Nyanza, Rugando, Rushenyi, Rwembirizi	
14	Rwabahinda Water Supply Distribution Network	Isingiro	Rwabahinda	PSP-2
15	Nakivale Basecamp Water Plant	Isingiro	Basecamp Nakivale	None
16	Msyiera Water Plant	Isingiro	Msyiera	None
17	Bururuma Motorised Borehole	Isingiro	Bururuma	None
18	Kyeibare 2	Isingiro	Kyeibare C Motorised Borehole	None
19	Kyeibare 1 Motorised Borehole	Isingiro	Kyeibare	None
20	CSV	Isingiro	Kaazya Juru	None
21	Loparipari Primary school to Lorunget	Napak		None
22	Kibengo Motorised borehole	Isingiro	Kibengo	None
23	Oruchinga Basecamp Motorised Borehole	Isingiro	Basecamp Oruchinga	None
24	Nshungyezi Motorised Borehole	Isingiro	Nshungyezi	None
25	MSF water plant	Isingiro	Kakoma	None

8.2.7.4 Operation and Maintenance of water supply infrastructure

Maintenance is key to ensuring functionality and sustainability of investment in water supply infrastructure. Activities for maintenance included 151 piped water systems and 31 point-water sources. Management/operation of the systems was varied. The majority of the systems are managed by the community. It should be noted that some CSOs (Malteser International, Lutheran World Federation, Oxfam, Nsamizi, Water Compass, WHAVE, and Uganda Red Cross) manage the water sources. Table 85 shows the operators of the piped water systems provided by CSOs.

Table 85: Summary of operators for piped water systems invested in by CSOs

System operator/manager	NWSC	Private operator	Community	Other	LG	Total
No. of Systems	7	31	70	77	9	157

The performance of the different operators was average as detailed in table 86, apart from NWSC which had missing information on customer satisfaction levels.

Table 86: Key performance indicators of operators for piped water systems invested in by CSOs

System manager	Number of systems	Average Days of full-time water supply in the year	Average Customer Satisfaction Index (%)
NWSC	7	365	Not stated
Other	77	353	50.4
Private operator	31	358	16
Community	70	171	22.5
Local Government	9	136	12
Grand Total	157	228	60

8.2.8 Access to inclusive sanitation and hygiene services in rural areas



35.1

Billion



70,563

Households



73,756

Hand Washing Facilities



1,686,082

Beneficiaries

45 CSOs invested UGX 29.9 billion in sanitation infrastructure while 57 CSOs invested UGX 5.2 billion in sanitation promotion activities in FY2022/23. This was higher than that invested in FY2021/22 of UGX 16.4 billion.

8.2.8.1 Sanitation infrastructure

Traditional latrines with slabs/sanplats dominate the sanitation facilities provided (79,044), followed by Unlined VIP Latrines (12,600). The infrastructure investments benefited 935,067 people, of which 484,662 were females, and 545,801 were refugees. Out of latrines/toilets constructed, 70,563 were household sanitation facilities. A total of 73,756 functional hand-washing facilities were installed. Out of all the investments made in the construction of sanitation infrastructure, the average CSO contribution on the total cost was estimated at 63%, while the households catered for the other cost.

Table 87: Distribution of interventions and sanitation facilities constructed

Type of sanitation facility constructed	Number of Interventions FY22/23	Total number of constructed toilets FY22/23	Total number of constructed toilets FY21/22
Traditional latrines with slabs/sanplats	42	79,044	38,720
Unlined VIP latrines	22	12,600	908
Lined VIP latrines	68	5,987	6,568
Ecosan Toilet	12	7,511	15,124
Pour flush toilets	8	425	3,807
Automatic flush/ Waterborne toilets	7	219	25
Septic tanks	0	0	1,274
Other	10	2837	4,776
Total	169	108,623	71,202

The distribution of interventions across beneficiary categories is shown in Table 87. Interventions were concentrated on households (62 interventions), followed by schools (53 interventions).

Table 88: Distribution of Interventions among beneficiary categories

Beneficiary Category	Number of Interventions	Percentage
Household	63	45%
Public places (Markets, Taxi parks etc)	14	5%
Schools	69	38%
Health Centres	22	8%
Other	7	4%
Total	169	100%

8.2.8.2 Elimination of Open Defecation

Table 89 presents the villages triggered, and those declared Open Defecation Free (ODF). It also provides the population declared ODF and the number of districts.

Table 89: ODF villages achieved in FY 2021/22

ODF road map implementation progress	
Parameter	Result
Villages triggered for ODF	19,096
Villages declared ODF	955
Population in Villages declared ODF	479,320
Females in Villages declared ODF	276,909
Number of districts with interventions	87

8.2.8.3 Sanitation Interventions in Schools

The WASH interventions were premised on the NDPIII programme objective of improving the foundations for Human Capital Development (HCD) by equipping and supporting all lagging primary and secondary schools, and high education institutions to meet Basic Requirements and Minimum Standards (BRMS). CSOs have contributed through provision of sanitation infrastructure investments where by 88 schools have benefited through several interventions such as sanitation facilities, hand washing facilities and menstrual hygiene rooms. The construction of sanitation facilities has led to the improvement of the pupil: stance ratio from 1:89 to 1:43 in the schools that benefited. Table 90 presents the sanitation infrastructure constructed in schools.

Table 90: Sanitation Infrastructure provided to schools

Facility Type	Number of facilities
Hand Washing Facilities	209
Stances for Boys	125
Stances for Girls	351
Male Teacher stances	8
Female Teacher stances	7
Persons with Disabilities stances	124

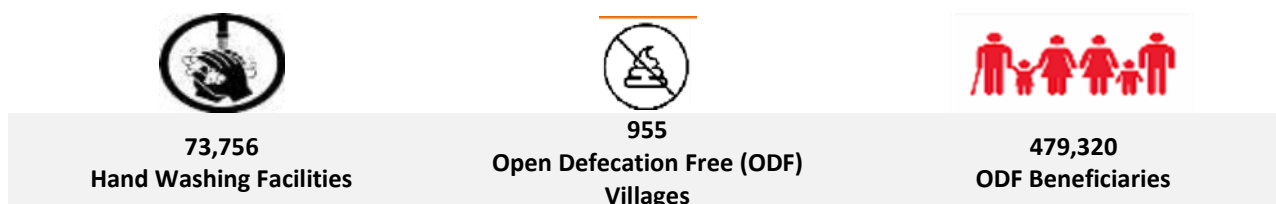
8.2.8.4 Lessons from sanitation interventions

The following lessons were learnt from CSOs school sanitation interventions:

- i) Sharing of water sources with the community compromised the security and safety of the learners and school property. Overcrowding at the water sources because of the population of learners and community members leading to loss of class time.

- ii) Some of the water sources especially boreholes were not inclusive because they could not be easily operated by PWDs and learners in nursery sections. Majority of the schools lacked drinking water storage containers and learners were drawing water directly from the water source to drink.
- iii) Most schools with ECD/ nursery section do not have separate latrines for the children. Lined pit latrines were not being emptied because of high cost and lack of faecal sludge treatment plants. Half of the schools had urinals for girls with high risk of spreading infections.
- iv) Majority of schools do not have incinerators and changing rooms and the few who have them are not fully utilized. In some schools, menstrual hygiene was being taught to only girls contrary to the guidelines.

8.2.9 Hygiene promotion



Hygiene promotion was a key activity of the CSO COVID-19 response and continued efforts to contribute to desired improved sanitation levels in the country. 73,756 handwashing facilities (HWFs) were provided as part of the interventions.

Hygiene and sanitation improvement campaigns towards creation of open defecation free (ODF) villages resulted in triggering in 19,096 villages in 87 districts by several CSOs. 955 villages, with 479,320 residents, of whom 58% are female were declared ODF.

Different hygiene and sanitation promotion approaches were used including community led total sanitation (CLTS), home improvement campaigns (HIC), sanitation marketing (SanMark), Participatory, Hygiene and Sanitation Transformation (PHAST), Follow up MANDONA, Child to Child Approach, Community Service, Market Based Sanitation Implementation Approach (MBSIA), Coaching at household level, household clustering, Incentives in non-triggered blocks.

8.2.10 Capacity Building

38 out of the 71 CSOs that submitted data reported that they carried out at least a capacity building intervention, benefiting **852,498** people of which 56% were female with a total investment of **UGX 4,546,448,406**.

Capacity building interventions covered training (34%), dialogue meetings (21%), advocacy, sector coordination, demand rights WASH and policy influence at 3%.

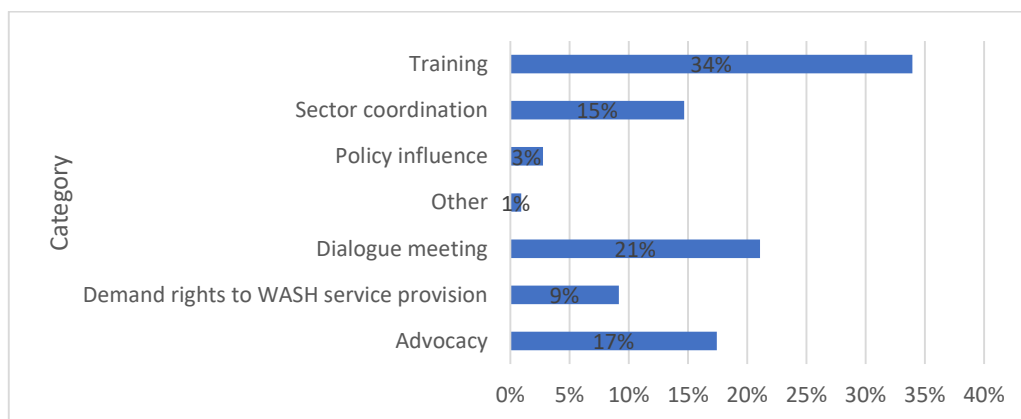


Figure 48: Capacity-building interventions

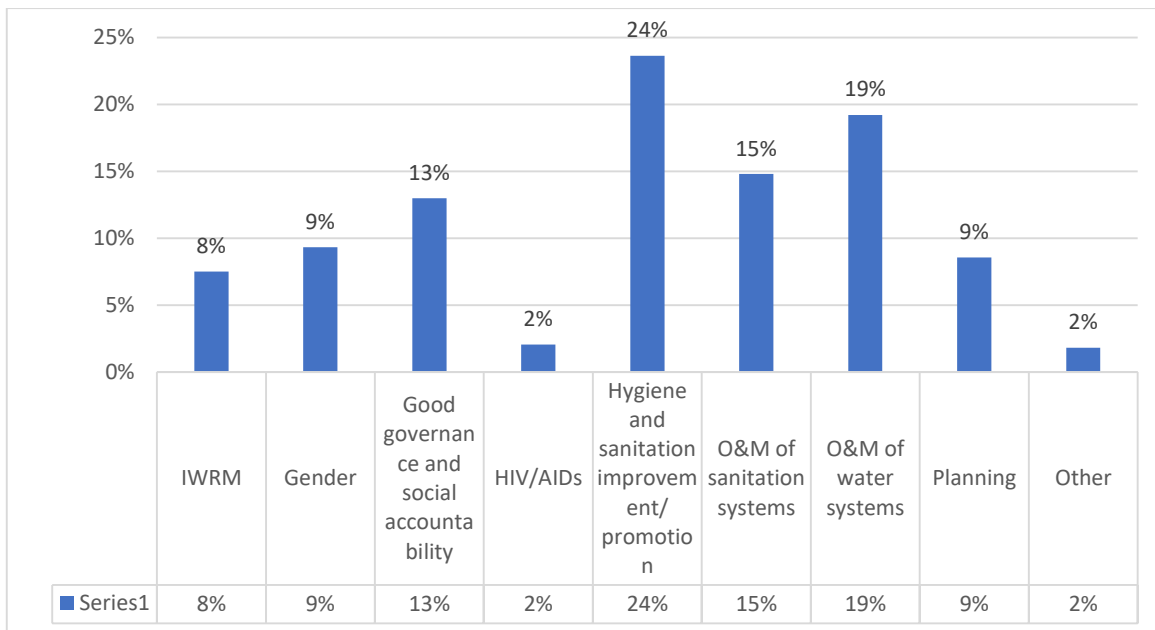


Figure 49: Capacity Building topics

8.2.10.1 Stakeholders Engagement

Stakeholders engaged for capacity development included community members, CSO staff, Local Government, MWE staff, refugees, religious leaders, school children, teachers, and training and research institutions, among others.

8.2.10.1 Impact of Capacity building activities

852,498 people were involved in the capacity-building activities, 56 % of whom were females. The behavioral impacts included gender-responsive water and sanitation committees, improved good agronomic practices, improved sanitation, and hygiene service delivery, and reduced open defecation. In addition, more evidence-based reporting and planning by CSOs and DLG staff was noted.

8.2.11 Inclusiveness and Vulnerability

The NDP III seeks to reduce vulnerability and gender inequality along the lifecycle. For this case, inclusiveness means the provision of equal access to WASH services for women and girls, people living with a disability, old people, and any marginalized or minority group and vulnerability, which is a predisposition to be negatively affected. CSOs continued to prioritize inclusiveness in the FY 2022/23 interventions. These interventions included but were not limited to inclusive infrastructure design, provision of access subsidies, menstrual hygiene management, and capacity-building activities.

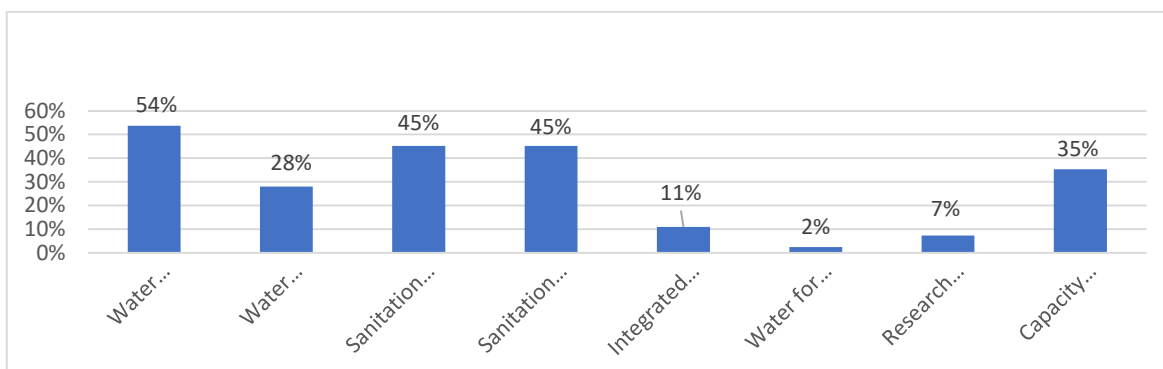


Figure 50: Inclusiveness and vulnerability related activities

8.2.11.1 Inclusive infrastructure

CSOs provided water supply and sanitation facilities for the vulnerable and adopted inclusive designs. For example, World Vision provided an access ramp and gender-segregated toilets, and a seat for Persons with Disabilities (PWDs) and the elderly to access the water sources. Sanitation facilities constructed in schools

and health care facilities included a separate stance for PWDs fitted with handrails, a seater, and a ramp for easy access. Menstrual hygiene provisions at schools allowed for the inclusion of the girl child in sanitation planning and management.

8.2.12 Research initiatives

Investment in this thematic area more than doubled from UGX 0.3 Billion in the previous Financial Year to UGX **0.7 Billion** in FY2022/23. The functionality of water supply systems recorded the largest component of research as illustrated in table 91 below.

Table 91: Research and development themes

Theme	Topic	Findings
Faecal sludge management	Deep Row Entrenchment of Faecal Sludge in Small Towns in Uganda	<ul style="list-style-type: none"> • Faecal sludge was found to undergo stabilization in the trenches over time. A comparison of the characteristics of fresh sludge as received at the site and sludge exhumed at six, nine, and fourteen months from the trenches indicated that there were changes in the composition of the sludge with time. • Reduction in total solids, nutrient content, and BOD was realized, and this revealed that sludge stabilization occurred with time in the trenches. The risk of pollution of water sources was found to be minimal. • Sites were located at a distance further than 30m from any point water source and the water table was lower than 5m from the bottom level of the trench, hence the minimal risk of pollution through leaching. • In addition, results revealed no risk of nitrate and nitrite contamination of groundwater, as no concentrations of these were found in the fresh FS.
Functionality of water supply systems	Borehole	<p>Advanced Geosciences Super siting R1/IP made in USA was utilized for data gathering. Among the several types of electrode configurations in resistivity survey, the Schlumberger was used for this project.</p> <p>The sounding point AB/2 was reached up to 83m, and this gives a depth of investigation roughly around 83m. The data collected were plotted digitally by a log-log paper immediately at the site in order to control the quality of the data and to have preliminary information on the subsurface condition. In the office, the data are downloaded to a PC from the instrument. Analyses of geophysical sounding points were made using the Excel program and IP2win Inversion software. To this effect, the drilling site was elected as the first priority sites for drilling. This report presents findings and recommendations forwarded for the proposed new borehole site.</p>
	Public Private Partnership Driving SDG 6 Attainment in Buikwe Sub County	<p>This study investigated the importance of partnerships in Uganda’s water sector, focusing on World Vision’s collaboration with NWSC to enhance water access and sustainability. Employing a participatory approach involving various stakeholders, the research identifies key factors for successful collaborations. The results show that partnerships have significantly improved water access (95%), infrastructure functionality (95%), and community involvement in Buikwe Sub County. Effective partnerships are characterized by clear communication, shared responsibilities, trust, and coordinated stakeholder efforts. In conclusion, collaborative partnerships, combined with role clarity, capacity-building, policy enhancement, and innovative financing, play a crucial role in achieving sustainable water supply and universal access, thereby driving positive change in the water sector.</p>

Theme	Topic	Findings
	Water Coverage And Functionality Census Of Nakaseke District	In March-April 2023, Wells of Life (WoL) conducted a baseline study in Nakaseke District, Uganda to assess water supply coverage. The study aimed to identify and analyze the number, distribution, and functionality of water sources in the district. It covered multiple administrative units and employed various data collection methods such as interviews, observations, and direct enumeration of water sources. Research assistants equipped with smartphones visited each protected water source, collecting data on names, locations (including GPS coordinates), and functionality. The study revealed a total of 912 water sources in Nakaseke District, including deep wells, shallow wells, spring wells, and public stand posts (PSPs). Functionality levels varied across the district, with Nakaseke South County having the highest number of water sources, followed by Nakaseke Central County and Nakaseke North County. However, the study identified 43 villages without access to safe water sources, emphasizing the urgent need for intervention in those areas.
	Impact Of Grants On Water, Sanitation And Hygiene In Schools	Grants: There is no specific grant for water, sanitation, and hygiene (WASH) in learning institutions (schools). The Human Capital Development (HCD) programme implementation plan of NDP III provided support for improvement of WASH in institutions, including schools. A total of UGX 432 billion was provided over a 4-year period ending 2024/25. However, these funds are yet to be realized. WASH in schools is being funded by part of the education grant and water grants. There is no specific budget line under the two grants, which makes it difficult to quantify the exact amount of money that has been spent by the Government on WASH in schools. This complicated direct measure of the impact of Government Grants on WASH in schools. Over the 10-year period (2012/13 - 2021/22) the education grant to local Governments was UGX 15,093.48 billion and the water grant was UGX 693.68 billion. These grants contributed to improved WASH in schools.
Innovative technologies	Piloting of Well Monitoring Sensors	Over 50 well monitoring sensors were installed from Charity Water and Doxa Research in in Mityana. The sensors provide real-time updates on the status of use and functionality of water from the wells.
	Re-use of Briquette Ash as a Soil Conditioner	Briquette ash is slightly alkaline (8.35), and pH is lower in soils (7.4) than it is in ash. This means that the briquette ash has the potential of increasing soil pH. Briquette ash is significantly rich in nutrients such as nitrogen, potassium, magnesium, and calcium compared to the soil.
	Transition from Analogue Savings and Loans to Digitized Savings and Loans, Based on Catfish Farming and Beekeeping	From pilot areas, community members are picking interest in the above stated activities.
Integrated water resources management	Harnessing Community Potential to Protect the Water and Environmental	Community volunteerism and in-kind contribution foster sustainability and ownership. Joint efforts by stakeholders to boost the rate of ecosystem restoration and protection.

Theme	Topic	Findings
	Resource for Social Economic Transformation of Rwizi Catchment	
	Integrated Approach to Waste Management within Nebbi Municipality	Most households lack waste management bins, toilets, and clean water.
Other	Utilizing a Household Engagement and Accountability Approach (HEAA) to Accelerate Access to WASH Services in Rural Uganda.	A savings and credit scheme was established, enabling 100% (25) of the households to construct rainwater harvest tanks, permanent improved sanitation facilities, and establishment of model WASH-compliant homesteads in the first 1 year of implementation.
	A Study on Government's Commitments Vis-a-Vis Budget Allocations in Regard to WASH and IWRM Delivery in Uganda	The Government committed in the HCD PAIP a total of UGX 33,966.8 bn towards WASH (MWE and NWSC combined). However, the actual budget allocation based on MTEF is UGX 4,095.8 bn, representing 12%. This shows there is a funding shortfall of 88%. It also shows that for the first 3 years, the budget was slightly above UGX 1 trillion but reduced to UGX 305 bn in FY 2023/24 and FY 2024/25 partly because the second BCC did not reflect external financing for WASH.
Water quality	Dispensers for Safe Water and In-Line Chlorination	We can reach out to the high population and reduce child mortality due to faecal oral disease through Dispensers for safe water. Currently, DSW Uganda is serving 17,909 Dispensers, a population of 4,716,685 million, and a total of 722,327 households (as per our DSW mid-year update 2023). Dispensers for safe water also contribute to environmental conservation, especially given that water is treated and there is no need to boil drinking water again. The program contributes to the realization of other WASH parameters, i.e. hygiene and sanitation, and strengthening of water user committees and community structures, hence providing platforms to discuss other developmental issues within the communities.
	Water Quality Analysis and Surveillance	out of 250 water samples tested, 43 were tested in quarter 4, and about 39 water points were safe, representing 91%, 3 were of low risk, and 1 water point representing 2% were of high health risk.

8.2.13 WASH Case Studies

Case Study 1: Enhancing Water Supply Infrastructure: Utilization of Borehole Camera, WELTHUNGERHILFE

Introduction: This case study explores the innovative utilization of borehole cameras in the realm of water supply infrastructure. It underscores the pivotal role of this technology in enhancing the efficiency and effectiveness of water supply systems, specifically boreholes, particularly in challenging environments.

Focus: This case study centers on the deployment of borehole cameras for the inspection and monitoring of water wells and boreholes. The technology involves the lowering of a specialized camera system illuminated by LED lights. The panoramic camera captures images of the borehole wall, and this visual data is transmitted via cable to the controller and display terminal. Real-time images and videos of the well's interior are captured and analyzed to assess well integrity and water quality.

Beneficiaries: Primary beneficiaries encompass water utility companies, government agencies, and communities reliant on boreholes for their water supply.

Approach/Methodology: The utilization of borehole cameras in Welthungerhilfe's water supply initiatives has been instrumental in several ways:

- **Enhanced Decision Making:** Borehole cameras have played a pivotal role in decisions related to borehole rehabilitation and the upgrade to piped water schemes. For instance, during the construction of the Olilim pipe water system, the camera was invaluable in pump installation. It has also resolved controversies surrounding borehole designs, providing clarity on design integrity and the need for upgrades.

- **Enhanced Maintenance:** The borehole camera's ability to detect construction faults, corrosion, material blockages, and aquifer issues has facilitated proactive maintenance, resulting in cost savings.
- **Improved Water Quality:** The camera's use in inspecting underground piping systems has identified contamination sources and corroded pipes, allowing for targeted cleaning and maintenance to prevent contamination.
- **Increased Reliability:** Borehole cameras enhance the overall reliability of water supply systems by preventing unexpected breakdowns and ensuring fallen materials are promptly removed.

Lessons Learned

- **Data-Driven Decisions:** Visual data from borehole cameras enable evidence-based infrastructure management decisions, including the need for maintenance, flushing, material replacement, and upgrade eligibility.



- **Cost Savings:** Investing in borehole camera equipment is cost-effective as it prevents capital losses associated with malfunctioning water supplies.

Challenges:

- **Initial Investment:** Acquiring and deploying borehole camera systems may necessitate a substantial upfront investment.

Photo: 8.2.1: Borehole with Camera

- **Technical Expertise:** Limited knowledge about camera usage and data interpretation.
- **Access to Remote Areas:** Logistical challenges in deploying cameras to remote or off-grid locations.

Way Forward:

- **Encourage Adoption:** Advocate for the widespread adoption of borehole camera usage among water supply authorities and organizations.
- **Capacity Building:** Invest in training programs to ensure personnel are proficient in utilizing and maintaining borehole camera systems.

Case Study 2: Enhancing Healthcare Services at Liwa Health Centre II

In the heart of Gimara Sub County, Ms. Mildred, the In-charge of Liwa Health Centre II, recognized a pressing sanitation issue affecting their facility. The absence of a clean and safe water source, particularly a borehole, posed a challenge for both the dedicated health staff and the patients seeking care. In response, the facility eagerly embraced an action plan to address this critical concern.

During a follow-up visit by UWASNET staff, the Health Unit Management Committee, alongside the Parish chief and the Community Development Officer responsible for WASH, affirmed their commitment to resolving this issue. They reported that Liwa Health Centre II was due to receive a solar motorized piped water system, a development that would significantly enhance the facility's capabilities.

Building on the momentum generated by the WASH Scorecard feedback meeting, the committee devised a strategy to fence the placenta area, utilizing locally available materials and community labor. Ms. Mildred, the Health In-charge, expressed her satisfaction with these initiatives. She noted that the ongoing expansion of the motorized solar water system at Liwa Health Centre II would greatly improve their ability to provide essential care during childbirth.

"This project couldn't have come at a more opportune moment," stated the Facility In-charge. She emphasized the excitement surrounding the project's potential impact on both the healthcare staff and the community members who rely on the facility for medical services. This transformation promises to bring cleaner, safer water and improved healthcare access to Liwa Health Centre II and its surrounding community.

Ms. Mildred, the Health Facility In charge at Liwa Health Centre II, expressed her enthusiastic anticipation for this project, emphasizing its timeliness. She remarked, "I am greatly thrilled about this initiative, especially because it has arrived precisely when it is most needed. Following the feedback meeting, we are delighted to report that the extension of the motorized water system at our facility is currently in progress."



"Observing the materials designated for the motorized pipe water extension to Liwa Health HCII, Henry, the Program Manager for PROFA, and Patrick Ogwang, the Governance and Accountability representative for West Nile Region, were present."

When the UWASNET team arrived to conduct the Scorecard assessment, it was evident that the facility lacked a fenced placenta disposal area and a proper waste management site. However, following the feedback meeting, despite initially assuming that these tasks were the responsibility of

the district, a new perspective emerged. Michael, the Parish Chief of Gimara Parish, explained, "We came to realize that we have the capability to address these issues ourselves, utilizing local resources such as fencing the placenta pit with the materials available within our community."

Case Study 3: Enhancing WASH Accountability through the UWASNET WASH Scorecard

In response to a crucial call from diverse stakeholders, the Uganda Water and Sanitation NGO Network (UWASNET) embarked on a journey to bolster the capacity of its members to generate evidence for Water, Sanitation, and Hygiene (WASH) program outcomes. This initiative took shape in 2021 with the development of the WASH Scorecard, a transformative tool that is now being implemented under three significant programs, each with its distinct mission. Civil Society Action for Improved WASH Services in East and Southern Africa Somalia (2022-2025) – Supported by Danish Peoples Aid: Under this program, UWASNET is focusing on empowering WASH Civil Society Organizations (CSOs) in 14⁹ districts with the skills required for social accountability. The goal is to facilitate effective engagement between CSOs, communities, and service providers, including various levels of government. By administering the WASH Scorecard, the aim is to foster collaboration and achieve a range of positive outcomes.

Promoting Good Governance & Accountability in WASH and Integrated Water Resources Management (IWRM) Delivery in Uganda (2022-2024): This program, aiming at promoting good governance and accountability in WASH and IWRM delivery in Uganda, is another step towards WASH program improvement. By utilizing the WASH Scorecard, the project intends to establish a shared vision of WASH priorities, optimize resource allocation, advocate for increased funding, and pave the way for robust WASH planning.

Civil Society in Uganda Support Program supported by GIZ: Supported by GIZ, this program aligns with the broader mission of empowering CSOs in Uganda. By equipping these organizations with the capacity to effectively administer the WASH Scorecard, the project hopes to drive positive change in WASH services and infrastructure.

Throughout the process, the following significant achievements were recorded:

Inception Meetings and District Engagement: Inception meetings were held across 14 different districts, introducing over 200 district authorities to the WASH Scorecard. The positive response led to the identification of district focal points, streamlining the project's preliminary stages and subsequent engagements.

Training of Local Government Leaders: More than 200 local government leaders received training on the implementation of the WASH Scorecard. Their role in being receptive to CSO-led dialogues, findings, and recommendations was emphasized, aiming to address WASH challenges collaboratively.

Scorecard Administration and Engagement: Eighty CSO representatives were trained to administer the WASH Scorecard. This training culminated in joint administration with Sub County and Parish Chiefs across the 14 districts, reaching villages and towns across different regions of the country.

Key Findings: The administration of the WASH Scorecard yielded insightful findings. Water coverage was generally high but with district variations. Schools enjoyed a coverage of 94.1%, albeit unevenly distributed. However, healthcare facilities (HC III) coverage was just 31.8%, highlighting the need for improvement in accessibility.

This first application of the WASH Scorecard demonstrated disparities in service provision, motivating service users to demand their rights to water and sanitation. Crucially, it facilitated local governments in understanding the true status of WASH on the ground.

Outcomes and Future Steps: The engagement with the WASH Scorecard prompted local governments to acknowledge its accuracy and relevance. Districts responded by developing action plans based on the results. This transparent, data-driven approach has set the foundation for enhanced accountability and targeted improvements in WASH services, bringing Uganda one step closer to its goal of ensuring clean water and sanitation for all.

⁹ Nakaseke, Luwero, Wakiso, Mukono, Nakawa Division, Obongi, Terego, Madi Okollo, Yumbe, Koboko, Mbale, Bukedea, Gulu and Nwoya

As the rollout of the WASH Scorecard continues, UWASNET remains committed to realizing a shared vision of sustainable WASH systems, resource allocation, advocacy, and coordination, making tangible progress towards better WASH outcomes in Uganda.

Case Study 4: Generating New Insights from Existing Data to Improve Access to Basic Water Services in Kabarole, Uganda

IRC WASH Uganda and Bruno Basudde, Kabarole District Local Government.



Kabarole District Officials after the launch of the district WASH data portal. Photo credit: Mary Ayoreka Concepta, IRC Regional WASH Officer

Contributed by Moses Asimwe,

Like those in many other service sectors, the decision-makers in the water, sanitation, and hygiene (WASH) sector experience challenges in using data effectively to devise appropriate strategies to improve service delivery. One of the key hurdles is collecting new and/ or locating existing high-quality data, which can be a daunting task, especially in the face of the meager resources often available for many organizations. If this data can

be found, one then wonders where to look for simple, user-friendly, and cost-effective solutions for data analysis within and beyond the organization level.

District Data Collection and Analysis

With funding from the Conrad N. Hilton Foundation, in August 2022, IRC, in partnership with Kabarole District Local Government (DLG), carried out service level monitoring to establish WASH service level trends with a focus on availability and functionality of WASH facilities, level of water service provision, asset age (repair/maintenance), and user satisfaction using the mWater platform. Later, and of paramount importance to IRC and Kabarole DLG, further data analysis using the [Water Point Data Exchange \(WPdx\)](#) added value by generating action-oriented insights to see the collected data to inform district planning and implementation of program interventions by lower-level local governments (sub-counties). One especially useful analysis was a detailed comparison between the previous service level data (2019) and the most recent dataset (2022) focusing on water service. The datasets from 2019 and 2022 were analyzed both independently and as a harmonized dataset, to reflect the most up-to-date information. There were 45 verified water point matches between the two datasets. Of those 45, 11 changed status between 2019 and 2022, with 9 points being brought to a functional status and 2 becoming non-functional.

Piloting a Private WPdx Pipeline

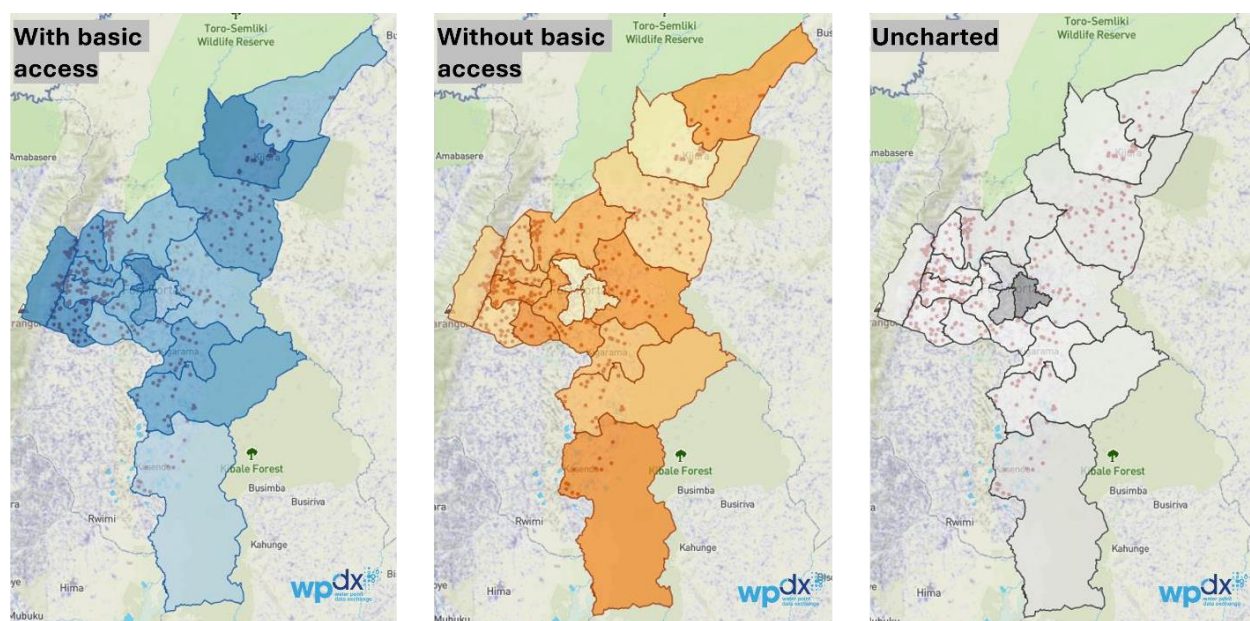
A full analysis was conducted using a pilot private version of WPdx which allowed IRC to select a customized dataset to be analyzed using the [WPdx Decision Support Tools](#). Though recent data had been collected, the district had questions about how to effectively analyze and use the data to inform decisions. WPdx presented a unique opportunity to explore ways to best use the data as it is an open-source platform designed to address such challenges by unlocking the potential of water point data.

Partnering with the WPdx team, the Kabarole data was uploaded and analyzed on a private version of the WPdx platform with minimal additional effort. The WPdx team worked with IRC to connect directly into the Kabarole DLG database ([https:// go.mwater.co/kabarole/mis](https://go.mwater.co/kabarole/mis)) to easily share the dataset with the WPdx platform. The resulting analysis enabled the district to tap into invaluable insights about water point sustainability which are in the process of being integrated into the District WASH Masterplan (2018 – 2030) and the District Improvement Plan (DIP).

The findings from the WPdx tools are supporting the district to make evidence-based decisions to improve basic water service as the district continues to make fundamental strides towards realizing 2030 SDG 6.1 and 6.2 service targets.

Comparison of access by sub-district in Kabarole, Uganda using a customized version of the [WPdx Administrative Region Analysis Tool](#).

In collaboration with the WPdx team, a number of relevant water service analyses were conducted, i.e., a comparison of water point types disaggregated by sub-county/survey year (2019 & 2022), functionality status (and associated functionality changes), population with and without access to basic water service, uncharted population (representing urban areas or such other areas without known service or where data may be missing), and the over-capacity population per water point (i.e., the number of people reliant on the water point for service above the recommended technical capacity). These insights created an opportunity for partners (IRC, Kabarole DLG and WPdx) to identify potential areas for new service locations and/or rehabilitation by identifying locations where populations currently lack access to a service, are reliant on a single water point with no alternatives nearby, and/or are reliant on a water point that is being over-utilized due



to relatively high local populations.

Integrating Insights for Action.

Efforts are ongoing to incorporate the WPdx results into the already established and recently launched district WASH data portal to provide the district water office a way to routinely monitor the ~~had~~ of water service provision and update new water source point information in a timely manner. Partners will use the insights from WPdx to inform the design of more strategic programs to reach the under-served populations within the district with affordable, quality, and sustainable basic water services, including exploring joint resource mobilization efforts to support the same cause.

Case Study 5: Enhancing Sanitation and Waste Management for Refugee and Host Communities: Imvepi Uganda Red Cross

Introduction: The case study focuses on a project undertaken in Imvepi refugee settlement, located in Terego District in West Nile in partnership with the Austrian Red Cross, Netherlands Red Cross, and the Uganda Red Cross Society. The project's primary goal was to construct and manage a human and solid waste management center to serve a population of 200,000 refugees and host communities. Additionally, the project aimed to test and pilot an emergency response unit (ERU) for faecal sludge management (FSM) in the Imvepi faecal sludge treatment plant.

Project Objectives: The overall objective of the Pilot Programming Partnership (PPP) project was to accelerate local action in humanitarian and health crises. The long-term outcome sought was to ensure that communities, national societies, and disaster risk management institutions were better prepared to anticipate, respond to, and recover from evolving and multiple shocks and hazards. The project was designed to achieve several key objectives.

Strengthen URCS for Crisis Response: The project aimed to strengthen the Uganda Red Cross Society (URCS) to respond effectively to various crises and disasters, including sudden-onset, slow-onset, time-bound, and protracted

emergencies. This involved enhancing URCS's capacity to analyze and address the needs of people affected by multiple hazards.

Multi-Hazard District Contingency Plans: Target districts were supported in developing Multi-Hazard District Contingency Plans, which would serve as comprehensive strategies for responding to a wide range of emergencies.

Epidemic Surveillance Capacity: The project intended to strengthen the capacity for epidemic surveillance, which is crucial for early detection and response to health crises.

WASH Facilities: Efforts were made to set up Water, Sanitation, and Hygiene (WASH) facilities to ensure access to clean water and sanitation.

Promote Good Health and Hygiene Practices: The project aimed to promote good health, sanitation, and hygiene practices among the affected communities.

Geographical Coverage: The project focused on the Imvepi refugee settlement, a location characterized by a high population of refugees and host communities.

Summary of Achievements: The project achieved several significant milestones:

- **Construction of Faecal Sludge Treatment Plant:** A low-tech faecal sludge treatment plant was constructed and became operational in February 2022. This plant had the capacity to treat 10 cubic meters of faecal sludge per day. Additionally, an upgrade project was underway, which included the installation of a 2nd sludge drying bed, incinerator, solid segregation yard, and vermin-composting yard. This upgrade aimed to increase the plant's capacity to treat faecal sludge and was expected to be completed by November 15.
- **Testing and Piloting of Emergency Faecal Sludge Management:** The project conducted tests on three different flocculation agents (Chitosan, Hydrated Lime, and M-floc) and identified the optimum dosage for effective faecal sludge management. Furthermore, three desludging machines (Gulper, Pitvac, and Sludge Pump) were tested in various latrines and sludge thickness conditions. The pilot phase for emergency faecal sludge management was scheduled to commence in November 2023.
- **Operation and Maintenance:** Uganda Red Cross continued to ensure the operation and maintenance of the waste management center. This involved weekly monitoring of treatment systems, observation, reporting, and general maintenance tasks such as trimming the grasses.

Challenges encountered during the project

Seasonal Variation: The long dry season in the region during January and February led to challenges. Notably, the papyrus planted on the horizontal flow gravel (HGF) beds started wilting and drying. Additionally, there was a decrease in the volume of incoming faecal sludge to the treatment facility during this period. To address this issue, the project replaced the papyrus with material harvested from KamuKamu landing site in Rhino camp and explored alternative plants such as *Cannas indica* for the HGF beds.

Conclusion:

The Imvepi project serves as an illustrative case study of a comprehensive initiative aimed at improving sanitation and waste management in a refugee settlement and host community context. Despite encountering challenges, the project made substantial progress in constructing a faecal sludge treatment plant, testing emergency faecal sludge management techniques, and ensuring the operation and maintenance of these facilities. These efforts contribute to the overall goal of enhancing preparedness and response capabilities in the face of evolving humanitarian and health crises.



Photo 8.2.3 :Lab Techs taking samples and analyzing in the FSFL

8.2.14 CSO INVESTMENT IN THE NATURAL RESOURCES, ENVIRONMENT, CLIMATE CHANGE, LAND AND WATER MANAGEMENT PROGRAM



1.4 Billion



14

Catchments



369,502

Beneficiaries



1,149,268

Ha. under restoration

8.2.14.1 Investment in IWRM

The NRECCLWM program supports the efficient and effective management and development of natural resources including water, while ensuring protection of environment. 8 CSOs reported interventions in Integrated Water Resources Management (IWRM), with investments totaling UGX 1.4 billion. This was 100% increase from UGX 0.7 billion in FY2021/22.

Series of activities were conducted by (International Water and Sanitation Centre (IRC), Oxfam Novib, Welthungerhilfe, Lutheran World Federation, Water For People, World Vision Uganda, WATESO Water Multipurpose Cooperative Society Limited (Regn# 5929/RCS), JOIN FOR WATER, Joint Effort to Save the Environment, forAfrika International, Community Integrated Development Initiatives, JF Well Works Africa, JF Well Works Africa, forAfrika International) within different catchment areas, including inception meetings, stakeholder engagement sessions, baseline surveys, community action planning, and mobilizing counterpart funding.

In order to implement sub-catchment action plans, the following activities were carried out; purchase of tools and construction of soil and water conservation structures, tree planting, and the establishment of technologies like energy-efficient stoves and rainwater harvesting systems. Additionally, capacity building for community groups and environmental initiatives, such as wetland restoration, peer learning visits, and monitoring, were undertaken.

Construction of solar-powered water supply systems, capacity building for watchdogs, advocacy efforts, and regular committee meetings was done by some CSOs. Furthermore, extensive tree planting campaigns and activities to protect and restore water source catchment areas along with sensitization and dialogues with stakeholders were undertaken.

IRC in collaboration with Albertine Water Management Zone held a key stakeholders' learning event on catchment management. This was part of ongoing efforts to contribute to the implementation of Integrated Water Resources Management. The Country Program supported the AWMZ to implement part of the Mpanga CMP. The AWMZ supported the District Natural resources department to delineate 30Km of the river Mpanga catchment and protection with 400 concrete pillars.

Table 92: Comparison of NRECCLWN PIAP investment requirement and Actual by CSOs for FY 2020/21

Program Area	Budget area	Budget (UGX Bn)
Natural Resources and Environment Climate Change, Land and Water Management	NRECCLWM PIAP extracted budget	2,088
	UWASNET Investment - NRECCLWM	1.4
	Percentage contribution	0.07%

8.2.14.2 Availability of adequate and reliable quality fresh Water Resources for all uses

(i) Water resources management at catchment level

IWRM activities covered 14 sub-catchments with the main focus being lake George catchment area as indicated in Figure 51. Activities included training and mentoring, demonstration of practice, tree planting, establishment of nurseries and woodlots, formation of management structures, natural resource mapping, infrastructure provision, and others like advocacy, gully plugging and regeneration.

Overall, the interventions benefitted **369,502** people and restored **1,149,268** hectares. 12 management activities were for restoration and livelihood enhancement (13) with interventions in key hotspots of riverbanks (7), followed by wetlands (10) and forests (4), and landing sites (2). Others (1) included degraded croplands and water sheds.

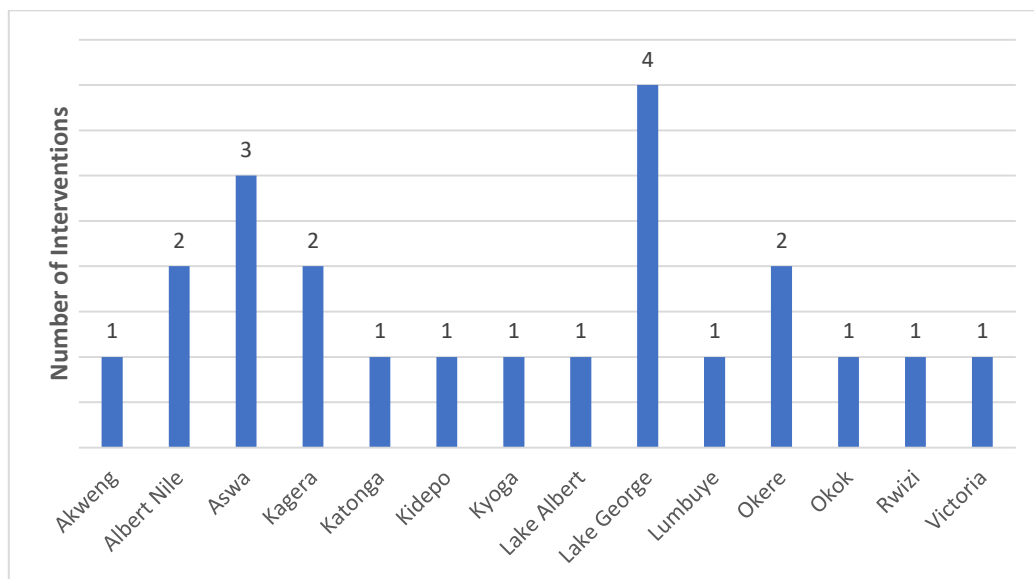


Figure 51: Catchment areas of IWRM activities

8.2.15 AGRO INDUSTRIALISATION PROGRAM

8.2.15.1 Water for Production



0.2

Billion



22

Irrigation Systems



15,630 m³

Storage Capacity



9,987

Beneficiaries

8.2.15.2 Investment in Water for Production

Three CSOs contributed a total of UGX 0.5 billion and carried out four) interventions. One intervention was implemented in each of the five districts of Buhweju, Isingiro, Kazo, Rwampara, Kyankwanzi and Tororo. Table 93 presents water for production interventions by CSOs.

Table 93: CSO water for production interventions

Intervention	Beneficiaries Reached	Female Beneficiaries	No. of irrigation systems
Irrigation systems installation	9,987	4,847	22
Grand Total	9,987		
Estimated Investment (UGX Billions)			0.5

Figure 52 depicts the trend of investment in water for production by CSOs over the past 5 years. It shows a declining investment in Water for Production.

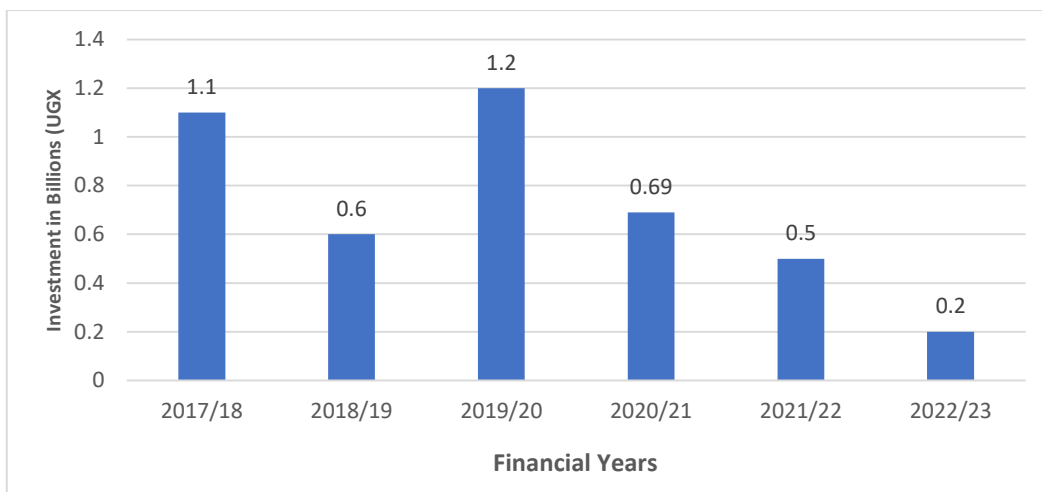


Figure 52: Investment in water for production

8.2.15.3 Water for Production activities

One of the key objectives of the Agro-industrialization programme is to increase agricultural production and productivity. 22 irrigation systems were installed which provided 15,630 m³ of storage capacity covering 183 hectares under irrigation. This was an increase compared to last Financial Year where 21 irrigation systems and 10,190 m³ of storage were executed. This is partly through increasing access and use of water for production. Some NGOs have started engaging in this line of intervention. Interventions in water for production included support to livestock farming, provision of irrigation systems by Afrika International, Community Integrated Development Initiative and Action Against Hunger – USA in Arua, Madi Okollo and Rakai districts.

8.2.16 Conclusion and Recommendations

8.2.16.1 Conclusions

In conclusion, the data analysis for the reporting period highlights a significant shift in the financing landscape for WASH interventions within UWASNET's network. International CSOs emerged as the most substantial contributors, increasing their support to an impressive 80%, signifying a notable rise from the previous year's 64.2%. Conversely, government financing remained at the lowest level, stagnating at 1%, and even declining from the 1.2% recorded in FY 2021/22. A closer examination of CSO investments reveals a strong focus on the HCD program at 98.5%, with minor contributions to NRECCLWM (1.3%) and Agro-Industrialization (Water for Production) at 0.2%. Water supply infrastructure activities continued to dominate the investment landscape, totalling to UGX 54.8 billion (54.8%), reflecting a 37% increase in CSO investment from UGX 78.6 Billion (FY 2021/22) to UGX 107.8 Billion.

The report also underscores the crucial role of CSOs in promoting sanitation, hygiene, and capacity building, with impressive gains in investments across these areas. Furthermore, the initiative to provide handwashing facilities and the increase in research and development funding signify a commitment to improving public health and infrastructure in Uganda.

Lastly, the disbursement of loans by financial institutions has positively impacted 124,725 individuals, with each loan reaching an average of 15.81 people and a total principal loan amount of **UGX 20,818,081,266**. This comprehensive overview demonstrates the evolving dynamics of WASH financing and the growing influence of CSOs in advancing these critical initiatives in the region.

8.2.16.2 Recommendations

- i) Strengthening capacity (systems & skills development) and coordination of all stakeholders in implementation of the O & M framework so that the increase and investment in water supply infrastructure development matches with the O & M capacity and investment to sustain functionality of water points.
- ii) The government needs to devise means to increase the share of domestically-financed budgets is a step towards sustainable financing of the WASH sector and supplementing the dominance of foreign financing which comes mostly as loans and adds to the nation's fiscal burden. Sustainable service

delivery for water and sanitation should rely primarily on domestic public resources, while being supported by CSOs and partners. The Government therefore needs to devise strategies, policies and mechanisms to attract additional private and public finance to the WASH and Environment sub programmes. Coupled with this is the need to devise an innovative and more diversified financing mix that includes not only the Government but the private sector and households

- iii) There are huge urban-rural inequalities in WASH financing and access to services. In order to safeguard lives and livelihoods and ensure no one is left behind, it is important that the Government strengthens and continues to deliberately scales up pro-poor investments in WASH —particularly deliberate spending targeted on the poor and underserved rural and peri-urban households who lack access to improved WASH services.
- iv) There has been limited or unstructured engagement of the private sector to contribute to WASH financing. It is recommended that WASH CSOs support the relevant MDAs to pilot and develop bankable WASH investment projects for the WASH sector in Uganda to lure private investors.
- v) Water is an economic and social good, and to operate and maintain the service requires finances. There is therefore need for Government in partnership with the local governments to set up of a long-term sustainability financial model for the O&M of rural water supply
- vi) It's our call that Government through the Directorate of Extension Services expedites the completion of the irrigation master plan to guide irrigation planning and investment. While Government should consider phased recruitment of more 97 Senior Agricultural Engineers to guide the implementation of water for production interventions
- vii) There is need for a review of the existing policy framework for all Urban authorities (City Councils, Municipal councils, Town Councils) to inform the relevant local level development plans adequately catering for both sewerred and unsewerred sewerage treatment facilities (whether conventional sewerage treatment, stabilization ponds, or DEFAST).
- viii) Over the years a challenge of delayed annual reports submission to UWASNET by network members continue to affect the quality and timely production of the CSOs annual performance report. And therefore, an appeal for members to actively respond to the secretariat's requests within the stipulated timeframe.

CHAPTER 9

CROSS CUTTING ISSUES

9.1 Introduction

Cross-cutting issues are matters that negatively affect the development outcomes if not considered during the development process. The cross-cutting issues considered in this chapter include gender equality and women empowerment initiatives; HIV/AIDS mainstreaming; and Environmental and Social safeguards initiatives amongst others. The report provides the stratus/update of cross-cutting issues implemented in FY 2022/23.

9.2 Gender Equality and Women Empowerment

The Uganda Gender Policy (UGP), 1997 (Revised 2007), mandates all MDAs to promote Gender Equality and Women Empowerment while executing programs and activities. The Ministry of Water and Environment (MWE) developed a Water and Sanitation Gender Strategy in 2003 (revised in 2010 and 2017) and an Environment and Natural Resources Gender Strategy in 2015 to guide GEWE efforts in the sector. The sections below indicate the status of GEWE initiatives in the sector.

9.3 Gender Indicators

9.3.1 Percentage of Water and Sanitation Committees (WSC) with at least one woman holding a key position

The performance indicator for gender mainstreaming in rural water interventions is “Percentage of Water and Sanitation Committees (WSC) with at least one woman holding a key position”. Key positions on WSCs include Chairperson, Vice Chairperson, Secretary and Treasurer. Data from the MWE water supply database as at end of June 2023, indicates that the percentage of WSCs with women holding key positions has improved from 87% as reported last year to 88% this FY.

The figure 53 indicates a steady increase in the number of WSCs with women occupying key positions for the last five years from 85% in FY 2018/19 to 88% in FY 2022/23.

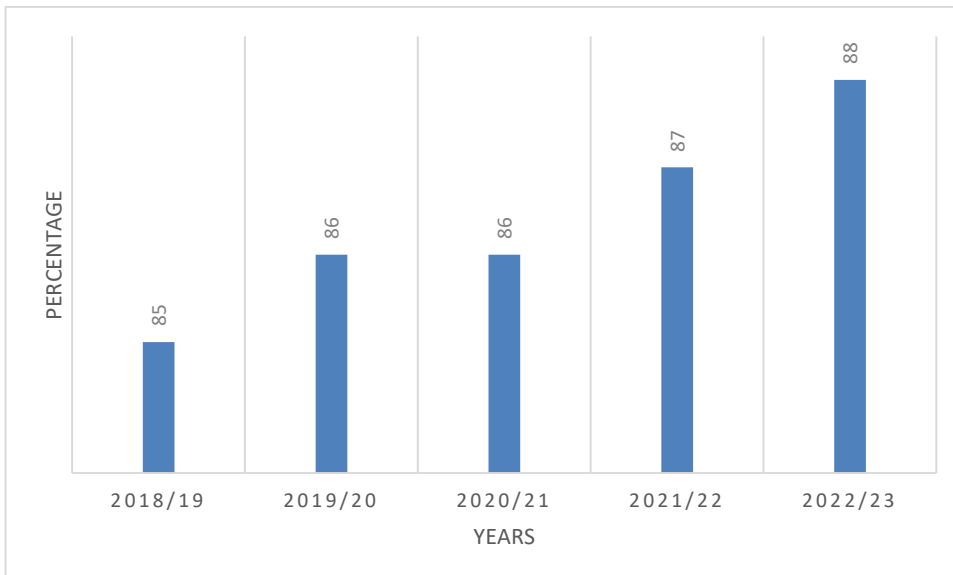


Figure 53: women in key positions

9.3.2 Gender in staff Composition

The National Employment Policy for Uganda (2001), prescribes the collection and dissemination of improved data and statistics on the labour force, disaggregated by sub-sector, and the consideration of women and other disadvantaged groups for employment opportunities if wealth creation and poverty eradication are to be achieved.

Gender Staffing in MWE

MWE Permanent Staff

Data from the human resource division, under the Department of Finance and Administration, indicates that MWE has 437 permanent staff an increment from 411 staff reported last year. A gender analysis of MWE employees indicates an improvement of female representation from 35% reported last year to 38% this FY.

The gender analysis of permanent staff composition for a period of 5 years (2019 to 2023) indicates that the composition of female staff members has not significantly improved over the last five years. The details are indicated in the figure 54 below.

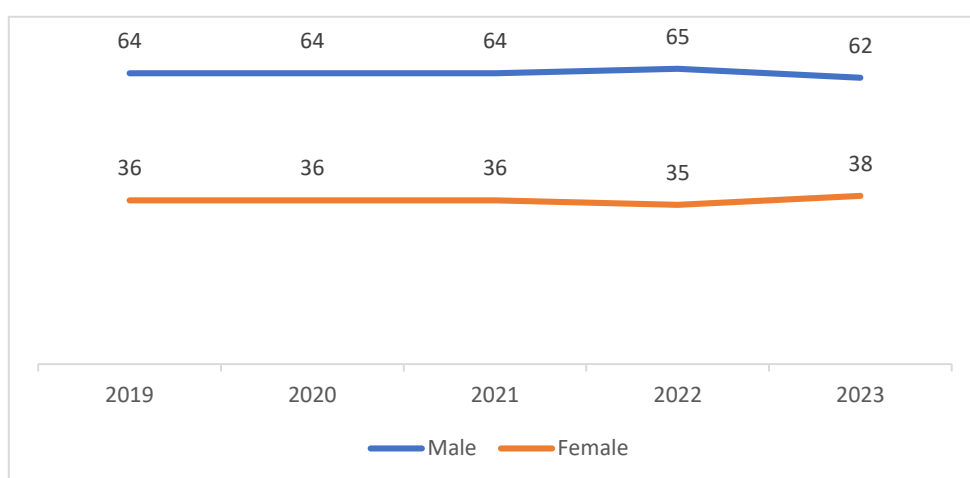


Figure 54: Trend of Permanent Staff gender composition over years

Gender by Management Position in MWE

Further analysis of staffing position by seniority indicates that there are 42 staff members occupying top management positions¹⁰ out of which only 19% are female. This has remained the same as reported last year. For the middle management level¹¹, the ministry has 157 staff members of which 34% are female. The Percentage of female in this category has remained the same as reported last year.

At the operational level, there are 163 staff out of which 46% are female. The gender analysis of the staffing by seniority is indicated in table 94 below.

Table 94: Gender analysis in MWE by seniority

Staff Level	Female		Male	
	No.	%	No.	%
Top Management	8	19	34	81
Middle level Management	54	34	103	66
Operational Level	75	46	88	54
Support Level	33	44	42	56
Total	168		269	

MWE Contract staff

¹⁰ Scale U1

¹¹ Principal and Senior officers, scale U2 and U3

Data from the Human Resource Department indicates that there are 1215 staff employed under contract terms. The analysis of gender composition for contract staff indicates that 29% (358) are female and 71% (857) are male as of 2023. This indicates a 1% decrease in the proportion of females from 30% reported in 2022.

The trend of contract staff composition according to sex, over the last three years indicates that the sector made no improvement in female composition for the last three years. The details are indicated in Figure 55 below.

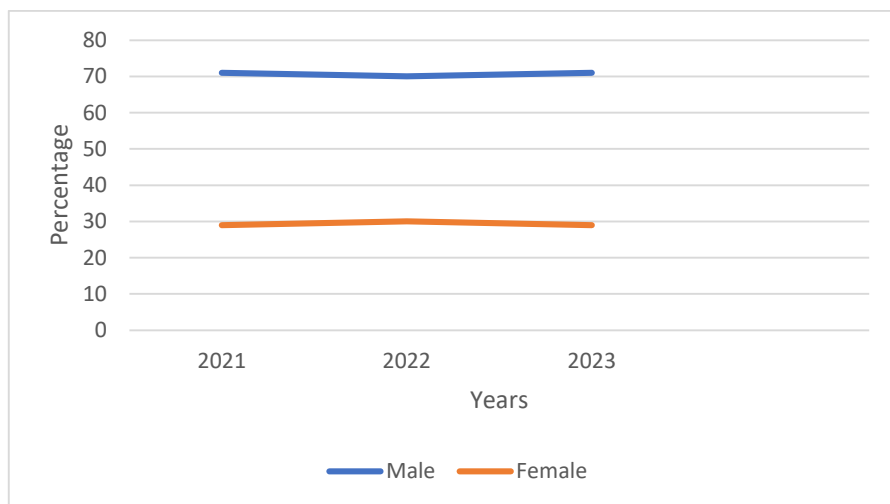


Figure 55: Gender Composition for Contract staff over the years

District Water Office Staffing

Analysis of data from 135 districts indicates that only five districts (Lamwo, Butambala, Katakwi, Manafwa and Kabale) have female District Water Officers. The number of female District Water officers still remains low and has stagnated at 4% for the last two years indicating low women representation for this key position.

The data on MWE established staff, Contract and Local Government staffing, indicates that efforts to improve staff gender parity have not yielded the desired results. This calls for proactive and transformative strategies within the MWE, Ministry of Public Service and the Local Governments if the gender parity within staffing is to be attained.

Gender Staffing in National Water and Sewerage Corporation.

NWSC has undertaken various efforts towards the inclusion of women, which has increased the number of female participants in the sector. The Corporation is an equal opportunities employer, and this is depicted in the growth of female staff at all levels of Management as a result of affirmative actions by management to increase women participation. However, women representation has declined from 33% in FY 2021/22 to 31% in FY 2022/23. The gender analysis of staffing for the last 6 years shows a stagnant trend. See details in the table 95 below.

Table 95: Annual Staff Composition for the FY 2017/18 to 2022/23

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Total Number of Female Staff	1,067	1,200	1,256	1,365	1,457	1,289
Total Number of Staff	3,452	3,778	4,082	4,244	4,467	4,112
% of Female	31%	32%	31%	32%	33%	31%

9.3.3 Gender and equity Responsive Planning and budgeting

In accordance with Article 32(3) of the 1995 Constitution of the Republic of Uganda (as amended), Section 14 and 15 of the Equal Opportunities Commission Act, 2007 and Section 9 (6) (a) and (b) of the Public Finance

Management Act, 2015 (PFMA), the Uganda’s Equal Opportunities Commission (EOC), in collaboration with the Ministry of Finance Planning and Economic Development, undertook an annual assessment of Sector Ministerial Policy statements (MPS’s). The purpose of the assessment was to ensure that Ministries and Agencies prepare MPS’s that are gender and equity compliant.

The assessment exercise was guided by a check list which is in line with the structure of the Ministerial Policy Statements. The sections of focus included; Vote Overview (vote Mission Statement and strategic objectives), Past Performance, Medium Term Plans, Vote Programme performance, plans for the Ensuing Year and Challenges to addressing Gender and Equity Issues.

A report from EOC for the MPS’s of FY 2022/23 for the Ministry and Agencies indicates that the Ministry of Water and Environment, scored 82%, which is above the minimum accepted score of 60%. The above score indicates the Ministry commitment to ensuring social and geographical inclusion.

9.3.4 Economic Empowerment and Initiatives to support the poor and disadvantaged

Article 32 (1) of the 1995 Constitution of the Republic Uganda provides that the State shall take affirmative action in favor of groups marginalized on the basis of gender, age, disability or any other reason created by history, tradition or custom, for the purpose of redressing imbalances which exist against them. Relatedly the Uganda Gender policy (2007) prescribes affirmative action measures in order to reduce historical and traditional imbalances within the community. During the reporting period, the Ministry undertook a number of economic empowerment initiatives to support the poor and disadvantaged groups under the following projects.

Economic Empowerment and Skills Development of Women/ Youth groups

The Ministry with support from the African Development Bank under the Strategic Towns Water Supply and Sanitation Project (STWSSP) has supported 20 women and youth groups in production of energy saving stoves, briquettes and soap products. The purpose of this initiative is to create employment opportunities, boost income, improve health and hygiene in homesteads reduce cost of fuel and to contribute to mitigation efforts for human induced climate change.

The energy saving stoves products include lorena stoves, traditional stoves, household energy saving stoves, and institutional stoves. The soap products include liquid soap, Jez, bar soap, shampoo and spirit. The groups have gained practical skills in the making of the above products, marketing and financial skills in addition to acquiring startup capital in the form of materials and equipment. A total of 858 women and youth have been trained with 607 females and 252 males. Table 96 provides details of women groups trained in the 10 districts.

Table 96: Women/youth Groups support

Town	Group Name	Category	Business category	Sex		Total
				M	F	
Bundibugyo	Kakindo Women’s Group	Women	Soap	14	28	42
	Kisenyi Youth Group	Youth	Stoves	6	48	54
Katooke	Mukore Kwekambe Women’s Group	Women	Soap	10	29	39
	Nyabihoma Kakuba Kweyimukya Youth Group	Youth	Stoves	21	23	43
Kyenjonjo	Kikwete United Youth Group	Youth	Stoves	12	23	35
	Women Of Destiny Group	Women	Soap	7	37	44
Dokolo	Acam Cutu Women’s Group	Women	Soap	11	29	40
	Youth Action on Environmental	Youth	Stoves	24	30	54

Town	Group Name	Category	Business category	Sex		Total
				M	F	
	Protection (YAEP)					
Kapchorwa	Chelboi Women Saving Group	Women	Soap	5	28	33
	Environmental Conservation Advocacy Uganda Youth Group	Youth	Stoves	24	16	40
Nakasongola	Kansirye Tukolelewamu Youth Development Group	Youth	Stoves	13	32	45
	Mukisa Women's Group	Women	Soap	1	44	45
Kayunga	Step-By Step Women's Group	Women	Stoves	10	30	40
	Success Development Group	Youth	Soap	3	40	43
Busana	Bugaddu –A- Youth Association	Youth	Stoves	38	11	49
	Kirikumuno- Kayonjo Women's Group	Women	Soap	9	34	43
Kamuli	Rise and Shine Women's Group	Women	Soap	1	45	46
	Nabikamba Youth Project	Youth	Energy	20	14	34
Buikwe	Buikwe Youth Catering Services	Youth	Stoves	17	18	35
	Abakolera Awamu Development Group	Women	Soap	6	48	54
Total				252	607	858

Table 97: Income Generating activities in the Awoja Catchment under Kyoga Water Management Zone.

In the Awoja catchment, below are the income generating activities beneficiary communities were trained and skilled in. This was aimed at providing alternative livelihoods to beneficiaries especially those in the wetlands and close to the river banks so as to improve their levels of income.

Table 97: Income Generating Activities in Awoja Catchment

Income Generating Activities	Type of Support/inputs	District	Target Beneficiary groups	Status	Funding
Production of Improved energy saving cooking stoves. (rocket Lorena & Fire shielded)	<ul style="list-style-type: none"> • Training in production, business planning and marketing of cook stoves. • Financial support • Tools (moulds, hoes, wheelbarrows, tape measure and 	Serere, Ngora, Kween, Kumi, Nakapiripirit & Amudat	6 women Groups (Ajokokipi Women Group, Amani Women Group, Amagoro Women's Group, Asianut Tididiek Women Group, Kasko cookstoves Women's Group and Aboloboloto Women Group)	Ongoing - 4,470 stoves produced	GOU/EURECCCA Project
Poultry, animal trade, and goat/sheep rearing	<ul style="list-style-type: none"> • Formation of a water and environment cooperative society (training & Sensitization) • Financial support towards the revolving fund 	Kween	Kiriki Water and Environment Cooperative Society	Pending disbursement of revolving fund	GOU/EURECCCA Project
Poultry, animal trade, and goat/sheep rearing	<ul style="list-style-type: none"> • Formation of a water and environment cooperative society (training & Sensitization) • Financial support towards the revolving fund 	Kween	Kere Water and Environment Cooperative Society	Pending disbursement of revolving fund	GOU/EURECCCA Project
Dairy farming and Fish farming	<ul style="list-style-type: none"> • Formation of a water and environment cooperative society (training & Sensitization) • Financial support towards the revolving fund 	Katakwi	Kapujan Water and Environment Cooperative Society	Pending disbursement of revolving fund	GOU/EURECCCA Project
Poultry (turkey rearing) and Sheep/goat rearing	<ul style="list-style-type: none"> • Formation of a water and environment cooperative society (training & Sensitization) • Financial support towards the revolving fund 	Ngora	Morukakise Water and Environment Cooperative Society	Pending disbursement of revolving fund	GOU/EURECCCA Project
Apiary, piggery and fish farming	<ul style="list-style-type: none"> • Formation of a water and environment cooperative society (training & Sensitization) • Financial support towards the revolving fund 	Serere	Kyere Water and Environment Cooperative Society	Preliminary stage	GOU/EURECCCA Project

9.3.5 HIV/ AIDS Mainstreaming

International Candle Light Memorial Day

International Candle Light Memorial Day was organized under the theme “ Ending AIDS by 2030: Communities Leading in HIV Prevention and Care”. This theme augments the call to address factors that impede access of HIV services among the communities, while equipping communities with messages to prevent new HIV infections and stop stigma and discrimination towards People Living with HIV. This contributes towards the ultimate goal of ending AIDS as a public health threat in Uganda by 2030. The national event was held on 19th May 2023 at Kitante Hill School where the Ministry was represented. MWE celebrated the event on the 4th of August 2023 at the Ministry Headquarters Luzira and the event was aimed at increasing knowledge and awareness about the latest information on HIV and AIDS as well as Tuberculosis for the staff.

Trainings and Sensitization Activities

HIV/AIDs sensitization activities are undertaken as part of the social safeguards requirement to ensure that beneficiary communities, contractors and other stakeholders engaged on a project have awareness information on HIV/AIDs. This is aimed at providing information on prevention and treatment measures and the effects of the disease like poverty and work absenteeism. As such, the following sensitization trainings were conducted.

Table 98: Training and Sensitization campaigns for Small town water projects

	Location	Target Population	Number of people trained	Purpose of Training
1	Buikwe district (Buikwe Town Council, Lugasa Trading Centre, Kateete trading centre, Kiyindi Town Council)	Beneficiary communities, Contractors, Construction workers.	328	Sensitize stakeholders on HIV/AIDs prevention, use of Information, Education and Communication materials and access to health services
2	MWE National Water Laboratory Construction site Entebbe	Site construction workers	50	Conducted by the contractor as part of the compliance requirements for implementation of social safeguards at the construction site

Voluntary Counselling and Testing

In line with the sector HIV/AIDS strategy the ministry conducted Voluntary HIV counselling and testing for 60 people (43 males and 17 female) in Malongwe village, Buikwe Sub county and Katete village in Kiyindi Town Council. These activities were undertaken as part of community engagement activities during the development of new water supply and sanitation systems within the district. HIV positive community members were referred to established HIV/AIDS care institutions for further management.

9.3.6 Environmental and Social Safeguards

The national policy direction is that all development projects which may pose negative impacts to the environment and the society have modalities for addressing or mitigating them. In order to minimize Environmental and Social Risks and improve overall project performance, the MWE, is making effort aimed at ensuring that safeguard aspects are systematically and consistently considered from concept design, bidding, contracting and implementation of projects. For FY 2022/23, a number of safeguard activities were implemented under the Integrated Water Management and Development Project (IWMDP) as indicated below.

Preparation of Environmental and Social Instruments

The following section provides information on the Environmental and Social Instruments prepared under the IWMDP including Environmental and Social Impacts Assessment (ESIA), Resettlement Action Plans (RAP) and Source Protection Plans (SPPs).

Sub Component 1.1a: Water Supply and Sanitation in Small Towns

Out of seven sub-projects under this sub-component, six completed the Environment and Social Impact Assessments (ESIAs), the Resettlement Action Plans (RAPs) and Source Protection Plans (SPPs) reports. These sub-projects include; Busia Water Supply and Sanitation Project, Kumi - Ngora Sludge Treatment Plant, Iganga- Kaliro - Namungalwe Water Supply and Sanitation Project, Koboko Faecal Sludge Treatment Plant, Rukungiri Faecal Sludge Treatment Plant and Mbale cluster Water Supply and Sanitation Project (Butaleja, Buswolwe, Budaka, Kadama, Tirinyi, Kibuku).

Sub Component 1.1b: Water Supply and Sanitation in Rural Growth Centres (RGCs)

There are 25 RGCs and 2 large Water Supply and Sanitation Schemes planned subprojects under this component. The ESIA, RAPs and SPPs for the following sub-projects were completed;

- a) Five (5) Large Solar Powered Piped Water Supply Systems and Sanitation Facilities in Central Uganda (Bugomolwa and Kikonge-Nakasero RGCs in Kyankwanzi District, Lubaali RGC in Kasanda District and Kikooge RGC in Nakasongola District).
- b) Five (5) Large Solar Powered Piped Water Supply Systems and Sanitation Facilities for 5 RGCs in Eastern Uganda (Igwaya and Kidera in Buyende District, Bukizibu – Bumwena in Mayuge District, Lugala in Namayingo District, and Kitenga in Kaliro District).
- c) Six (6) Large Solar Powered Piped Water Supply Systems and Sanitation Facilities for 6 RGCs in Western Uganda (Bugwara and Kabamba in Kagadi District, Kikoora and Mwitazinge in Kakumiro District, Kasese and Lwentulege in Rakai District).
- d) Bitsya Water Supply System and Sanitation Facilities in Buhweju District.
- e) Nyamugasani Water Supply System and Sanitation Facilities in Kasese District.
- f) Four (4) RGCs for Busoga Lot (Nango, Bulange, Bubugo/ Itanda and Kagumba).

Sub Component 1.2: Support to Districts Hosting Refugees

The ESIA, RAP and SPPs for 4 Sub-projects were completed. These include solar water systems and sanitation facilities in refugee settlements in Kiryandongo district (Mutunda, Nyakabale & Gaspa RGCs) and Ala - Ora and Enyau.

Component 2: Water Supply and Sanitation to Large Towns and District Hosting Refugees (NWSC)

There are six sub-projects under this sub-component. All the sub-projects completed the ESIA, RAP and SPPs. These sub-projects include the following;

- i. Karuma - Gulu Water Supply Project
- ii. Mbale Water Supply and Sanitation System, and sanitation facilities
- iii. Adjumani II - Pakele Water Supply and Sanitation Project was completed and works commenced
- iv. Implementation of Full-Scale Source Protection Measures in Arua - Lot 1, Gulu - Lot 2 and Mbale
- v. Implementation of Full-scale source protection measures for Bushenyi

Component 3: Safeguard Instruments for Water Resources Management

The component completed the Environment and Social Management Plans (ESMP) Project Brief for Emergence works for Nyamwamba in Kasese. In addition, six ESMPs for the priority micro-catchment management measures are being finalized. The micro-catchments include Nyagak, Odruto, Injudi-Amua, Enyau, Mutunda and Nyimur.

Works Contractors' compliance to Environment and Social Safeguards

Busia WSS and Kumi-Ngora Sanitation facilities contract: The MWE carried out field monitoring of implementation of the environment and social safeguards for Busia WSS, and Kumi-Ngora-Nyero sanitation facilities that were contracted to M/s Zhongao Overseas. The compliance to ESS aspects has generally improved arising out of the various field support from MWE teams and Local Governments. The contractor

has a dedicated safeguards staff (Environmentalist, Sociologist and Health and Safety Officer) and put in place the safeguards implementation arrangements including, Contractors Environment and Social Management Plan (CESMP), Worker's Compensation Policy, hazardous waste handling MoU with NEMA certified Service providers, MoU for medical referral and Ambulance services, certificate of operating a First Aid Dispensary/Clinic, all risks Insurance Policy, waste management plans, community engagement plans, grievance redress systems for workers and communities among others) on active sites to ensure effective management of environmental, social, health and safety risks.

Namasale WSS and Koboko Sanitation facilities contract: There are two contractors for the Namasale and Koboko works whose sites were handed-over in June 2023. The Contractors have been oriented in the pre-construction requirements for safeguards and are in the process of fulfilling the requirements during the mobilization phases before commencement of works.

Under Sub-components 1.1 and 1.2, there are two contractors that have commenced works. These include Vambeco Enterprises Limited for Bitysa WSS, and Summit Projekt Limited for Kryandongo RGCs. The contractors have been oriented by MWE on the E&S requirements and have embarked on fulfilling these requirements in accordance with the approved checklists in accordance with the project implementation manual. In addition, they have both developed their CESMPs.

Under component 2, the active site has been Karuma-Gulu WSS. The contractors' compliance to the approved CESMPs has been satisfactory. Among the various good practices include effective Health and safety systems including training of workers in the health and safety requirements, provision of appropriate Personal Protection Equipment (PPEs), signed Memorandum of Understanding with St Phillip Health Centre and Gulu Referral Hospital for medical referrals and ambulance services, monthly HIV/AIDS sensitizations and testing for workers, provision of condoms, and establishment of an effective Grievance Redress Mechanism (GRM) system among others.

Under component 3 (i.e. Water Resources Management), safeguards monitoring for the on-going emergency works in Kasese is being undertaken in collaboration with Kasese District Local Government. In addition, MWE has undertaken reviews and trainings of the catchment management stakeholders in integrating safeguards requirements including gender and inclusiveness, child protection, grievance redress, environmental management and sustainability.

9.3.7 Safeguards Monitoring and Capacity Building

MWE with support from the Project Support Team (PST) under IWMDP carried out the following key activities: -

- a) Training of the Northern Region team in Environment and Social Safeguards under IWMDP in preparation for the works expected to commence in the Refugee Host Communities.
- b) Updated the Project Implementation Manual
- c) Developed E&S Monitoring and reporting tools for IWMDP and these have been rolled out across components
- d) Disclosed all the approved ESIA's on MWE website
- e) Participated in the monthly site meetings for Busia and Kumi-Ngora- Nyero
- f) Trained of contractors' key staff in E&S requirements for Bitsya and Kiryandongo WSSPs.
- g) Training of Lwakhakha Catchment Management Committees in E&S safeguards in Mbale
- h) Organized monthly coordination meetings for safeguards implementation across the components

9.3.8 Pro Poor Strategies

National Water and Sewerage Corporation- Large Towns

NWSC prioritises services to the poor, and has undertaken several pro-poor initiatives over the past five (5) years, with the objective of improving the lives of the people living in poor urban settlements. Some of the key initiatives include;

- i. Reduction of the pro-poor tariff from Ushs.38 per 20-litre jerry can to Ushs.25 (VAT Inclusive).
- ii. Construction of Public Stand Posts (PSPs) through the 100% Service Coverage Area Performance (SCAP 100) Project with an affordable tariff of UShs.25 per 20-litre jerry can. The Corporation has constructed 17,255 new PSPs since the project inception in 2017.
- iii. Installation of pre-paid meters totalling 1,665 pre-paid meters with the aim of eliminating intermediaries who tend to make the service so costly to the poor.

During the Financial Year 2022/23, the Corporation installed **2,808** new PSPs. This denotes an achievement of **78%** of the Human Capital Development Project (HCDP) target of **3,600 PSPs** for the FY 2022/23.

The total Number of PSPs as at June 2023 stood at **29,177** comprising **24,604 (84%)** active PSPs and **4,573 (16%)** inactive (See table 99 for details).

Table 99: Annual Trend of PSPs/Kiosks for the Period 2017/18 - 2022/23

Indicator	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
New PSPs/Kiosks	3,342	3,550	4,429	3,793	2,141	2,808
Total PSPs/Kiosks	12,305	17,186	21,615	25,393	28,858	29,177
Active PSPs	83%	88%	88%	85%	82%	84%

UWSSD- Small Towns

Construction of Pro-poor public stand posts in Small Towns was targeted at 1,905 PSPs in small Towns. A total of 4,641No. yard tap connections and 148No. Public / institutional stand Posts were constructed in the towns of Kayunga-Busana, Nakasongola, Kyenjojo-Katooke, Kagadi, Odramacaku, Atiak, Okokoro, Bibia/Elegu during the reporting Period. The annual target was exceeded by 243% performance.

9.3.9 Challenges for mainstreaming cross- cutting issues

- i) Limited data on vulnerable and marginalized groups including elderly, disabled, children and youth, who are usually most affected by inadequate service provision.
- ii) Limited funding to support Gender, HIV/AIDS mainstreaming and Environmental and social Safeguards related activities.

9.4 MANAGEMENT INFORMATION SYSTEM PERFORMANCE

9.4.1 Data update on water source per village

In line with the President's directive of one safe and clean water source per village, the MWE, through the Department of Water and Environment Sector Liaison, embarked on an exercise of establishing villages without a safe and clean water source. The exercise involved identifying existing water sources across the country that are not "officially known" mainly due to poor reporting by the stakeholders and therefore not included in the computation of the sector indicators, identifying villages without a water source and aligning them to the new administrative units provided by Ministry of Local Government.

The exercise was conducted in a total of 40 districts from the West Nile Region, Acholi sub-region, Lango Sub-Region, and part of the Teso Sub-Region (**Details of the districts are shown in Annex 6B**)

Key findings

- a. A number of the new administrative units in the District Local Government were missing from the list provided to MWE by the Ministry of Local Government.
- b. Some water sources are not aligned to any village.
- c. Increased number of Water Sources recommended for decommissioning (6340 water sources).
- d. Some of the DWOs were questioning the accuracy of the data contained in the WSDB.
- e. Limited prioritization of the need for regular updates of water source data.
- f. Limited use of the WSDB and hence no appreciation of its benefits and requirements.
- g. The number of new DWOs has increased.
- h. Reporting Requirements of the MIS/WSDB are not emphasized. For instance, Some NGOs are not reporting their interventions to DWOs.
- i. Centralized Data Entry.
- j. Population Data at the District is obtained from UBOS statistics, but the Administrative Units are from both UBOS and DLG.

Challenges

- a) Need for capacity building for the new district water officers and their extension workers on reporting sector requirements.
- b) DWO is unable to collect data from the water source in areas gazette under NWSC.
- c) The source per Village indicator in the WSDB does not include rural areas under NWSC.
- d) During the exercise, it was noted that a number of point water sources were missing in the Water Supply Database.

Recommendations

- a) There is a need for a National Water Atlas update exercise since the last update was done in 2016.
- b) Uniform Reporting Framework between MWE and NWSC.
- c) Annual E-Data management and Reporting Workshops for both Regions and DLGs.
- d) Decentralize Data Entry.
- e) All boreholes constructed publicly or privately should have a form 1 filled for as long as they serve, more than one house household.
- f) A motorized borehole with storage, means of generation, and at least a tap should be treated as a **MINI-PIPED WATER SYSTEM**. Therefore, existing boreholes should immediately be updated via Form 2. Among others

Next Step

Carry out the exercise in the remaining districts in the country and update the Water Atlas.

9.4.2 Other MIS Achievements

- (a) Completion of the Information System for monitoring SDG 6.1 and 6.2. supported by UNICEF. This modern online system, which can be accessed via the URL www.wash.go.ug, is proceeding to the pilot stage following the completion of the dissemination of the prototype in all the districts.
- (b) Completion of the water and sanitation atlas for eight districts of Kyenjojo, Nakasongola, Kayunga, Kamuli, Kapchworwa, Dokolo, Bundibugyo, and Buikwe. The Atlas, which contains mapped updated data on all water sources and sanitation facilities in the 8 districts, is complete and due for dissemination. It was supported by the African Development Bank (ADB) under the Strategic Towns Water Supply and Sanitation Project (STWSSP).
- (c) Partnered with other players in the water sector to carry out mapping of water sources and/or sanitation facilities in districts of their choice. These include (i) mWater/ Red Rhino International has mapped all water sources in Lira, Lamwo, Luwero, Hoima, and Sembabule, including the gathering of assets data, and (ii) The Water Trust to mapped all water sources and sanitation facilities in Isingiro district. All these districts have been mapped fully, and their data is up-to-date.
- (d) Developing of the Water and Environment Management Information System (WEMIS). The system is designed to support MWE decision-making with specific data and information on water, sanitation, forestry and environment support up to the parish level. EMIS is being developed to upgrade and/or replace the Rural Water Database (RUWAS), the Water Supply Database (WSDB), and the Water for Production Database, as well as establish a new database for environment support and improve the forestry database. The system development is being supported by the World Bank under the UGIFT Programme.

CHAPTER 10

SUSTAINABLE DEVELOPMENT GOAL (SDG 6) PROGRESS

10.1 Introductions

SDG 6 focuses on ensuring the availability and sustainable management of water and sanitation for all by 2030. It goes beyond focusing on drinking water and sanitation to include the entire water cycle and Sanitation value chain, with emphasis on issues such as the management of water, faecal sludge, wastewater, and ecosystem resources.

To effectively monitor the achievements of the SDG 6 targets, there is a need for the capacity to collect and generate credible data and information to underpin sector advocacy, stimulate political commitment, inform decision-making, and trigger investment toward optimum health, environment, and economic gains. Making this a reality has been the motivating force for the composition of a task team for each of the SDG 6 Indicators. The Task teams worked tirelessly to ensure that, as a sector, we build our capacity and be able to effectively monitor the progressive realization of the ambitious goal of ensuring the availability and sustainable management of water and sanitation for all by 2030. Since water is central in the attainment of inclusive growth and sustainable industrialization, job and wealth creation priority has been given to monitoring the achievement of set targets as we head to 2030.

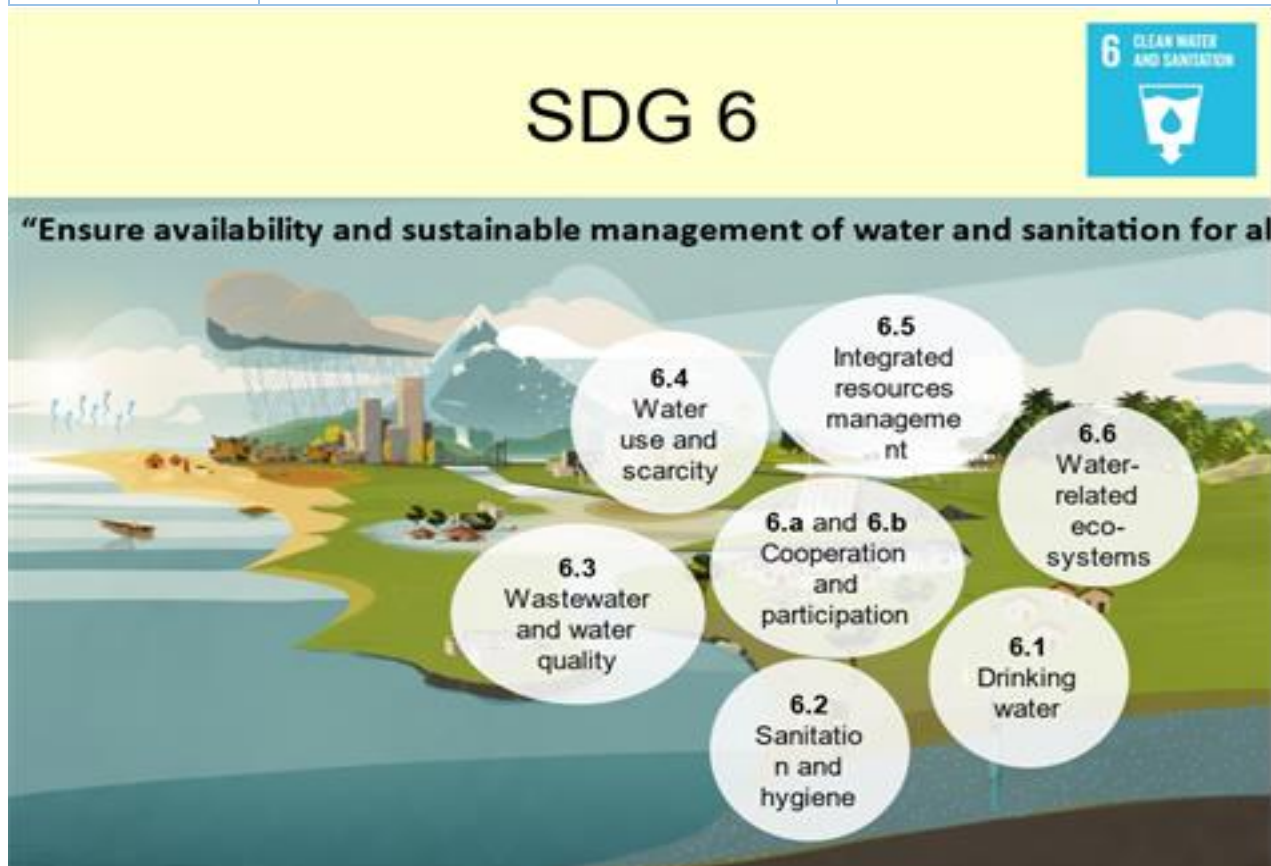
10.2 Overview of SDG 6 goal, targets and indicators

The SDGs have a dedicated goal on water and sanitation, which states: Ensure availability and sustainable management of water and sanitation for all. This goal goes beyond the Millennium Development Goals (MDGs) focus on drinking water and sanitation to cover the entire water cycle, including the management of water, wastewater, and ecosystem resources. Since water is at the core of sustainable development, SDG 6 has strong linkages to all of the other SDGs. Meeting SDG 6 ensures the achievement of the 2030 Agenda. This goal is expanded into eight targets and their indicators, as shown in the table 100 below:

Table 100: SDG 6 Targets and Indicators

Focus	Target	Indicator
6. Cooperation and participation	By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling, and reuse technologies.”	Water- and sanitation-related official development assistance that is part of a government-coordinated spending plan 6.b Cooperation and Support and strengthen the participation of local communities in improving water and sanitation.
6.b Cooperation and Support	By 2030, Support and strengthen the participation of local communities in improving water and sanitation	Proportion of local administrative units with established and operational participation management policies and procedures for participation of local communities in water and sanitation management
6.1 Water supply	By 2030, achieve universal and equitable access to safe and affordable drinking water for all.	Proportion of the population using safely managed drinking water services
6.2 Sanitation and Hygiene	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.	6.2.1 Proportion of population with Safely Managed Sanitation services
6.3 Wastewater and water quality	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing	6.3.1 Proportion of Wastewater Safely Treated

Focus	Target	Indicator
	release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.”	6.3.2 Proportion of bodies of water with good ambient water quality
6.4 Water use and scarcity	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.	6.4.2 Level of Water Stress
		6.4.1 Change in Water Use Efficiency over time
6.5 Integrated Water Resources Management, including transboundary water resources management	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation, as appropriate.	6.5.1 ‘Implement integrated water resources management at all levels.’
		6.5.2 ‘Proportion of transboundary basin area with an operational arrangement for water cooperation.’
6.6 Water-related eco-systems	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes.”	6.6.1 Change in the extent of water-related ecosystems over time



10.3 Process of Implementation of SDG 6

The Ministry of Water and Environment has the overall responsibility of developing, managing, and regulating Water and Environment resources in Uganda. In order to fulfill its function, the ministry has established a water and environment sector coordination framework that enables a wide range of actors to participate in the sector activities. The implementation of SDG 6 is thus through the existing sector coordination framework. Efforts have therefore been made to institutionalize SDG 6 in the different sector policies and practices as follows;

- (i) Updating and revision of the National Water Policy: the National Water Policy adopted in 1999 has been revised and updated to take into consideration new priorities, challenges, and international developments, including SDGs. The revised policy fully recognizes the interlinkages between SDG 6 and other SDGs and the role water resources play in the socioeconomic development of the country.
- (ii) Revision of the Water and Environment Sector Performance Monitoring Framework Uganda developed a Sector Performance Monitoring Framework in the late 1990s. This framework is based on 11 Golden Indicators (water and sanitation) and 10 Platinum Indicators (environment and natural resources). With the adoption of SDG 6 and its indicators and monitoring methodologies, the sector performance monitoring framework was revised to allow for the integration of the relevant SDG indicators. In the current framework, the SDG 6 Indicator monitoring is fully integrated into national planning, budgeting monitoring, and reporting processes and existing institutional frameworks at various levels.
- (iii) Annual Sector Performance Reporting Uganda has been producing annual Sector Performance Reports (SPR) since 2007. The 2018 annual Sector Performance established baseline and progress figures for the various indicators in line with the revised performance monitoring framework that includes SDG 6 indicators.
- (iv) Development of 2030 Strategic Sector Investment Plan Uganda reviewed and updated the Sector Investment Plan (SIP) 15 in 2017 based on the 24 sector indicators. It's estimated that UGX 5.10 trillion is required annually and will increase to 10 trillion by 2030 if the sector is to realize its set targets measured by these indicators.
- (v) Implementation of catchment-based integrated water resources management Catchment-based integrated water resources management is a holistic approach to planning and implementation following a catchment. It has been found to be a vehicle for strengthening inter-linkages between SDG6 and other water-related SDGs.
- (vi) Developing capacity for SDG 6 implementation. In 2018, the MWE launched the Water Resources Institute (WRI) to provide targeted capacity development through applied training, applied research, dialogue, and outreach. Since its inauguration, the WRI has offered tailor-made training to increase understanding among stakeholders on the meaning of the various SDG 6 indicators and targets the capacity to collect, interpret, and report on the monitoring data.
- (vii) Holding of annual Water and Environment Week Holding of annual Uganda Water and Environment Week (UWEWK) started in 2018, with the aim of providing an interface for sector actors and other stakeholders to exchange knowledge and experiences on the sustainable management and development of water and environment resources. So far, it has been used to provide an opportunity for discussing SDG 6 and its interlinkages with other SDGs.

10.4 Progress towards SDG 6 Targets

The progress toward the SDG 6 targets is summarized in the table 101 below.

Table 101: Progress towards SDG 6 targets

Focus	Target	Indicator	Performance Update
6.1 Water supply	By 2030, achieve universal and equitable access to safe and affordable drinking water for all.	Proportion of the population using safely managed drinking water services	Urban 72.8% Rural 67%
6.2 Sanitation and Hygiene	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.	6.2.1 Proportion of population with Safely Managed Sanitation services	Urban 41% Rural 8.1%
6.3 Wastewater and water quality	By 2030, improve water quality by reducing pollution, eliminating dumping	6.3.1 Proportion of Wastewater Safely Treated	4%

Focus	Target	Indicator	Performance Update
	and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.”	6.3.2 Proportion of bodies of water with good ambient water quality	51%
6.4 Water use and scarcity	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.	6.4.2 Level of Water Stress	1.721%
		6.4.1 Change in Water Use Efficiency over time	\$39
6.5 Integrated Water Resources Management, including transboundary water resources management	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation, as appropriate.	6.5.1 Degree of implementation of Integrated Water Resources management.	62%
		6.5.2 ‘Proportion of transboundary basin area with an operational arrangement for water cooperation.’	84%
6.6 Water-related eco-systems	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes.”	6.6.1 Change in the extent of water-related ecosystems over time	17%
6. Cooperation and participation	By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.”	Water- and sanitation-related official development assistance that is part of a government-coordinated spending plan.	UGX310.26bn
6.b Cooperation and Support	By 2030, Support and strengthen the participation of local communities in improving water and sanitation	Proportion of local administrative units with established and operational participation management policies and procedures for participation of local communities in water and sanitation management	90%

Water and sanitation at the core of sustainable development



10.5 United Nations 2023 Water Conference, High-Level Political Forum, and the SDG Summit

The year 2023 was characterized by key global events related to water, namely the United Nations 2023 Water Conference in March 2023, the High-Level Political Forum in July 2023, and the Sustainable Development Goals Summit in September 2023. Key highlights of each of the events are as follows:

a) United Nations 2023 Water Conference in March 2023

One of these water conferences was the United Nations 2023 Water Conference held in New York from 22 to 24 March 2023. This conference was the second-ever water conference coming 46 years since the last one was held in 1977. The conference was used as a mid-term review of the Implementation of the objectives of the International Decade for Action, 'Water for Sustainable Development', 2018–2028". The conference focused on the sustainable development and integrated management of water resources for the achievement of social, economic, and environmental objectives, the implementation and promotion of related programs and projects, as well as on the furtherance of cooperation and partnerships at all levels.

Participating in the UN 2023 water conference complimented Uganda's aspirations of accelerating water access, strengthening water resources management, and ensuring water equity as enshrined in the Uganda Vision 2040, The Third National Development Plan (NDP III), and Natural Resources Programme Implementation Action Plan (PIAPs), and the Updated Nationally Determined Contributions. The Ministry of Water and Environment spearheaded the organization of Uganda's participation in the Conference, with a total of 32 government officials participating in the conference, including Ministers, Members of Parliament, Permanent Secretaries, senior government officials, civil society organizations, and other water-related organizations.

The conference featured five interactive dialogues that were held in parallel with the plenary meetings and side events. These were centered around the themes of Water for Health, Water for Sustainable Development, Water for Climate, Resilience and Environment, Water for Cooperation, and Water Action Decade.

The UN Water Conference provided an opportunity for the UN Member states and the international community to review progress made in the achievement of SDG6 targets and indicators. Uganda presented its report on the progress made in achieving SDG6 and highlighted the challenges faced and what needs to be done to accelerate progress. Each country was expected to make a commitment to accelerate progress, and these were presented under the Water Action Agenda, which was the key outcome of the conference. The commitments had to indicate what needs to be scaled up or replicated, what needs to be discontinued or changed, the innovations that need to be improved, and fund and what merits funding.

The commitments made by Uganda are:

1. Accelerate inclusive access to safely managed water and sanitation services in both rural and urban areas in order to reach out to the underserved population
2. Ensure availability of adequate and good quality water for domestic use and for productive purposes through transformational initiatives with a focus on marginalized groups so that no one is left behind
3. Accede to the UN Convention on the Law of the Non-Navigational Uses of International Watercourses and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes as a means of promoting transboundary water cooperation
4. Scale up partnerships and collaboration through ongoing initiatives under the National Development Plan
5. Implement the updated Nationally Determined Contributions with special focus on ensuring resilient water supply systems for domestic and productive uses, promoting sustainable water harvesting and storage, increasing sanitation and wastewater treatment infrastructure and services, scaling up integrated water resources management approaches and water use efficiency, and protection of ecosystems.
6. Scale up Uganda's response to conflict and climate change-induced migration and displacement through improved water services and water security.

- 2) These commitments will be operationalized through established working groups along the 5 thematic areas.

b) High-Level Political Forum in July 2023

The High-level political forum was held in July 2023 to review the progress of the implementation of SDGs and to prepare for the SDG Summit in September that would be attended at the Heads of States level. As the progress on SDG6 had been extensively discussed during the UN Water Conference in March 2023, the main focus of the key High-Level Political Forum related to water was a discussion of the interlinkages between SDG 6 on Clean water and sanitation with other SDGs. Uganda was invited to provide some responses on the achievement of SDG6 and linkages with the other Sustainable Development Goals (SDGs). The contents of Uganda's response were as follows:

- a) SDG6 remains off track despite the fact that water and sanitation are critical in employment and wealth creation, enhancement of competitiveness, and in fostering socio-economic transformation.
- b) The progress in achievement of SDG6 and other SDGs in Uganda has been affected by limitations in the means of implementation and several challenges that include flooding, rising water levels, COVID-19 Pandemic, Ebola, refugee influx and rising commodity costs.
- c) Sustainable financing of water and sanitation services remains one of the biggest challenges, which Uganda, and other developing countries continue to face in implementation of the 2030 Agenda for Sustainable Development. Uganda requires USD1.7 billion annually to implement water and related programs but only USD 0.4 Billion has been mobilized constituting only 25% of the required funds. There is therefore a need to continue exploring innovative funding sources and options since the traditional sources are inadequate.
- d) Despite the above challenges, several actions are being taken by the Government of Uganda with support of various partners and stakeholders at all levels to accelerate progress in achievement of SDG6 namely:
 - **Provision of water and sanitation services:** Provision of water and sanitation services for communities, schools, and health care facilities is being **scaled up through innovative strategies** such as solar pumped systems, bulk water transfer, one village one water sources strategy, water harvesting, etc;
 - **Monitoring and reporting on SDG6:** In an effort to strengthen SDG6 monitoring, reporting, and data dissemination systems, SDG 6 has been **integrated into the National Development Plan and institutionalized in relevant institutions** through the creation of indicator-specific task teams that report on them annually through the Annual Sector Performance Report;
 - **Capacity development:** Investment in the workforce to attract, train, and retain workers, especially women and youth, is being done through innovative ways such as **applied training courses, utilizing experienced retired professionals, mentorship programs for early and mid-career men and women, the student and graduate internship program, monthly webinar series, dialogues, and applied research** among others through the recently established Water Resources Institute. Uganda has also developed an **SDG6 training manual** to ensure that we have sufficient human resources to fully follow up on the implementation of SDG 6 and other water-related goals;
 - **Information System:** A Water and Environment Information System has been established to **inform and guide effective water resources planning, development, and management** and also as a way of contributing to the implementation of the Game Changer related to the Global Water Information System;
 - **Maximize synergies between SDG6 and other SDGs:** Catchment based Integrated Water Resources Management approach is being implemented to **promote a cross-sectoral and integrated approach** to sustainable development; ensure **a nexus** between water, energy, food, ecosystem; ensure **sustainable and risk-informed** water resources management; promoted **water conservation and improve water security** through nature-based solutions; and enhance infrastructure, ecosystem and community **resilience, and early warning systems.**
 - **Partnerships:** Partnerships with all the relevant stakeholders have been established at national, regional, and international levels through existing frameworks such as the National Development Plan and Catchment-based Integrated Water Resources Management approach. Cross-sectoral, international, and transboundary partnerships have been **key in leveraging available institutional**

and human resources and capacities, fostering the exchange of knowledge, experiences, and best practices, and mobilizing the required resources.

Lessons learnt

- **Acceleration of achievement of SDG6 requires holistic actions** that include building human and institutional capacity, strengthening transboundary and cross-sectoral coordination and collaboration through existing governance arrangements, investing in science-based water resources assessment and knowledge generation, integrating management information systems, and mobilizing innovative financing.
- **Strong and strategic partnerships** with all the relevant stakeholders at national, regional, and international levels are needed for scaling up the achievement of SDG6 and other SDGs.
- **Priority should be given to monitoring and reporting** on all SDG6 targets and indicators, especially SDG6.3, 6.4, and 6.6, through building institutional and human capacity and provision of financial resources, among others.

Recommendations

1. A holistic **integrated approach to planning and implementation**, following a basin or a catchment, should be adopted to strengthen inter-linkages between SDG6 and the various other water-related SDGs in order to speed up the achievement of the 2030 Agenda.
2. There is a need to build **human and institutional capacity to mobilize resources that are more domestic and develop and run bankable projects** from infrastructure development to water resources management projects that sustain water for life and economic development.
3. There is a need to **harness the potential of creating more jobs and businesses**, including through business incubation and innovation in the water sector.
4. There is a need to explore **innovative ways of building human capacity** through, for example use of experienced professionals who are retirees, mentorship programs for early and mid-career professionals, student and graduate internship programs, and applied training courses, among others.

c) Sustainable Development Goals Summit in September 2023

The 2023 SDG Summit took place on 18 and 19 September 2023 in New York. It marked the beginning of a new phase of accelerated progress toward the Sustainable Development Goals with high-level political guidance on transformative and accelerated actions leading up to 2030. Convened by the President of the General Assembly, the Summit marked the half-way point to the deadline set for achieving the 2030 Agenda and the Sustainable Development Goals. It was the centerpiece of the High-level Week of the General Assembly. It responded to the impact of multiple and interlocking crises facing the world and is expected to reignite a sense of hope, optimism, and enthusiasm for the 2030 Agenda.

Over 100 Countries presented national commitments to SDG Transformation that include priority transitions and areas for investment, setting national benchmarks for reducing poverty and inequalities by 2027 and strengthening institutional frameworks to support SDG progress.

The 2023 SDG Summit provided an opportunity to Uganda to reiterate and reconfirm the commitments made during the United Nations 2023 Water Conference in March 2023 and further discussed during the High-Level Political Forum in July 2023.

10.8 Conclusion

Sustainable Development Goals are a set of 17 goals for the World's future through 2030 that are backed up by a set of 169 detailed targets, all of which were negotiated over a two-year period at the United Nations. These Goals apply to every nation and every sector. Cities, businesses, schools, organizations, etc, are all challenged to act. This is called Universality. Second, it is recognized that the Goals are all interconnected in a system. We cannot aim to achieve just one Goal; we must achieve them all. This is called Integration. And finally, it is widely recognized that achieving these Goals involves making very big, fundamental changes in how we live on Earth. This is called Transformation.

ANNEXES

CONTENTS

CONTENTS	206
Annex 1: Program Description	207
ANNEX 2: District Water Supply and Sanitation Achievements FY 2022/23	212
Annex 3: Access to safe water supply in rural and urban areas as of June 2023	217
Annex 4: Functionality of Rural and Urban Water Facilities as of June 2023	221
Annex 5 Community Management and Gender as of June 2023	225
Annex 6 A: Villages with safe water sources as of June 2023	229
Annex 6 B: Update on Validation of Villages with safe water sources	233
Annex 7: Functionality of Water Sources by Technology as of June 2023	236
Annex 8: Rural Piped Water Schemes And Provision WASH Support To Institutions	242
Annex 9A: District Sanitation and Hand washing coverage as of June 2023	274
Annex 9B: Benchmarking District Sanitation Performance	278
Annex 10.1 NWSC Operational Areas as of June 2023	279
Annex 10.2: NWSC Water Production (m3) and Capacity Utilization (%) as of 30th June 2023	285
Annex 10.3 NWSC Status of Mains Extensions (Km) as of June 2023	287
Annex 10.4 NWSC Status of Household Connections as of June 2023	289
Annex 10.5 NWSC Status of Pro-Poor Connections as of June 2023	291
Annex 10.6 NWSC Status of Sewer Connections as of June 2023	293
Annex 10.7 NWSC Status of Public Toilets Constructed and Cesspool Emptiers as of June 2023 ...	295
Annex 10.8 NWSC Percentage of Water Supply Systems Operated Using Solar Energy Packages as at June 2023	297
Source: NWSC Database	298
Annex 10.9 NWSC Number of Staff as of June 2023	299
Annex 11 Annual Performance of Umbrella Authority of Water and Sanitation	301

Annex 1: Program Description

The Water, Environment and Natural Resources and Climate Change Management Programme is concerned with sound management and sustainable utilization of water, environment and natural resources management, and mitigation of impact of climate change for socio-economic development of Uganda. The Programme, therefore, is central to realization of the NDP III goal of increased household incomes and improved quality of life of the population, set under the theme “**Sustainable Industrialization for Inclusive-growth, Employment and Wealth Creation**”.

The Third National Development Plan (NDPIII) whose goal is to increase household income and improve the quality of life of Ugandans has adopted a programme approach to planning, budgeting, implementation and reporting. This entails programme and performance-based budgeting to address the persistent implementation challenges resulting from uncoordinated planning, weak harmonization, limited sequencing of programmes and poor linkages between outcomes and outputs experienced in the past NDPs.

Overall, eighteen (18) National Programmes have been identified and approved with well-articulated results, objectives and interventions towards achieving the NDP III goal. These are:

S/N	Programme	Chair
1.	Agro-Industrialization	MAAIF
2.	Mineral Development	MEMD
3.	Private Sector Development	MoFPED
4.	Digital Transformation	MoICT&NG
5.	Human Capital Development	MoES
6.	Sustainable Development of Petroleum	MEMD
7.	Manufacturing	MoTIC
8.	Tourism Development	MoTWA
9.	Natural Resources, Environment, Climate Change, Land and Water Management	MoWE
10.	Sustainable Energy Development	MEMD
11.	Integrated Transport and Services	MoWT
12.	Sustainable Urbanisation and Housing	MoLHUD
13.	Technology Transfer and Development	MoSTI
14.	Regional Balanced Development	MoLG
15.	Community Mobilization & Mindset Change	MoGLSD
16.	Public Service Transformation	MoPS
17.	Governance and Security	OP
18.	Development Plan Implementation	MoFPED

The programme approach is meant to enable formulation of national priority development objectives and to realize these objectives through corresponding national programmes formulated and implemented in a coherent, coordinated and participatory manner to ensure sustainability. The programme approach to planning aims to:

- i) Focus implementation of the NDPIII programmes on delivery of common results.
- ii) Strengthen alignment of planning and budgeting frameworks to provide a logical framework for anchoring the Program-Based Budgeting System (PBS).
- iii) Enhance synergies across Ministries, Agencies and Local Governments (MALGs) and other actors to reduce a ‘silo’ approach to implementation; and,
- iv) Provide a coordinated framework for implementation, monitoring and reporting for improving delivery of results.

Implementation of the Programme Approach is designed to address the criticism that Government MALGs work in ‘silos’ as it provides a framework for inter and intra-Ministerial coordination.

Leadership Structure

Office of the Prime Minister

Overall, the OPM is the leader of Government Business and the overall coordinator for implementation of Government Policies across Ministries, Departments and other Public Institutions, is critical in coordinating the implementation of the 18 NDPIII Programmes.

The roles and responsibilities of OPM are outline below:

The Rt. Honorable Prime Minister will be the overall political programme implementation coordinator. He will be responsible for the following:

- i) Steer policy and strategic engagements with all Ministers in charge of implementing particular programmes interventions for the NDPIII results.
- ii) Hold Ministers accountable to deliver results; and,
- iii) Report to the President on progress of Programme Implementation.

Programme Political Leader(s) - Cabinet Minister of the Lead Ministry

The Minister of Water and Environment is the lead minister for the programme and provides policy guidance and jointly with the Minister for Lands to hold the technical leadership accountable for implementation of the programme.

Programme Technical Leader(s)

The Permanent Secretary of the Ministry of Water and Environment is the designated technical leader and coordinator for the implementation of the programme bringing together all the several state and non-state actors in the programme and steers and chairs the Programme Working Group.

Programme Working Group (PWG)

PWG is the policy working organ, within the overall NDP programme approach, in which Government (*all MDAs under the Programme*) and other stakeholders come together to function, discuss and agree on:

- i) Inter and intra agency planning.
- ii) Priority interventions and Resource allocation.
- iii) Delivery of services; and,
- iv) Joint monitoring & evaluation of multi-agency activities.

Vote(S)

Under this programme, there are several institutions (Ministries, Departments, Agencies and Local Governments) which form the basis of the annual budget and appropriations made by Parliament, and the source of accountability, these are.

Vote	Abbreviation	Name
003	OPM	Office of the Prime Minister
012	MLHUD	Mistry of Lands Housing and Urban Development
019	MWE	Ministry of Water and Environment
122	KCCA	Kampala Capital City Authority
150	NEMA	National Environmental Management Authority
156	ULC	Uganda Land Commission

Vote	Abbreviation	Name
157	NFA	National Forestry Authority
302	UNMA	Uganda National Meteorological Authority
501-850	LGs	Local Governments

Sub-Programmes

These are a group of related interventions/ outputs contributing to Programme Outcomes at various MDA levels. Sub-Programmes, just like Programmes, should be results based. They are derived from the core functions of the agencies and in line with the NDPIII Programmes.

Directorates/Departments

These are administrative units within the institutions that implement activities of the programme.

Projects

These represent a set of activities that primarily involve capital purchases and can be financed by the Government of Uganda and/or Development Partners to facilitate the MDAs to achieve specific. Under the Programme Planning Approach, projects will report to the relevant Departments. It should be noted that some projects cut across programmes as they contribute to more than one Programme. However, the responsibility of these projects will be the respective departments, hence the entire project should be budgeted for under the department. Where a project is multi-sectoral with various components being implemented by respective MDA's, these components should be reflected under the respective responsible departments as projects.

Programme Working Group Secretariat

The Secretariat of the Programme is housed at the Policy and Planning Department of the Ministry of Water and Environment as the leading Ministry in the Programme. The Commissioner Policy and Planning Department is the Secretary to the PWG and responsible for the day to day running of the Programme Secretariat.

Scope of Work of the PWG

The Programme Working Group is the functional organ through which the technical programme leaders undertake coordination of the implementation of Programme interventions at (i) Planning; (ii) Budgeting; and (iii) Reporting, levels.

i. Program Planning

The lead Ministry is responsible for implementation of the Programme. Through the Program Working Group (PWG) coordinated by secretariat under the Planning Department, all stakeholders are convened to set the priorities for implementation, identify the key policy and project requirements, identify key implementation bottlenecks to be resolved, among others. The priorities for the subsequent financial year are set in line with the Budget Process Calendar. The priorities identified must be in line aligned to the NDPIII. The timelines for implementation of the alignment of the Budget to the NDPIII Programme Approach.

The agreed outputs and priorities are then translated into annual programme action plans for each implementing entity. The action plans are submitted annually to the Ministry of Finance, Planning and Economic Development and Office of the Prime Minister for approval.

ii. Budgeting

As a lead vote, the ministry is responsible for coordination and development an annual Programme Budget Framework Paper (PBFP). This is done in consultation with all relevant stakeholders of the

programme and entails consolidation of the BFPs of each vote that contribute to that Particular Programme. The process is guided and overseen by the PWG to ensure that the final budget estimates are intended to finance the agreed priorities and actions of the program approved by the Programme Working Group (PWG).

iii. Performance Monitoring and Reporting

The lead Ministry consolidates, based on submissions from votes and agencies, the quarterly and annual programme reports on the progress of the results of the programme and submits to the OPM, both semi-annual and annual stage as well as Ministry of Finance.

iv. Specific Tasks of the PWG

- a) Ensures broad stakeholder consultation in discussing key issues and harmonize Government and stakeholder positions.
- b) Formulates Programme Implementation Plans in line with the National Development Plan and the Manifesto of the ruling government.
- c) Joint clearance of projects for inclusion in the Public Investment Plan, a requirement by the Development Committee.
- d) Ensures Implementation of Program Based Budgeting (PBB) for proper alignment to the NDP III.
- e) Coordinating inter-ministerial and agency budget allocations in a consultative way ensuring transparency and accountability.
- f) Ensuring that consultations are carried out between line ministries, and external and internal stakeholders on matters related to the programme.
- g) Examines and review of programme related policies and plans, reviewing past performance, emerging policy issues and future spending pressures.
- h) Identifying key outputs and programme performance targets both annually and in the medium term.
- i) Undertaking monitoring and assessment of programme interventions; and,
- j) Preparing semi-annual and annual programme reviews and reports.

Outputs

Overall, the PWG is responsible for preparation of the following outputs:

- i) Programme Implementation Action Plan (periodic),
- ii) Annual Programme Budget Framework Papers (PBFPs),
- iii) Quarterly, Semi-Annual and Annual Programme performance reports (APRs)
- iv) The medium-term budget strategy documents.
- v) Project approvals for submission to the Development Committee in MFPED

Mode of Operations

The PWG conducts its business through meetings, consultancies, sub-programme groups (SPGs), committees and special task forces.

The following sub-programme groups were established under the PWG to enhance effective monitoring and steering of programme:

- i) Water, Sanitation Management and Development sub-programme
- ii) Climate Change, Environment and Natural Resources sub-programme
- iii) Lands sub-programme

Each of the above sub-programme groups (SPGs) constitutes relevant committees and prepare meetings at least quarterly but where need arises more frequent meetings are arranged.

Membership to the PWG

1. Permanent Secretary Ministry of Water and Environment – **Chairperson**
2. Permanent Secretary Ministry of Lands Housing and Urban development – **Alternate Chairperson**
3. Co-Chairs (lead DPs representing WSS, ENR and Lands)
4. Director DWD
5. Director DWRM
6. Director DEA
7. Secretary Uganda Land Commission
8. ED-NEMA
9. ED-NFA
10. ED UNMA
11. MD-NWSC
12. Member MFPED
13. Member OPM
14. Member NPA
15. Member OP
16. Member EoC
17. Members representing CSOs
18. Respective Commissioners
19. Commissioner Policy and Planning – MWE (**Secretary**)

ANNEX 2: District Water Supply and Sanitation Achievements FY 2022/23

District	Spring Protection		Boreholes		Design Piped water		Const. piped water		Rainwater Tanks		Valley Tanks		Reh. Water Facilities		Public Latrines		Ext. Piped water	
	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A
1	0	0	15	14	1	1	1	1	0	0	0	0	13	31	1	1	0	0
2	0	0	11	11	1	1	0	0	0	0	0	0	7	7	0	0	0	0
3	0	0	11	11	2	2	0	0	0	0	0	0	12	12	1	1	0	0
4	0	0	5	5	1	0	1	0	0	0	0	0	6	6	1	1	0	0
5	0	0	5	3	0	0	1	1	0	0	0	0	10	10	1	1	0	0
6	0	0	7	7	1	1	3	3	0	0	0	0	10	10	1	1	0	0
7	0	0	13	13	0	0	1	0	0	0	0	0	5	5	2	2	1	1
8	0	0	8	8	0	0	0	0	0	0	0	0	7	7	1	1	0	0
9	0	0	10	10	1	1	0	0	0	0	0	0	1	1	0	0	0	0
10	0	0	8	8	0	0	1	1	0	0	0	0	8	8	1	1	0	0
11	0	0	6	6	1	1	0	0	0	0	0	0	16	16	0	1	0	0
12	0	0	15	15	0	0	1	1	0	0	0	0	10	7	1	1	0	0
13	0	0	13	14	1	1	1	1	0	0	0	0	10	10	1	1	0	0
14	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
15	0	0	3	5	0	0	1	1	5	5	0	0	10	10	0	0	0	0
16	0	0	9	9	1	1	1	1	0	0	0	0	8	8	1	1	0	0
17	0	0	4	7	1	1	0	0	0	0	0	0	0	20	0	1	0	0
18	0	0	7	7	1	1	1	0	0	0	0	0	0	0	0	0	0	0
19	7	7	10	10	1	1	1	2	0	0	0	0	9	12	1	1	0	0
20	0	0	17	17	0	0	1	2	0	0	0	0	23	23	0	0	0	0
21	0	0	6	6	0	0	1	1	0	0	0	0	4	6	1	1	0	0
22	0	0	10	10	1	1	0	0	0	0	0	0	10	12	0	0	0	0
23	0	0	6	6	1	1	1	1	0	0	0	0	6	8	1	1	0	0
24	0	0	10	10	0	0	1	1	0	0	0	0	10	10	1	1	0	0
25	0	0	9	9	1	1	1	1	0	0	0	0	5	5	1	1	0	0

	District	Spring Protection		Boreholes		Design Piped water		Const. piped water		Rainwater Tanks		Valley Tanks		Reh. Water Facilities		Public Latrines		Ext. Piped water	
26	Pakwach	0	0	5	5	1	1	1	1	0	0	0	0	7	7	1	1	0	0
27	Yumbe	0	0	21	21	0	0	1	1	0	0	0	0	20	20	0	0	0	0
28	Zombo	0	0	8	8	1	1	1	1	0	0	0	0	10	10	1	1	0	0
29	Terego	0	0	9	9	2	2	2	2	0	0	0	0	3	3	1	1	0	0
30	Amudat	0	0	6	6	0	0	1	1	0	0	0	0	0	0	0	0	0	0
31	Amuria	0	0	6	6	1	1	1	1	0	0	0	0	4	4	0	0	0	0
32	Bukedea	5	5	5	5	1	1	1	1	0	0	0	0	7	7	0	0	0	0
33	Kaabong	0	0	13	13	0	0	0	0	0	0	0	0	1	1	0	0	0	0
34	Kaberaimaido	0	0	11	11	1	1	1	1	0	0	0	0	7	7	1	2	0	0
35	Kalaki	0	0	6	6	0	0	1	1	0	0	0	0	4	4	0	0	0	0
36	Kapelebyong																		
37	Karenga	0	0	0	0	1	1	1	1	0	0	0	0	20	20	0	0	0	0
38	Katakwi	0	0	7	7	0	0	1	1	0	0	0	0	7	7	0	0	0	0
39	Kotido	0	0	2	2	0	0	1	1	0	0	0	0	8	8	0	0	0	0
40	Kumi	7	7	5	10	2	1	0	0	0	0	0	0	12	12	1	1	0	0
41	Moroto	0	0	9	9	3	3	0	0	0	0	0	0	24	24	0	0	0	0
42	Nakapiripirti	2	2	7	7	0	0	1	1	2	2	0	0	15	15	0	0	0	0
43	Napak																		
44	Ngora	0	0	2	2	0	0	1	1	0	0	0	0	2	2	1	1	2	1
45	Serere	0	0	6	6	1	1	1	1	0	0	0	0	2	2	1	1	0	0
46	Soroti	0	0	7	7	0	0	1	1	0	0	0	0	1	1	0	0	0	0
47	Abim																		
48	Nabilatuk	0	0	10	10	1	1	0	0	0	0	0	0	20	20	2	2	0	0
49	Budaka	5	5	7	7	1	1	1	1	0	0	0	0	13	13	1	1	0	0
50	Bududa																		
51	Bugiri	0	0	10	10	0	0	1	1	0	0	0	0	40	40	0	0	0	0
52	Bugweri																		
53	Bukwo	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0

	District	Spring Protection		Boreholes		Design Piped water		Const. piped water		Rainwater Tanks		Valley Tanks		Reh. Water Facilities		Public Latrines		Ext. Piped water	
54	Bulambuli	0	0	6	6	1	1	0	0	0	0	0	0	18	18	0	0	2	2
55	Busia	0	0	14	14	2	2	0	0	0	0	0	0	28	28	2	1	0	0
56	Butaleja	0	0	11	12	1	1	1	1	0	0	0	0	12	13	0	0	0	0
57	Butebo	2	2	6	6	1	1	1	1	0	0	0	0	12	12	0	0	0	0
58	Buyende	0	0	18	20	0	0	1	1	0	0	0	0	4	4	1	1	0	0
59	Iganga	0	0	11	11	0	0	1	1	0	0	0	0	7	7	1	1	0	0
60	Jinja	0	0	6	5	1	1	1	1	0	0	0	0	1	1	1	1	0	0
61	Kaliro	0	0	9	9	0	0	1	1	0	0	0	0	28	28	1	1	0	0
62	Kamuli	0	0	22	22	4	4	0	0	0	0	0	0	16	0	0	0	0	0
63	Kapchorwa	3	3	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
64	Kibuku	0	0	12	12	1	1	1	1	0	0	0	0	20	20	1	1	0	0
65	Kween	4	4	2	2	14	14	2	2	0	0	0	0	4	1	0	0	0	0
66	Luuka	0	0	11	11	1	1	1	1	0	0	0	0	2	4	1	1	0	0
67	Manafwa	0	0	8	8	0	0	1	1	0	0	0	0	11	14	0	0	0	0
68	Mayuge	0	0	12	12	1	1	1	1	0	0	0	0	10	10	1	1	0	0
69	Mbale	0	0	3	3	0	0	1	1	0	0	0	0	14	14	1	1	0	0
70	Namayingo	0	0	4	4	1	1	1	1	2	0	0	0	25	30	2	2	0	0
71	Namisindwa	13	13	2	2	0	0	2	2	0	0	0	0	8	8	1	1	0	0
72	Namutumba	0	0	17	17	1	1	1	1	0	0	0	0	25	25	1	1	0	0
73	Pallisa	0	0	15	16	1	1	1	1	0	0	0	0	20	47	0	0	0	0
74	Sironko	3	3	0	0	1	1	2	2	0	0	0	0	8	12	1	1	0	0
75	Tororo	0	0	17	19	1	1	1	1	0	0	0	0	10	25	3	3	0	0
76	Buikwe	0	0	2	2	0	0	1	1	0	0	0	0	20	23	1	1	0	0
77	Buvuma																		
78	Bukomasimbi	0	0	0	0	0	0	1	1	0	0	1	1	14	14	0	0	0	0
79	Butambala	0	0	2	2	1	1	1	1	0	0	0	0	1	1	0	0	0	0
80	Gomba	0	0	1	1	0	0	1	1	0	0	0	0	12	12	0	0	0	0
81	Kalangala	0	0	0	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0

	District	Spring Protection		Boreholes		Design Piped water		Const. piped water		Rainwater Tanks		Valley Tanks		Reh. Water Facilities		Public Latrines		Ext. Piped water	
82	Kalungu	0	0	3	3	1	1	0	0	0	0	0	0	1	1	0	0	0	0
83	Kayunga	0	0	6	6	1	1	2	2	0	0	0	0	8	8	1	1	0	0
84	Kiboga																		
85	Kiryandogo																		
86	Kyankwanzi	0	0	9	9	0	0	2	2	0	0	0	0	0	0	1	1	0	0
87	Luwero	0	0	8	8	4	4	4	4	0	0	0	0	3	3	1	1	0	0
88	Lwengo	1	1	2	2	0	0	1	1	4	4	1	1	1	1	1	1	0	0
89	Masaka	0	0	2	2	1	1	1	1	0	0	0	0	13	15	1	1	0	0
90	Mityana	0	0	3	3	1	1	2	2	0	0	0	0	0	0	1	1	0	0
91	Mpigi	0	0	5	5	2	2	0	0	0	0	0	0	1	1	0	0	1	1
92	Mukono	0	0	17	19	1	1	1	1	0	0	0	0	27	27	0	0	0	0
93	Nakaseke	0	0	8	9	1	1	1	1	0	0	0	0	10	10	0	0	0	0
94	Nakasongola	0	0	4	4	0	0	3	3	0	0	0	0	6	6	1	1	0	0
95	Rakai																		
96	Kyotera	0	0	0	0	0	0	2	2	7	7	0	0	18	18	1	1	0	0
97	Sembabule	0	0	0	0	1	1	3	3	3	3	0	0	20	20	2	2	0	0
98	Wakiso	0	0	10	10	0	0	1	0	0	0	0	0	8	4	0	0	0	0
99	Buliisa	0	0	3	3	1	1	0	0	0	0	0	0	6	14	1	1	0	0
100	Bundibugyo	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0
101	Bunyangabu	0	0	0	0	1	1	1	1	0	0	0	0	1	1	0	0	0	0
102	Hoima																		
103	Kabarole	0	0	0	0	1	1	1	1	0	0	0	0	15	15	1	1	0	0
104	Kagadi	0	0	12	12	1	1	1	1	0	0	0	0	15	15	0	0	0	0
105	Kakumiro	0	0	15	15	2	2	1	1	0	0	0	0	11	11	1	1	0	0
106	Kamwenge	0	0	12	12	2	2	1	1	0	0	0	0	20	20	1	1	0	0
107	Kasese																		
108	Kassanda	0	0	12	10	2	2	1	1	0	0	0	0	10	10	1	1	0	0
109	Kibaale	0	0	6	6	0	0	1	1	0	0	0	0	9	10	0	0	1	1

District	Spring Protection		Boreholes		Design Piped water		Const. piped water		Rainwater Tanks		Valley Tanks		Reh. Water Facilities		Public Latrines		Ext. Piped water	
110	Kikuube	7	7	11	11	1	1	1	1	0	0	0	11	11	1	1	1	1
111	Kitagwenda	0	0	4	4	0	0	1	1	0	0	0	7	7	1	1	0	0
112	Kyegegwa	0	0	6	6	1	1	1	1	0	0	0	16	16	0	0	4	4
113	Kyenjojo	0	0	8	5	1	1	1	1	0	0	0	13	13	1	1	0	0
114	Masindi	1	1	6	7	2	2	1	1	0	0	0	5	5	2	2	0	0
115	Mubende	0	0	8	8	2	2	3	3	0	0	0	0	0	2	2	0	0
116	Ntoroke																	
117	Buhweju	13	13	0	0	2	2	1	1	7	7	0	0	0	0	0	0	0
118	Bushenyi	0	0	0	0	1	1	1	1	0	0	0	1	1	0	0	0	0
119	Ibanda	0	0	0	0	2	3	1	2	0	0	0	2	10	1	1	0	0
120	Isingiro	0	0	2	2	2	2	3	3	0	0	0	15	15	1	1	1	1
121	Kabale	1	0	0	0	1	1	2	2	0	0	0	0	0	1	1	0	0
122	Kanungu	10	10	0	0	1	1	0	0	0	0	0	3	3	1	1	2	2
123	Kazo	0	0	5	5	1	1	1	1	0	0	0	15	15	1	0	0	0
124	Kiruhura	0	0	1	0	0	0	1	1	2	4	0	1	2	1	1	0	0
125	Kisoro	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0
126	Lyantonde	0	0	0	0	0	0	1	1	6	6	2	6	6	0	0	0	0
127	Mbarara	0	0	7	7	0	0	1	1	0	0	0	10	13	0	0	0	0
128	Mitooma	0	0	0	0	0	0	1	1	0	0	0	10	10	0	0	0	0
129	Ntungamo	12	12	2	1	0	1	0	0	12	2	0	18	1	2	2	0	0
130	Rubanda	7	7	0	0	0	0	1	1	1	1	0	3	3	1	1	0	0
131	Rukiga	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	0	0
132	Rubirizi	0	0	1	1	0	0	1	1	0	0	0	5	4	0	0	4	2
133	Rukungiri	1	1	0	0	0	0	2	2	0	0	0	3	3	1	1	0	0
134	Rwampara	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	1	1
135	Sheema	3	3	0	0	0	0	2	2	0	0	0	0	0	0	0	1	1
	TOTAL	108	107	789	799	108	107	127	125	50	42	4	1106	1192	82	82	21	18

Annex 3: Access to safe water supply in rural and urban areas as of June 2023

	District	Access		Total
		Rural	Urban	
1	Abim	70%	80%	71%
2	Adjumani	95%	95%	95%
3	Agago	95%	95%	95%
4	Alebtong	93%	95%	93%
5	Amolatar	87%	76%	85%
6	Amudat	43%	65%	45%
7	Amuria	68%	58%	67%
8	Amuru	87%	65%	86%
9	Apac	72%	66%	71%
10	Arua	77%	79%	77%
11	Budaka	79%	68%	78%
12	Bududa	65%	44%	64%
13	Bugiri	67%	95%	68%
14	Bugweri	62%	95%	65%
15	Buhweju	61%	95%	62%
16	Buikwe	80%	32%	64%
17	Bukedea	67%	57%	66%
18	Bukomansimbi	85%	95%	86%
19	Bukwo	76%	59%	75%
20	Bulambuli	72%	35%	69%
21	Buliisa	64%	83%	65%
22	Bundibugyo	70%	73%	70%
23	Bunyangabu	76%	72%	75%
24	Bushenyi	94%	57%	85%
25	Busia	77%	65%	75%
26	Butaleja	60%	59%	60%
27	Butambala	95%	95%	95%
28	Butebo	70%	0%	70%
29	Buvuma	29%	82%	35%
30	Buyende	38%	54%	39%
31	Dokolo	92%	40%	81%
32	Gomba	86%	95%	87%
33	Gulu	94%	56%	73%
34	Hoima	68%	22%	52%
35	Ibanda	57%	49%	53%
36	Iganga	69%	77%	71%
37	Isingiro	48%	46%	48%
38	Jinja	76%	49%	66%
39	Kaabong	86%	95%	87%
40	Kabale	90%	77%	86%
41	Kabarole	76%	81%	77%

	District	Access		
		Rural	Urban	Total
42	Kaberamaido	82%	25%	80%
43	Kagadi	55%	81%	58%
44	Kakumiro	31%	30%	31%
45	Kalaki	76%	0%	76%
46	Kalangala	60%	95%	63%
47	Kaliro	48%	38%	48%
48	Kalungu	93%	95%	93%
49	Kampala	0%	78%	78%
50	Kamuli	85%	58%	79%
51	Kamwenge	73%	95%	74%
52	Kanungu	90%	87%	89%
53	Kapchorwa	79%	79%	79%
54	Kapelebyong	93%	0%	93%
55	Karenga	95%	0%	95%
56	Kasanda	44%	0%	44%
57	Kasese	58%	62%	59%
58	Katakwi	89%	95%	89%
59	Kayunga	70%	31%	60%
60	Kazo	35%	27%	34%
61	Kibaale	64%	95%	66%
62	Kiboga	84%	46%	75%
63	Kibuku	70%	43%	69%
64	Kikuube	54%	44%	53%
65	Kiruhura	59%	55%	58%
66	Kiryandongo	85%	48%	77%
67	Kisoro	41%	56%	42%
68	Kitagwenda	84%	0%	84%
69	Kitgum	95%	95%	95%
70	Koboko	77%	80%	78%
71	Kole	72%	95%	73%
72	Kotido	74%	95%	76%
73	Kumi	78%	42%	73%
74	Kwania	76%	74%	76%
75	Kween	81%	95%	82%
76	Kyankwanzi	58%	42%	55%
77	Kyegegwa	29%	48%	30%
78	Kyenjojo	73%	47%	66%
79	Kyotera	60%	53%	58%
80	Lamwo	95%	95%	95%
81	Lira	94%	78%	90%
82	Luuka	79%	41%	77%
83	Luwero	68%	60%	66%
84	Lwengo	76%	45%	72%
85	Lyantonde	40%	68%	44%

	District	Access		Total
		Rural	Urban	
86	Madi Okollo	72%	0%	72%
87	Manafwa	74%	92%	77%
88	Maracha	86%	95%	86%
89	Masaka	75%	50%	66%
90	Masindi	94%	22%	70%
91	Mayuge	55%	47%	55%
92	Mbale	61%	81%	66%
93	Mbarara	74%	31%	50%
94	Mitooma	91%	95%	92%
95	Mityana	78%	73%	76%
96	Moroto	87%	75%	85%
97	Moyo	95%	95%	95%
98	Mpigi	83%	55%	78%
99	Mubende	35%	0%	32%
100	Mukono	67%	72%	68%
101	Nabilatuk	49%	0%	49%
102	Nakapiripirit	53%	95%	55%
103	Nakaseke	81%	80%	81%
104	Nakasongola	76%	72%	75%
105	Namayingo	63%	64%	63%
106	Namisindwa	68%	49%	67%
107	Namutumba	59%	31%	57%
108	Napak	83%	58%	82%
109	Nebbi	73%	95%	74%
110	Ngora	86%	82%	86%
111	Ntoroko	86%	82%	85%
112	Ntungamo	80%	60%	77%
113	Nwoya	57%	27%	54%
114	Obongi	95%	0%	95%
115	Omoro	89%	95%	89%
116	Otuke	88%	95%	88%
117	Oyam	65%	41%	64%
118	Pader	95%	95%	95%
119	Pakwach	67%	17%	57%
120	Pallisa	68%	52%	65%
121	Rakai	34%	34%	34%
122	Rubanda	72%	89%	74%
123	Rubirizi	67%	32%	62%
124	Rukiga	95%	95%	95%
125	Rukungiri	92%	33%	85%
126	Rwampara	87%	0%	87%
127	Serere	74%	84%	75%
128	Sheema	82%	78%	81%
129	Sironko	80%	55%	76%

	District	Access		Total
		Rural	Urban	
130	Soroti	87%	21%	76%
131	Ssembabule	37%	38%	37%
132	Terego	66%	0%	66%
133	Tororo	60%	65%	61%
134	Wakiso	38%	25%	32%
135	Yumbe	48%	52%	49%
136	Zombo	86%	77%	84%
	National Level	67%	57%	65%

Source: MWE MIS Database. Urban coverage excludes NWSC coverage

Annex 4: Functionality of Rural and Urban Water Facilities as of June 2023

	District	Functionality		
		Rural	Urban	WfP
1	Abim	61%	70%	75%
2	Adjumani	88%	84%	100%
3	Agago	54%	57%	0%
4	Alebtong	70%	78%	17%
5	Amolatar	80%	75%	18%
6	Amudat	94%	95%	100%
7	Amuria	93%	100%	71%
8	Amuru	68%	69%	0%
9	Apac	67%	75%	40%
10	Arua	87%	0%	0%
11	Budaka	93%	83%	50%
12	Bududa	99%	89%	100%
13	Bugiri	97%	100%	0%
14	Bugweri	88%	100%	0%
15	Buhweju	99%	99%	100%
16	Buikwe	93%	94%	100%
17	Bukedea	87%	61%	100%
18	Bukomansimbi	77%	95%	100%
19	Bukwo	75%	42%	0%
20	Bulambuli	97%	72%	0%
21	Buliisa	73%	98%	0%
22	Bundibugyo	87%	87%	0%
23	Bunyangabu	92%	89%	0%
24	Bushenyi	81%	82%	80%
25	Busia	95%	76%	100%
26	Butaleja	92%	91%	0%
27	Butambala	63%	55%	0%
28	Butebo	95%	0%	0%
29	Buvuma	88%	97%	0%
30	Buyende	96%	95%	54%
31	Dokolo	76%	66%	0%
32	Gomba	57%	76%	35%
33	Gulu	91%	100%	100%
34	Hoima	85%	85%	0%
35	Ibanda	96%	86%	0%
36	Iganga	96%	0%	0%
37	Isingiro	97%	92%	78%
38	Jinja	88%	84%	0%
39	Kaabong	82%	59%	100%
40	Kabale	86%	93%	0%
41	Kabarole	82%	83%	0%

	District	Functionality		
		Rural	Urban	WfP
42	Kaberamaido	87%	100%	0%
43	Kagadi	72%	78%	0%
44	Kakumiro	70%	82%	0%
45	Kalaki	89%	0%	100%
46	Kalangala	99%	100%	0%
47	Kaliro	95%	100%	0%
48	Kalungu	82%	86%	100%
49	Kampala	0%	0%	0%
50	Kamuli	90%	88%	100%
51	Kamwenge	98%	96%	100%
52	Kanungu	84%	83%	0%
53	Kapchorwa	83%	87%	0%
54	Kapelebyong	97%	0%	33%
55	Karenga	76%	0%	67%
56	Kasanda	82%	0%	100%
57	Kasese	83%	90%	100%
58	Katakwi	97%	97%	100%
59	Kayunga	88%	88%	70%
60	Kazo	90%	89%	92%
61	Kibaale	99%	54%	0%
62	Kiboga	68%	69%	86%
63	Kibuku	92%	96%	100%
64	Kikuube	93%	100%	0%
65	Kiruhura	91%	93%	90%
66	Kiryandongo	88%	89%	95%
67	Kisoro	96%	100%	100%
68	Kitagwenda	75%	0%	0%
69	Kitgum	50%	71%	50%
70	Koboko	71%	89%	0%
71	Kole	82%	82%	67%
72	Kotido	74%	84%	63%
73	Kumi	84%	91%	75%
74	Kwania	76%	74%	15%
75	Kween	93%	88%	0%
76	Kyankwanzi	87%	98%	98%
77	Kyegegwa	80%	82%	50%
78	Kyenjojo	80%	82%	0%
79	Kyotera	68%	68%	100%
80	Lamwo	73%	67%	60%
81	Lira	87%	0%	20%
82	Luuka	96%	94%	50%
83	Luwero	86%	96%	88%
84	Lwengo	80%	86%	78%
85	Lyantonde	94%	100%	64%

	District	Functionality		
		Rural	Urban	WfP
86	Madi Okollo	72%	0%	0%
87	Manafwa	76%	80%	0%
88	Maracha	72%	71%	0%
89	Masaka	85%	100%	100%
90	Masindi	86%	93%	61%
91	Mayuge	76%	98%	0%
92	Mbale	89%	98%	0%
93	Mbarara	96%	95%	88%
94	Mitooma	81%	86%	75%
95	Mityana	59%	74%	50%
96	Moroto	74%	75%	64%
97	Moyo	88%	71%	0%
98	Mpigi	79%	81%	0%
99	Mubende	100%	0%	100%
100	Mukono	93%	93%	100%
101	Nabilatuk	66%	0%	100%
102	Nakapiripirit	90%	89%	90%
103	Nakaseke	76%	88%	96%
104	Nakasongola	97%	99%	99%
105	Namayingo	87%	65%	100%
106	Namisindwa	81%	93%	0%
107	Namutumba	90%	93%	0%
108	Napak	61%	100%	67%
109	Nebbi	73%	91%	78%
110	Ngora	88%	79%	100%
111	Ntoroko	68%	80%	0%
112	Ntungamo	75%	64%	80%
113	Nwoya	74%	29%	0%
114	Obongi	72%	0%	0%
115	Omoro	44%	31%	0%
116	Otuke	66%	77%	50%
117	Oyam	82%	78%	0%
118	Pader	77%	92%	50%
119	Pakwach	91%	77%	89%
120	Pallisa	95%	95%	100%
121	Rakai	83%	0%	77%
122	Rubanda	87%	71%	38%
123	Rubirizi	95%	98%	0%
124	Rukiga	56%	77%	0%
125	Rukungiri	87%	92%	100%
126	Rwampara	86%	0%	67%
127	Serere	93%	78%	100%
128	Sheema	87%	84%	0%
129	Sironko	85%	86%	25%

District		Functionality		
		Rural	Urban	WfP
130	Soroti	86%	0%	60%
131	Ssembabule	82%	94%	95%
132	Terego	79%	0%	0%
133	Tororo	98%	100%	100%
134	Wakiso	75%	71%	100%
135	Yumbe	84%	88%	0%
136	Zombo	79%	78%	100%
	National Level	84%	84%	80%

Source MWE MIS/Database

Annex 5 Community Management and Gender as of June 2023

	District	Management (WSCs)	Gender (WSCs with women in key positions)
1	Abim	98%	99%
2	Adjumani	95%	97%
3	Agago	98%	87%
4	Alebtong	90%	83%
5	Amolatar	92%	100%
6	Amudat	99%	93%
7	Amuria	70%	85%
8	Amuru	86%	96%
9	Apac	100%	98%
10	Arua	97%	73%
11	Budaka	82%	69%
12	Bududa	100%	93%
13	Bugiri	99%	92%
14	Bugweri	97%	96%
15	Buhweju	100%	92%
16	Buikwe	96%	86%
17	Bukedea	100%	98%
18	Bukomansimbi	84%	68%
19	Bukwo	73%	87%
20	Bulambuli	97%	100%
21	Buliisa	90%	92%
22	Bundibugyo	93%	83%
23	Bunyangabu	51%	72%
24	Bushenyi	80%	79%
25	Busia	79%	86%
26	Butaleja	95%	89%
27	Butambala	91%	94%
28	Butebo	75%	85%
29	Buvuma	93%	97%
30	Buyende	98%	95%
31	Dokolo	81%	94%
32	Gomba	95%	72%
33	Gulu	92%	96%
34	Hoima	98%	95%
35	Ibanda	92%	94%
36	Iganga	90%	96%
37	Isingiro	97%	55%
38	Jinja	89%	92%
39	Kaabong	93%	96%
40	Kabale	97%	89%
41	Kabarole	70%	70%
42	Kaberamaido	100%	84%
43	Kagadi	58%	63%

	District	Management (WSCs)	Gender (WSCs with women in key positions)
44	Kakumiro	100%	70%
45	Kalaki	99%	100%
46	Kalangala	100%	31%
47	Kaliro	100%	100%
48	Kalungu	91%	97%
49	Kampala	0%	0%
50	Kamuli	90%	89%
51	Kamwenge	99%	100%
52	Kanungu	98%	95%
53	Kapchorwa	95%	90%
54	Kapelebyong	80%	86%
55	Karenga	90%	99%
56	Kasanda	97%	96%
57	Kasese	95%	96%
58	Katakwi	100%	99%
59	Kayunga	90%	82%
60	Kazo	95%	26%
61	Kibaale	99%	100%
62	Kiboga	87%	93%
63	Kibuku	94%	94%
64	Kikuube	99%	98%
65	Kiruhura	100%	93%
66	Kiryandongo	98%	72%
67	Kisoro	97%	98%
68	Kitagwenda	68%	53%
69	Kitgum	92%	95%
70	Koboko	81%	68%
71	Kole	95%	97%
72	Kotido	97%	99%
73	Kumi	98%	94%
74	Kwania	92%	76%
75	Kween	86%	91%
76	Kyankwanzi	88%	85%
77	Kyegegwa	95%	100%
78	Kyenjojo	76%	78%
79	Kyotera	78%	66%
80	Lamwo	98%	98%
81	Lira	95%	90%
82	Luuka	79%	80%
83	Luwero	69%	75%
84	Lwengo	83%	80%
85	Lyantonde	91%	37%
86	Madi Okollo	99%	97%
87	Manafwa	55%	77%

	District	Management (WSCs)	Gender (WSCs with women in key positions)
88	Maracha	86%	95%
89	Masaka	83%	65%
90	Masindi	83%	83%
91	Mayuge	94%	83%
92	Mbale	98%	82%
93	Mbarara	99%	100%
94	Mitooma	93%	85%
95	Mityana	79%	82%
96	Moroto	78%	93%
97	Moyo	94%	90%
98	Mpigi	98%	98%
99	Mubende	91%	29%
100	Mukono	100%	83%
101	Nabilatuk	89%	93%
102	Nakapiripirit	97%	92%
103	Nakaseke	97%	84%
104	Nakasongola	98%	96%
105	Namayingo	96%	91%
106	Namisindwa	99%	92%
107	Namutumba	96%	92%
108	Napak	57%	87%
109	Nebbi	99%	87%
110	Ngora	99%	100%
111	Ntoroko	65%	82%
112	Ntungamo	81%	90%
113	Nwoya	88%	89%
114	Obongi	96%	100%
115	Omoro	90%	96%
116	Otuke	84%	73%
117	Oyam	97%	100%
118	Pader	95%	99%
119	Pakwach	92%	99%
120	Pallisa	72%	88%
121	Rakai	82%	77%
122	Rubanda	86%	72%
123	Rubirizi	97%	40%
124	Rukiga	97%	100%
125	Rukungiri	90%	90%
126	Rwampara	86%	99%
127	Serere	62%	97%
128	Sheema	95%	96%
129	Sironko	99%	95%
130	Soroti	90%	88%
131	Ssembabule	100%	99%

	District	Management (WSCs)	Gender (WSCs with women in key positions)
132	Terego	97%	100%
133	Tororo	79%	87%
134	Wakiso	97%	75%
135	Yumbe	99%	98%
136	Zombo	72%	93%
	National Level	90%	88%

Source: MWE MIS Database

Annex 6 A: Villages with safe water sources as of June 2023

TSU	District	Village without a source		Village with a source	
		Total	%	Total	%
9	Abim	159	51%	152	49%
1	Adjumani	15	7%	193	93%
2	Agago	322	34%	613	66%
2	Alebtong	127	21%	491	79%
2	Amolatar	119	27%	316	73%
9	Amudat	68	40%	101	60%
3	Amuria	234	58%	170	42%
2	Amuru	0	0%	67	100%
2	Apac	46	14%	293	86%
1	Arua	159	22%	568	78%
4	Budaka	31	12%	237	88%
4	Bududa	502	53%	454	47%
10	Bugiri	47	12%	349	88%
10	Bugweri	7	5%	127	95%
8	Buhweju	43	19%	184	81%
10	Buikwe	134	27%	356	73%
3	Bukedea	10	6%	146	94%
7	Bukomansimbi	28	11%	227	89%
4	Bukwo	233	44%	292	56%
4	Bulambuli	733	61%	476	39%
5	Buliisa	41	31%	90	69%
6	Bundibugyo	314	44%	403	56%
6	Bunyangabu	49	19%	205	81%
8	Bushenyi	208	36%	362	64%
4	Busia	66	12%	477	88%
4	Butaleja	104	25%	319	75%
7	Butambala	28	18%	131	82%
4	Butebo	44	18%	194	82%
10	Buvuma	112	58%	80	42%
10	Buyende	43	12%	308	88%
2	Dokolo	120	25%	361	75%
7	Gomba	50	18%	221	82%
2	Gulu	57	40%	84	60%
6	Hoima	215	64%	123	36%
8	Ibanda	426	64%	240	36%
10	Iganga	43	19%	188	81%
8	Isingiro	210	27%	555	73%
10	Jinja	150	36%	268	64%
9	Kaabong	154	47%	172	53%
8	Kabale	197	29%	487	71%
6	Kabarole	171	35%	323	65%
3	Kaberamaido	42	18%	190	82%

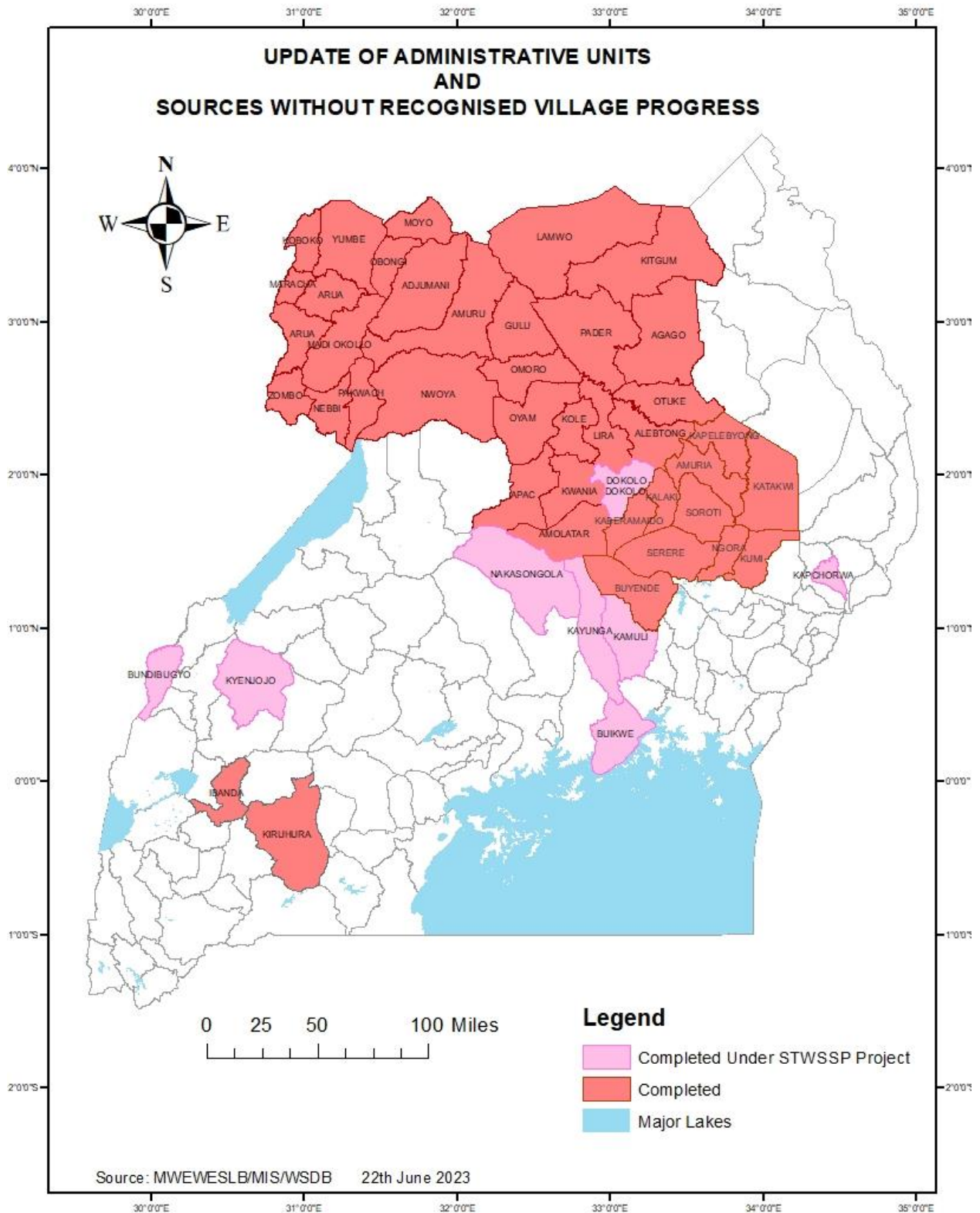
TSU	District	Village without a source		Village with a source	
		Total	%	Total	%
6	Kagadi	225	31%	490	69%
6	Kakumiro	263	65%	143	35%
3	Kalaki	41	19%	179	81%
7	Kalangala	24	23%	79	77%
10	Kaliro	35	11%	272	89%
7	Kalungu	30	11%	251	89%
11	Kampala	870	100%	0	0%
10	Kamuli	134	17%	651	83%
6	Kamwenge	74	20%	294	80%
8	Kanungu	78	15%	440	85%
4	Kapchorwa	351	52%	323	48%
3	Kapelebyong	136	57%	101	43%
9	Karenga	57	30%	135	70%
6	Kasanda	315	55%	254	45%
6	Kasese	251	33%	507	67%
3	Katakwi	48	14%	295	86%
10	Kayunga	65	16%	346	84%
8	Kazo	96	31%	218	69%
6	Kibaale	100	39%	159	61%
5	Kiboga	64	27%	176	73%
4	Kibuku	38	16%	207	84%
6	Kikuube	84	33%	172	67%
8	Kiruhura	75	24%	243	76%
5	Kiryandongo	19	8%	218	92%
8	Kisoro	83	21%	317	79%
6	Kitagwenda	33	13%	221	87%
2	Kitgum	93	17%	445	83%
1	Koboko	67	17%	327	83%
2	Kole	191	34%	378	66%
9	Kotido	28	14%	173	86%
3	Kumi	52	31%	118	69%
2	Kwania	71	18%	328	82%
4	Kween	224	46%	266	54%
5	Kyankwanzi	105	30%	244	70%
6	Kyegegwa	202	44%	261	56%
6	Kyenjojo	344	36%	608	64%
7	Kyotera	46	21%	168	79%
2	Lamwo	63	16%	321	84%
2	Lira	205	26%	570	74%
10	Luuka	65	24%	205	76%
5	Luwero	163	27%	433	73%
7	Lwengo	139	30%	319	70%
7	Lyantonde	61	28%	159	72%
1	Madi Okollo	81	29%	202	71%

TSU	District	Village without a source		Village with a source	
		Total	%	Total	%
4	Manafwa	297	48%	319	52%
1	Maracha	68	16%	346	84%
7	Masaka	96	27%	260	73%
5	Masindi	82	26%	235	74%
10	Mayuge	91	18%	402	82%
4	Mbale	456	48%	504	53%
8	Mbarara	212	40%	322	60%
8	Mitooma	104	19%	449	81%
5	Mityana	222	35%	418	65%
9	Moroto	41	27%	113	73%
1	Moyo	13	8%	147	92%
7	Mpigi	91	25%	279	75%
6	Mubende	420	70%	177	30%
5	Mukono	164	26%	467	74%
9	Nabilatuk	9	16%	46	84%
9	Nakapiripirit	38	31%	85	69%
5	Nakaseke	94	25%	278	75%
5	Nakasongola	67	19%	284	81%
10	Namayingo	57	21%	218	79%
4	Namisindwa	412	50%	417	50%
10	Namutumba	88	24%	273	76%
9	Napak	58	23%	193	77%
1	Nebbi	143	27%	387	73%
3	Ngora	6	4%	132	96%
6	Ntoroko	99	47%	110	53%
8	Ntungamo	236	24%	745	76%
2	Nwoya	11	15%	62	85%
1	Obongi	7	10%	62	90%
2	Omoro	3	2%	147	98%
2	Otuke	181	39%	281	61%
2	Oyam	379	39%	599	61%
2	Pader	123	19%	511	81%
1	Pakwach	139	39%	217	61%
4	Pallisa	55	16%	295	84%
7	Rakai	145	27%	400	73%
8	Rubanda	165	36%	295	64%
8	Rubirizi	71	24%	226	76%
8	Rukiga	49	17%	244	83%
8	Rukungiri	177	21%	655	79%
8	Rwampara	17	7%	225	93%
3	Serere	17	7%	231	93%
8	Sheema	346	60%	228	40%
4	Sironko	731	55%	598	45%
3	Soroti	112	28%	295	72%

TSU	District	Village without a source		Village with a source	
		Total	%	Total	%
7	Ssembabule	123	29%	308	71%
1	Terego	82	23%	281	77%
4	Tororo	207	25%	629	75%
5	Wakiso	150	21%	575	79%
1	Yumbe	120	18%	553	82%
1	Zombo	58	10%	541	90%
Total		18,782	32%	39,873	68%

Source: MWE MIS Database. Excludes villages served by NWSC and Rainwater harvesting tanks

Annex 6 B: Update on Validation of Villages with safe water sources



Summary of Districts updated during the exercise

District	Before Update Exercise			After Update Exercise		
	Sub-county	Parishes	Villages	Sub-county	Parishes	Villages
Agago	16	78	935	11	114	1137
Alebtong	9	45	618	26	69	716
Amolatar	11	58	435	16	84	571
Amuria	11	64	404	18	95	518
Amuru	5	32	67	13	58	193
Apac	8	31	339	12	54	376
Arua	13	87	727	4	32	247
Buikwe	13	67	490	13	67	468
Bukedea	6	71	156	16	146	326
Bundibugyo	27	127	717	27	127	828
Dokolo	14	68	481	14	68	474
Gulu	10	41	141	11	45	156
Ibanda	16	64	666	16	61	596
Kaberamaido	6	20	232	9	29	224
Kalaki	6	20	220	10	33	213
Kamuli	22	93	785	22	87	765
Kapchorwa	15	86	674	15	83	631
Kapelebyong	5	32	237	11	53	317
Katakwi	10	55	343	20	117	625
Kayunga	13	68	411	13	71	398
Kiruhura	14	57	318	14	56	293
Kitgum	10	56	538	22	83	676
Koboko	7	49	394	10	59	424
Kole	7	42	569	11	49	580
Kumi	8	83	170	18	148	315
Kwania	6	34	399	11	49	437
Kyenjojo	31	155	952	31	165	882
Lamwo	11	55	384	19	84	520
Lira	13	93	775	10	67	671
Madi-Okollo	9	40	283	12	46	277
Maracha	8	42	414	19	89	681
Moyo	6	27	160	10	43	215
Nakasongola	15	68	351	15	67	349
Nebbi	10	58	530	16	69	629
Ngora	5	64	138	11	72	137
Nwoya	5	24	73	11	44	114

District	Before Update Exercise			After Update Exercise		
	Sub-county	Parishes	Villages	Sub-county	Parishes	Villages
Obongi	3	17	69	6	28	140
Omoro	7	29	150	15	64	441
Otuke	8	39	462	14	54	509
Oyam	12	63	978	14	68	1083
Pader	12	52	634	23	94	867
Pakwach	5	25	356	10	48	575
Serere	12	51	248	15	70	274
Soroti	10	50	407	11	54	348
Terego	6	39	363	7	39	367
Yumbe	13	102	673	26	196	1214
Zombo	13	46	599	15	61	742
Adjumani	10	54	208	11	55	201
Total	512	2,721	20,673	704	3,514	23,740

Annex 7: Functionality of Water Sources by Technology as of June 2023

District	Point Water Sources																				
	Springs Protected			Shallow wells			Deep boreholes			Rainwater tanks			Dams			Valley tanks			PSP/ Kiosk, Tap stands		
	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot
Abim	5	7	12	26	6	32	255	148	403	9	18	27	3	1	4	0	0	0	3	5	8
Adjumani	32	9	41	67	13	80	728	67	795	19	28	47	3	0	3	0	0	0	67	12	79
Agago	10	10	20	45	121	166	684	328	1,012	3	109	112	0	13	13	0	1	1	15	59	74
Alebtong	336	43	379	87	181	268	372	79	451	15	27	42	1	5	6	0	0	0	14	25	39
Amolatar	3	2	5	4	7	11	479	79	558	2	33	35	2	9	11	0	0	0	0	6	6
Amudat	2	0	2	8	1	9	203	13	216	0	0	0	0	0	0	1	0	1	9	0	9
Amuria	10	11	21	56	22	78	445	3	448	0	2	2	5	2	7	0	0	0	0	0	0
Amuru	99	34	133	50	37	87	391	154	545	19	5	24	0	0	0	0	0	0	1	28	29
Apac	8	3	11	32	36	68	407	70	477	15	102	117	1	0	1	3	6	9	6	3	9
Arua	815	137	952	82	12	94	458	32	490	53	23	76	0	0	0	0	0	0	36	8	44
Budaka	159	7	166	13	5	18	540	27	567	2	18	20	1	1	2	0	0	0	6	3	9
Bududa	592	5	597	4	0	4	19	1	20	51	2	53	0	0	0	1	0	1	425	7	432
Bugiri	207	8	215	165	3	168	804	17	821	135	6	141	0	0	0	0	0	0	45	0	45
Bugweri	42	1	43	67	40	107	281	1	282	4	13	17	0	0	0	0	0	0	111	0	111
Buhweju	315	2	317	30	0	30	1	0	1	52	1	53	1	0	1	0	0	0	192	3	195
Buikwe	843	25	868	182	27	209	258	49	307	85	0	85	1	0	1	0	0	0	205	24	229
Bukedea	232	18	250	128	32	160	247	31	278	7	11	18	3	0	3	0	0	3	10	13	
Bukomansimbi	103	60	163	189	113	302	89	20	109	283	5	288	1	0	1	17	0	17	142	1	143
Bukwo	83	39	122	22	3	25	2	1	3	16	7	23	0	0	0	0	0	0	406	149	555
Bulambuli	327	0	327	78	2	80	146	9	155	18	1	19	0	0	0	0	0	0	311	35	346
Buliisa	27	10	37	70	39	109	122	46	168	9	7	16	0	0	0	0	0	0	114	12	126
Bundibugyo	281	38	319	2	0	2	23	13	36	47	18	65	0	0	0	0	0	0	967	124	1,091
Bunyangabu	211	15	226	160	16	176	28	7	35	51	12	63	0	0	0	0	0	0	326	26	352

District	Point Water Sources																																									
	Springs Protected						Shallow wells						Deep boreholes						Rainwater tanks						Dams						Valley tanks						PSP/ Kiosk, Tap stands					
	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot						
Bushenyi	665	178	843	138	24	162	34	5	39	59	11	70	1	0	1	3	1	4	230	40	270																					
Busia	233	15	248	95	9	104	624	31	655	45	4	49	2	0	2	0	0	0	50	10	60																					
Butaleja	3	1	4	32	9	41	565	46	611	15	0	15	0	0	0	0	0	0	0	1	1																					
Butambala	240	21	261	59	183	242	50	42	92	43	8	51	0	1	1	0	0	0	35	11	46																					
Butebo	185	0	185	20	2	22	293	17	310	2	10	12	0	0	0	0	0	0	0	0	0																					
Buvuma	26	1	27	48	6	54	56	10	66	17	3	20	0	0	0	0	0	0	25	0	25																					
Buyende	0	0	0	9	0	9	563	19	582	20	8	28	2	0	2	5	6	11	10	0	10																					
Dokolo	114	83	197	129	94	223	363	20	383	39	16	55	0	0	0	0	0	0	27	17	44																					
Gomba	106	20	126	228	190	418	155	89	244	60	44	104	7	6	13	1	9	10	15	37	52																					
Gulu	90	5	95	74	15	89	436	42	478	41	0	41	1	0	1	0	0	0	10	0	10																					
Hoima	367	3	370	200	96	296	248	20	268	38	33	71	0	1	1	0	0	0	37	0	37																					
Ibanda	161	16	177	143	12	155	52	6	58	52	2	54	0	0	0	0	0	0	466	36	502																					
Iganga	119	4	123	199	3	202	506	8	514	20	24	44	0	0	0	0	0	0	84	0	84																					
Isingiro	70	3	73	170	68	238	119	93	212	3,647	10	3,657	9	7	16	23	2	25	884	10	894																					
Jinja	337	11	348	317	68	385	384	61	445	41	13	54	0	0	0	0	0	0	8	2	10																					
Kaabong	1	0	1	11	11	22	314	76	390	1	0	1	1	0	1	1	0	1	2	0	2																					
Kabale	582	32	614	2	2	4	12	6	18	193	24	217	0	1	1	0	0	0	908	202	1,110																					
Kabarole	237	69	306	404	93	497	27	8	35	91	15	106	0	0	0	0	0	0	171	22	193																					
Kaberamaido	11	3	14	54	20	74	293	13	306	1	18	19	0	1	1	0	0	0	0	0	0																					
Kagadi	306	174	480	400	93	493	183	74	257	123	27	150	0	0	0	0	0	0	16	4	20																					
Kakumiro	90	48	138	161	45	206	176	59	235	28	42	70	0	0	0	0	0	0	0	0	0																					
Kalaki	22	4	26	18	5	23	303	31	334	11	3	14	1	0	1	0	0	0	7	1	8																					
Kalangala	26	0	26	73	1	74	3	0	3	125	2	127	0	0	0	0	0	0	107	0	107																					
Kaliro	2	0	2	33	4	37	529	25	554	21	0	21	0	0	0	0	0	0	2	0	2																					
Kalungu	88	50	138	378	75	453	96	34	130	134	6	140	0	0	0	1	0	1	144	5	149																					

District	Point Water Sources																											
	Springs Protected				Shallow wells				Deep boreholes				Rainwater tanks				Dams				Valley tanks				PSP/ Kiosk, Tap stands			
	F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot	
Kampala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Kamuli	21	2	23	524	79	603	1,075	75	1,150	38	24	62	0	0	0	1	0	1	0	0	1	0	1	71	18	89		
Kamwenge	289	2	291	352	25	377	162	11	173	115	4	119	4	0	4	29	0	29	0	29	0	29	874	3	877			
Kanungu	1,006	91	1,097	29	25	54	24	39	63	93	30	123	0	0	0	0	0	10	10	10	10	10	526	130	656			
Kapchorwa	323	31	354	1	0	1	1	1	2	10	3	13	0	0	0	0	0	0	0	0	0	0	292	91	383			
Kapelebyong	0	0	0	10	9	19	364	2	366	1	0	1	0	0	2	2	1	0	1	0	1	0	4	0	4			
Karenga	2	0	2	26	10	36	256	82	338	1	0	1	0	0	0	2	1	0	2	1	0	3	7	2	9			
Kasanda	39	3	42	155	63	218	228	19	247	64	4	68	6	0	6	22	0	22	0	22	0	22	93	34	127			
Kaseke	662	112	774	58	8	66	81	25	106	77	25	102	0	0	0	1	0	1	0	1	0	1	2,000	324	2,324			
Katakwi	2	0	2	70	1	71	572	18	590	21	1	22	10	0	10	2	0	2	0	2	0	2	49	1	50			
Kayunga	74	7	81	245	55	300	571	68	639	39	5	44	1	1	2	6	2	8	2	8	2	106	11	117				
Kazo	4	0	4	106	21	127	96	38	134	599	29	628	16	1	17	30	3	33	3	33	0	0	0	0	0			
Kibaale	181	11	192	240	12	252	94	4	98	84	4	88	0	0	0	0	0	0	0	0	0	85	0	85				
Kiboga	58	37	95	76	88	164	124	38	162	97	25	122	7	0	7	5	2	7	5	2	7	103	22	125				
Kibuku	37	5	42	25	13	38	496	20	516	8	7	15	0	0	0	2	0	2	0	2	0	7	4	11				
Kikuube	322	0	322	260	6	266	182	50	232	54	3	57	0	0	0	0	0	0	0	0	0	15	0	15				
Kiruhura	1	0	1	55	12	67	198	33	231	789	58	847	55	4	59	50	8	58	8	58	289	16	305					
Kiryandongo	14	7	21	249	48	297	503	45	548	4	5	9	1	0	1	20	1	21	1	21	19	2	21					
Kisoro	459	43	502	0	0	0	0	2	2	497	3	500	0	0	0	3	0	3	0	3	339	2	341					
Kitagwenda	170	74	244	202	105	307	17	4	21	49	14	63	0	0	0	0	0	0	0	0	0	318	49	367				
Kitgum	2	2	4	6	19	25	683	391	1,074	32	245	277	4	4	8	0	0	0	0	0	5	5	10					
Koboko	117	131	248	89	14	103	308	36	344	7	6	13	0	0	0	0	0	0	0	0	18	17	35					
Kole	176	43	219	209	25	234	344	39	383	17	54	71	6	2	8	0	1	1	1	1	12	8	20					
Kotido	0	0	0	1	1	2	400	123	523	26	12	38	16	17	33	17	2	19	2	19	58	23	81					
Kumi	234	2	236	105	74	179	390	38	428	23	21	44	2	1	3	1	0	1	0	1	14	1	15					

District	Point Water Sources																																									
	Springs Protected						Shallow wells						Deep boreholes						Rainwater tanks						Dams						Valley tanks						PSP/ Kiosk, Tap stands					
	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot									
Kwania	23	3	26	95	31	126	386	79	465	21	58	79	0	1	1	3	16	19	11	1	1	1	3	16	19	11	1	1	1	12												
Kween	272	13	285	3	0	3	65	10	75	12	1	13	0	0	0	0	0	0	0	162	14	0	0	0	0	0	162	14	176													
Kyankwanzi	22	1	23	139	33	172	307	20	327	86	26	112	2	0	2	47	1	48	64	0	0	0	47	1	48	64	0	64														
Kyegegwa	74	3	77	171	47	218	110	44	154	34	37	71	0	1	1	3	2	5	130	0	0	0	3	2	5	130	0	130														
Kyenjojo	481	89	570	694	182	876	278	93	371	106	26	132	0	0	0	0	0	0	160	36	0	0	0	0	0	160	36	196														
Kyotera	54	13	67	100	70	170	73	47	120	111	36	147	0	0	0	3	0	3	14	1	0	0	3	0	3	14	1	15														
Lamwo	25	0	25	5	9	14	685	246	931	5	20	25	9	5	14	0	1	1	5	2	0	0	1	1	1	5	2	7														
Lira	538	67	605	433	69	502	434	50	484	40	30	70	1	4	5	0	0	0	22	10	0	0	0	0	0	22	10	32														
Luuka	125	4	129	193	11	204	449	17	466	12	1	13	2	0	2	0	2	2	7	0	0	0	2	2	2	7	0	7														
Luwero	16	0	16	398	69	467	585	64	649	95	34	129	1	0	1	35	5	40	53	3	0	0	35	5	40	53	3	56														
Lwengo	60	50	110	312	152	464	172	68	240	631	22	653	7	5	12	11	0	11	39	7	0	0	11	0	11	39	7	46														
Lyantonde	0	0	0	21	5	26	80	27	107	468	6	474	6	7	13	17	6	23	30	0	0	0	17	6	23	30	0	30														
Madi Okollo	7	3	10	19	4	23	274	94	368	23	26	49	0	0	0	0	5	5	8	2	0	0	0	5	5	8	2	10														
Manafwa	322	6	328	3	2	5	168	98	266	7	27	34	0	0	0	0	1	1	30	26	0	0	1	1	1	30	26	56														
Maracha	261	158	419	66	11	77	241	44	285	24	41	65	0	0	0	0	0	0	67	9	0	0	0	0	0	67	9	76														
Masaka	114	20	134	329	84	413	69	6	75	117	5	122	1	0	1	2	0	2	3	0	0	0	2	0	2	3	0	3														
Masindi	445	21	466	481	96	577	315	62	377	63	20	83	1	2	3	24	14	38	18	2	0	0	24	14	38	18	2	20														
Mayuge	142	137	279	230	125	355	588	32	620	7	4	11	0	0	0	0	0	0	51	9	0	0	0	0	0	51	9	60														
Mbale	554	67	621	44	2	46	341	18	359	44	4	48	0	0	0	0	0	0	450	69	0	0	0	0	0	450	69	519														
Mbarara	141	24	165	71	10	81	168	35	203	1,926	18	1,944	17	3	20	5	0	5	276	24	0	0	5	0	5	276	24	300														
Mitooma	736	192	928	81	45	126	8	12	20	75	10	85	1	0	1	2	1	3	279	12	0	0	2	1	3	279	12	291														
Mityana	77	42	119	150	325	475	320	103	423	375	91	466	1	1	2	3	3	6	159	41	0	0	3	3	6	159	41	200														
Moroto	1	2	3	3	0	3	323	105	428	3	6	9	4	3	7	3	1	4	0	0	0	0	3	1	4	0	0	0														
Moyo	22	12	34	22	5	27	321	33	354	48	12	60	0	0	0	0	0	0	141	23	0	0	0	0	0	141	23	164														
Mpigi	270	10	280	395	162	557	78	41	119	91	8	99	0	0	0	0	0	0	26	1	0	0	0	0	0	26	1	27														

District	Point Water Sources																				
	Springs Protected			Shallow wells			Deep boreholes			Rainwater tanks			Dams			Valley tanks			PSP/ Kiosk, Tap stands		
	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot	F	NF	Tot
Mubende	43	0	43	262	2	264	237	0	237	60	0	60	3	0	3	45	0	45	10	0	10
Mukono	604	60	664	295	25	320	441	30	471	167	11	178	3	0	3	0	0	0	152	6	158
Nabilatuk	0	0	0	2	10	12	99	42	141	7	4	11	1	0	1	4	0	4	20	10	30
Nakapiripirit	9	1	10	22	0	22	168	24	192	9	2	11	1	0	1	8	1	9	61	3	64
Nakaseke	9	1	10	239	97	336	345	76	421	155	36	191	0	0	0	22	1	23	66	1	67
Nakasongola	2	0	2	59	3	62	568	13	581	181	1	182	5	0	5	174	2	176	490	8	498
Namayingo	38	10	48	112	51	163	341	35	376	103	12	115	0	0	0	4	0	4	23	0	23
Namisindwa	450	96	546	5	7	12	85	19	104	20	19	39	0	0	0	0	0	0	151	22	173
Namutumba	57	6	63	87	22	109	471	29	500	9	12	21	0	0	0	0	0	0	2	0	2
Napak	4	2	6	1	0	1	327	203	530	30	13	43	1	0	1	3	2	5	8	8	16
Nebbi	148	55	203	33	27	60	498	141	639	26	33	59	3	2	5	4	0	4	45	0	45
Ngora	24	0	24	141	16	157	275	29	304	6	18	24	4	0	4	1	0	1	16	7	23
Ntoroko	69	20	89	68	59	127	64	21	85	16	14	30	0	0	0	0	0	0	117	16	133
Ntungamo	750	159	909	313	171	484	143	140	283	122	22	144	1	0	1	3	1	4	395	120	515
Nwoya	76	5	81	10	35	45	333	96	429	5	14	19	0	0	0	0	0	0	1	18	19
Obongi	0	0	0	1	4	5	180	37	217	4	21	25	0	0	0	0	0	0	19	19	38
Omoro	6	102	108	3	86	89	306	192	498	2	40	42	0	0	0	0	0	0	1	6	7
Otuke	14	22	36	25	42	67	279	94	373	12	6	18	1	1	2	0	0	0	11	5	16
Oyam	183	40	223	271	74	345	501	60	561	3	37	40	0	0	0	0	1	1	11	2	13
Pader	20	5	25	28	22	50	927	207	1,134	16	39	55	0	1	1	1	0	1	35	7	42
Pakwach	0	1	1	15	24	39	162	30	192	49	5	54	5	0	5	3	1	4	357	2	359
Pallisa	120	5	125	50	16	66	524	11	535	6	4	10	1	0	1	0	0	0	29	1	30
Rakai	27	4	31	161	99	260	120	70	190	927	95	1,022	3	1	4	7	2	9	22	12	34
Rubanda	484	70	554	1	0	1	15	13	28	348	16	364	0	0	0	3	5	8	205	89	294
Rubirizi	168	18	186	64	5	69	6	0	6	218	4	222	0	0	0	0	0	0	248	9	257

District	Point Water Sources																														
	Springs Protected				Shallow wells				Deep boreholes				Rainwater tanks				Dams				Valley tanks				PSP/ Kiosk, Tap stands						
	F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot		F	NF	Tot				
Rukiga	191	45	236	1	2	3		15	44	59		34	21	55		0	0	0		0	0	0		0	0	0		315	259	574	
Rukungiri	1,196	128	1,324	62	21	83		37	28	65		291	40	331		1	0	1		0	0	0		0	0	0		440	64	504	
Rwampara	269	67	336	7	6	13		7	10	17		825	148	973		0	0	0		2	1	3		584	38	622					
Serere	30	5	35	248	36	284		649	51	700		25	6	31		2	0	2		0	0	0		2	0	2					
Sheema	306	81	387	134	26	160		27	16	43		136	5	141		0	0	0		0	0	0		536	62	598					
Sironko	489	23	512	2	17	19		82	20	102		14	19	33		1	0	1		0	3	3		450	109	559					
Soroti	71	31	102	134	34	168		627	65	692		57	21	78		5	4	9		1	0	1		34	1	35					
Ssembabule	1	0	1	79	96	175		108	77	185		663	5	668		11	4	15		63	0	63		29	2	31					
Terego	75	23	98	17	19	36		385	64	449		30	15	45		0	0	0		0	1	1		18	16	34					
Tororo	234	1	235	41	1	42		914	19	933		68	0	68		1	0	1		0	0	0		4	0	4					
Wakiso	764	234	998	894	602	1,496		327	68	395		517	59	576		2	0	2		0	0	0		745	137	882					
Yumbe	3	36	39	58	65	123		946	77	1,023		5	22	27		0	0	0		0	0	0		39	3	42					
Zombo	862	173	1,035	17	22	39		133	64	197		36	14	50		1	0	1		0	0	0		104	35	139					

Source: MWE MIS Database F=Functional NF = Not Functional Tot = Total

Annex 8: Rural Piped Water Schemes And Provision WASH Support To Institutions

TABLE 1: CONSTRUCTION AND EXTENSION OF PIPED WATER SUPPLY SYSTEM

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
REGIONAL CENTER 1	Adjumani	Rehabilitation of Kololo piped water system.	The scheme is not operational. It broke down sometime back and it requires replacement of the tanks. Rehabilitation of the piped water system is ongoing.	GoU
		Design of piped water system at Ofua seed secondary school.	Design of the piped water system was completed.	GoU
		Drilling of a production well in Mgbere at the District headquarters.	Siting, drilling, casting and installation of the production well was completed.	UgIFT
	Agago	Rehabilitation of Achol-Pii Piped Water Supply & System at Health Centre III in Arum Sub County.	Rehabilitation of piped water in Acholi Pii Health Centre III completed and connection of 4 tap stands on the water system.	UgIFT
		Drilling of 2No. production wells in Kezze, Lapono Sub County and Acholi-Nyek village	Production wells drilled in Kizze and Acholi Nyek Lapono Sub County to supply a seed school and Lapiriin Health Centre II.	UgIFT
		Design of piped water at Lapono seed SS in Lapono Sub County.	Design completed waiting for approval from the ministry.	UgIFT
	Alebtong	Design of 2No. production wells in AloI town council and Abaku Town Council.	Designs to be submitted to Ministry of Water and Environment. No piped water system was planned/constructed for this FY 2022/23.	UgIFT
	Amolator	Construction of a piped water system for Aputi Health Centre III.	Construction in progress in the next financial year 2023/24.	UgIFT
	Amuru	Construction of Pyela piped water supply system in Lamogi Sub County - Phase II.	Implemented as planned and Otwee pump replaced. Works completed include construction of 5 public stand points.	UgIFT
	Apac	Design and construction of Teboke and Agoga production wells	Designs were completed and Production wells fully constructed. Agoga	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			and Teboke were both successful but Amun did not meet the required standard and it was turned to handpump.	
	Arua	Extension of Arivu piped water to Enzeva P/S and Anyavo village.	Extension of Arivu piped water systems to Enjevu primary school and Onyavu village in Arivu Sub County. Works completed include construction of 2No. public stand points and 4No. tap stands.	UgIFT
		Drilling of 3No. production wells in Vurra, Logiri SC and Ajia Sub Counties.	3No. production wells were drilled in sub counties of Vurra (Ejupala market), Logiri (Kampala market) and Ajia (Oyoro trading centre) at Adraka Rural Growth Centre.	UgIFT
	Dokolo	Drilling of 3No. production wells in Adok and Adeknino Sub County.	Drilling of the production wells: 02No. in Adok Sub County and 01No. in Adeknino Sub County at a yield of 2.5cm and 2cm respectively fully were completed.	UgIFT
	Gulu	Drilling of 2No. production wells at Omel Health Centre III in Omel Sub County and Labworomor Rural Growth Centre in Palaro Sub County.	To be completed in the next financial year plus fabrication of a tank stand and installation of a reserve tank.	UgIFT
		Design of a Piped Water System at Labworomor Rural Growth Centre in Palaro Sub County.	Design completed.	UgIFT
	Kitgum	Construction of Okol piped water scheme in Mucwini East Sub County.	Partial construction of the piped water system.	UgIFT
	Koboko	Construction of Ludara piped water scheme in Ludara Sub County.	Only 12% of the works were done in the construction of the piped water scheme by Siima Construction Services Ltd which prompted the return of about UGX. 184 million to the consolidated fund. The Contract expired on 30 th May 2023 and was not	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			renewed due to very low progress.	
		Design of a piped water scheme for Lobule Health Centre III.	Consultancy for siting, drilling supervision and design of piped water system of health centre was done.	GoU
	Kole	Construction of piped water scheme at Corner Mowlem	Works completed.	UgIFT
	Kwania	Design and Construction of Alido piped water scheme.	Works completed include construction of Pump house, fence, No.5 public stand points, No.10 tap stands and installation of Reservoir Tank.	UgIFT
	Lamwo	Construction of Pawach mini piped water supply system in Potika Sub County.	Designs of the system completed and construction works in progress.	GoU
	Lira	Construction of Adyaka piped water scheme phase I.	Works done include construction of Reservoir tank and Guard house.	UgIFT
		Drilling of a production well in Agali Sub County for Agali seed secondary school.	Siting, drilling and casting completed.	GoU
	Madia-Okollo	Extension of Pawor and Alijoda piped water systems.	Extended piped water in Pawor Sub County for 1.2km in 3No. villages in Ndavu parish, Pawor Sub County with 3No.public stand posts and 7No. tap stands to serve the communities in the sub counties after community sensitizations were done.	UgIFT
	Maracha	Drilling of No.3 production wells for All Saints seed secondary school, Kololo seed school and Liko Health Centre III in sub counties of Agei, Tara and Drambu.	Production wells drilled to serve All Saints Seed secondary school, Kololo public seed secondary school and Liko Health Centre III were successfully drilled with 3.6m ³ and installation done, 2.4m ³ in the 2 nd attempt installation done and 24m ³ but installation to be done respectively.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	Moyo	Construction of a production well at Gbari Health Centre II.	The production well was drilled and installed.	UgIFT
		Design of production well at Gbari Health Centre II.	Designs of the system completed and construction works in progress.	UgIFT
	Nebbi	Extension of water from Awaradi to Kucwiny Town Council with 77-yard taps; Connections in five villages of Awaradi, Acak, Vungangu, Thorony and Akanyo Town Council.	Completion of the extension of water from Awaradi to Kucwiny Town Council with 77 No. yard taps. Connections in five (5No.) villages of Awaradi, Acak, Vungangu, Thorony and Akanyo Town Council.	UgIFT
	Nwoya	Construction of Gok solar powered motorized borehole water supply system at Anaka subcounty headquarters.	Gok solar powered borehole motorized water supply system phase I completed. Works completed include connection of No.6 public stand points and No.12 tap stands.	UgIFT
		Drilling of 2No. production wells at Lii junction and Owee Sub County.	Drilling is ongoing.	GoU
	Obongi	Construction of 3No. production wells; Okukua, Okuni West and Anbra prdn wells.	Production wells fully completed.	UgIFT
	Omoro	Design and construction of a piped water scheme in Lakwana seed school.	Works completed.	UgIFT
		Construction of 2No. production wells.	Works completed.	UgIFT
	Otuke	Design and Construction of Achal P piped water system.	construction completed and connection of 3 No. public stand points and 17 No. taps on the water system.	UgIFT
	Oyam	Design of piped water system- Bario Piped Water System.	Designs approved.	UgIFT
		Construction of Atipe piped water supply system.	Works completed.	UgIFT
	Pader	Extension of piped water supply system from Acholibur to Dure.	Design and construction completed.	UgIFT
	Pakwach	Extension of piped water from Nyarwodho Gravity Flow Scheme from Payungu to Ajika Lagang and Atara Villages.	Successfully completed and functional. Works connected include 9No. public stand points and 18No. tap stands.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
REGIONAL CENTER 2		Extension of piped water from Nyarwodho Gravity Flow Scheme from Kambitatu to St. Agata P/S via Kambitatu A and B, Teraling, Wijadwong, Kitulu A and B	Works completed.	UgIFT
	Yumbe	Construction of Kerwa water supply system in Kerwa Sub County.	Construction of dwarf walls and installation of the water storage reservoir Phase II completed.	UgIFT
	Zombo	Design of Arikta Piped Water Supply & System in Atoma Sub County.	Designed 1No. production well and submitted to the design review commttee of Ministry of Water and Environment for onward review and approval.	UgIFT
		Construction of 4No. production wells in sub counties of Zeu, Athuma and Alangi.	Drilled 4No. production wells.	UgIFT
	Terego	Construction of Ngalabia Rural Growth Centre mini piped water system at Leju Town Council.	Designing, Installation and motorizaton of mini piped water system completed.	UgIFT
		Construction of Obiyua Rural Growth Centre mini piped water system at Obiyua Town Council.		UgIFT
	Amudat	Construction of Achorichor piped water system.	Construction of Achorichor Piped Water System complete with 2No. public stand posts. The contractor for the construction of this waster supply system is M/S Real Irrigation Engineering Company Limited sum of UGX 182,206,774 under procurement reference number. Amudat806/Wrks/2022-2023/0003. This project was planned and budgeted under UgIFT funding and additional funding of about UGX 44,727,370 from the rural water sub grant. This project is to be implemented in quarter	GOU and Ugift

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			two and has been done as per the plan.	
		Design of Lokokor – Loro Piped Water System.	Design of Lokokor Piped Water System complete and approved by Ministry of Water and Environment.	UgIFT
	Amuria	Extension of piped water in Wera Seed School	Carried out test pumping in the existing water source (hand pump) at Wera seed secondary school. The results indicated a borehole yeild of 1.2m ³ /hr test pumping with a recovery period of 60%. The additional cntract was awarded to CAB contractors for the motorization of the system. currently costructed and the delivery of materials are ongoing 2No. Public taps.	UgIFT
		Feasibility Studies and Detailed Engineering design for WERA Town Council Piped Water System	Feasibility studies for Wera Piped Water System are complete and Design to be completed.	UgIFT
		Drilling of 1 Production well	One production well drilled in Apeiulai Rural Growth Centre, Ogolai Sub County. According to the test pumping results, the yield was 1.5m ³ /hr. the contractor, EBOWA investments limited have completed.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	Bukedea	Design and Construction of a Piped Water System in Kabarwa seed school	Motorization of Kabarwa seed school borehole complete and construction complete with 15No. tap stands.	UgIFT
	Kaabong	Drilling of 5No. production wells: Lochom, Kakamar, Usake, Kotome and Lotim	5No. production wells were drilled.	UgIFT
		Design of Piped water system.	Design of Piped Water System completed.	UgIFT
	Kaberamaido	Extension of Alwa Rural Growth Centre PW to Ebeju Rural Growth Centre- Kaberamaido.	Works completed and the community is already accessing water with 8No. tap stands.	UgIFT
		Design of Piped Water System for Kaburepoli Rural Growth Centre.	Design Kaburepoli Rural Growth Centre complete. Design submitted to Ministry of Water and Environment for approval.	UgIFT
		Drilling of 2No. production wells at Kaburepoli Rural Growth Centre and Ochero.	Production well drilling complete.	UgIFT
	Kalaki	Construction of Abalang Piped Water System- Kalaki.	Phase I works for construction of Abalang complete.	
	Kapelebyong	Drilling of 2No. production wells.	The drilling of 2No. production wells completed.	
	Karenga	Extension of Piped Water System to Nakitoit parish Piped Water System in Karenga Sub County	Extension of Piped Water System to Nakitoit parish complete.	UgIFT
		Design of Piped water system for Lokori Rural Growth Centre.	feasibility report is ready the drilling of the production well also was completed.	UgIFT
		Drilling of 1 production well.	Drilling and rehabilitation works complete.	UgIFT
	Katakwi	Design and construction of Katakwi Piped water systems Katakwi Primary School.	Borehole motorized successfully in Bisina.	

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	Kotido	Construction of Nayan Piped Water System Phase 1- Kotido	Construction of mini piped water supply scheme at Nayan village-Rom-rom parish kotido district is phased (general items miscellaneous, 1/3 of distribution network, borehole and pump station, transmission main, reservoir and connection, mechanical and electrical less generator). The procurement submission was made to Procurement Disposal Unit-the contract for W&S consults international was renewed to take on the works. The works are ongoing.	UgIFT
		Drilling of 2No. Production wells at Nakapedlimoru army secondary school and Kanair Sub County.	Production well drilling complete.	UgIFT
	Kumi	Design of Piped Water System at Oluwa- Kumi.	The design of Oluwa Piped Water System is in final stages was submitted for approval in July for approval by Ministry of Water and Environment.	UgIFT
		Design of Piped Water System at Kamacha Rural Growth Centre.	The designs were not approved by Ministry of Water and Environment.	UgIFT
		Drilling of 2No. production wells- Kampala and Achaapa production wells.	All development works completed successfully.	UgIFT
	Moroto	Design Piped Water System at Ajokogolit, in Moroto	All Designs complete and submitted for approval. Design reports are in place Mototo did not have a piped water system construction in the FY 2022/2023.	UgIFT
		Design Piped Water System at Napaochokon, in Moroto.		UgIFT
		Design Piped Water System at Lopeduru, Naturum in Moroto.		UgIFT
		Drilling of 1 production well.		Drilling of the production well is complete

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	Nakapiripiriti	Construction of Nakale Piped Water System- Phase III.	Phase III of Nakale piped water system was implemented and installation of the reservoir tank, completing the construction of the 21No. public tap stands, installing the pump. All planned work was completed.	UgIFT
	Napak	Piped water system extension Longariama – Napak.	Piped water system extension complete and construction of storage tank for Lokiteded Trading Centre- Napak.	
		Design of Piped water system in Acukudu – Napak.	The design of Piped Water System in Acukudu complete and submitted for approval.	
		Drilling of 2 Production wells.	Drilling and rehabilitation works of 2No. production wells complete.	
	Ngora	National Water & Sewerage Corporation extension to Kokodi Town Council and Gusta Primary School community.	Extension of water to kokodi Town Council ongoing.	UgIFT
		Drilling of one production well.	Production successfully drilled for the construction of Kokide mini Piped Water System.	UgIFT
	Serere	Design and construction of Pingire Rural Growth Centre-Serere.	Pingire design complete and submitted for approval to the Ministry of Water and Environment.	UgIFT
		Construction of Apapai Rural Growth Centre Piped Water system.	Construction of Apapai Rural Growth Centre piped water supply system is complete and functional with 4No. public taps and 12No. public stand posts. The system is under a 9 months test running while the 1 st phase of Pingire mini solar scheme pending funding for 2 nd phase.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding	
	Soroti	Construction of Adamasiko Rural Growth Centre in Soroti	Phase 3 works complete and water flowing with 3No. Public stand posts and 13No. taps. There is a challenge of the land owner on which the pump house was constructed was partially settled.	UgIFT	
	Abim	Design and construction of Kanu Rural Growth Centre Piped Water System and Adea water supply systems.	Design complete and submitted for approval.	UgIFT	
		Drilling of 1 Production well in Kanu Rural Growth Centre.	Production well drilled and capped.	UgIFT	
	Nabilatuk	Construction of Nataparengan Piped Water System Phase III-Nabilatuk.	Construction of Nataparengan Piped Water System Phase III with 19No. public stand posts completed. Under the District Water and Sanitation Conditional Grant, 4No. solar panels require replacement to address the issue of nonoperational.	UgIFT	
		Design of Piped Water System in Nabilatuk.	Design of Piped Water System is ongoing. To be completed and submitted for approval.	UgIFT	
		Drilling of 3No. production well.	Drilling of production wells and boreholes complete at Ariama-ooi, Magoro and Natirae village for district headquarters, Nacele/Lokeruy under Nabilatuk, Locachat and Natirse sub counties respectively.	UgIFT and GOU	
	REGIONAL CENTER 3	Kapchorwa	Construction of Kabeywa Chepteres Gravity Flow Scheme.	Works Complete.	UgIFT
		Kween	Construction of Kaptoyoy Gravity Flow Scheme phase II.	A total of 1.3km transmission pipes was laid.	UgIFT
		Bukwo	Extension and Upgrade of Bukwo Gravity Flow Scheme in	Works done; pending rough casting of tanks and signage.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
		Sungora parish, Chepkwasta Sub County.		
	Bulambuli	Extension of Sisiyi Gravity Flow Scheme in Sisiyi and Simu Sub County.	Works done include 40m ³ reservoir tank and 8No. public tap stands.	UgIFT
		Extension of Masira Gravity Flow Scheme in Bufumbo Sub County.	Works done include with 5No. public tap stands.	UgIFT
		Design and Documentation of Bunambutye Gravity Flow Scheme.	Pending submission for design review at Ministry of Water and Environment.	UgIFT
	Sironko	Survey, design and documentation of Kazesui Gravity Flow Scheme in Zesui Sub County	Report ready pending submission to Ministry of Water and Environment for design review.	UgIFT
		Construction and extension of Buteza Gravity Flow Scheme in Namugabwe Sub County.	Works on the system are complete with 3No. public tap stands. In addition, 13No. taps were rehabilitated.	UgIFT
		Construction and extension of Butandiga Gravity Flow Scheme in Bukyabo Sub County.	Works on the system are complete with 2No. public taps.	UgIFT
		Construction and extension of Bumafwa Gravity Flow Scheme in Legenya Sub County.	Works on the system are complete and commissioned with 3No. public tap stands.	UgIFT
		Construction and extension of Masha Gravity Flow Scheme in Busiita Sub County.	Works on the system are complete and includes 3No. public tap stands.	UgIFT
		Construction and extension of Nalutaso Gravity Flow Scheme in Mutufu.	Works on the system are complete and commissioned with 5No. public tap stands.	UgIFT
		Construction and extension of Mudoko Gravity Flow Scheme in Masaba Sub County.	Works complete with 3No. public tap stands and 2No. reservoir tanks.	UgIFT
	Mbale	Construction of Bufumbo-Bubyangu Gravity Flow Scheme phase III.	Works complete with 100 m ³ reservoir tank, 10No. public tap stands.	UgIFT UgIFT
		Rehabilitation of Budwale Gravity Flow Scheme.	Works on the system are complete.	UgIFT
	Manafwa	Extension of Nangwale-Ikaali Gravity Flow Scheme for 0.1 Km (Phase 2).	All the 20 household taps have been connected, are metered and in use	UgIFT
	Bududa	Survey, design and documentation of Busiriwa Gravity Flow Scheme	Report ready pending submission to Ministry of Water and	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			Environment for design review.	
		Construction of Nakokolo/Tsatsasi Gravity Flow Scheme.	Works done include with 3No. intakes, 2No. ferro cement tanks of 10 and 30 cm ³ , 2No. brake pressure tanks, 11 km pipeline, 15No. public tap stands.	UgIFT
		Construction of Subisi Gravity Flow Scheme phase IV.	Works done include with 12.9 km pipeline, 6No. brake pressure tanks, 30 cubic metre ferro cement reservoir tank, 19No. public tap stands.	UgIFT
		Construction of Bungolo Gravity Flow Scheme phase II.	Works done include Natsalatsala spring intake, transmission pipeline of 32mm (800m) and 2.5 km service line and 6 public tap stands.	UgIFT
		Rehabilitation of Bumayoka/Bulucheke Gravity Flow Scheme.	Works done.	UgIFT
		Rehabilitation of Bududa Gravity Flow Scheme.	Works done.	UgIFT
	Namisindwa	Extension of Mukoto Gravity Flow Scheme to Watuwa Sub County.	Works done include pipe laying, construction of a 30m ³ ferrocement tank, two intakes, 16No. public tap stands.	UgIFT
		Construction of Mukhuyu Mini-Gravity Flow Scheme under Bumbo Gravity Flow Scheme.	Works done with 1No. additional tap include pipe laying, 1No. spring intake work, 10 cubic ferrocement tank, 6/5 public tap stands.	UgIFT
	Budaka	Construction of piped water system at Tademeri Subcounty.	Planned activities on the system completed. Works complete, production well of 4m ³ drilled, pipes of length 1.5km laid, pump house constructed and electrical and mechanical works completed.	UgIFT
		Construction of piped water system at Tademeri Subcounty.	Works complete.	UgIFT
	Pallisa			UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
		Design of extension of piped water supply system to oboliso sub-county, omotoi parish	Design was approved and construction of Oboliso piped water system completed. The system has pipework of length 3km and is composed of 20,000L tank, 4No. Public Stand Posts, and 2No. yard taps and is serving 3 villages (Nyairu, Idomet and Omotoi).	UgIFT
	Namutumba	Drilling of production well for Matoote piped water system.	Production well of 3.5m ³ drilled, installed and cased. The design for the piped water system will be done in FY 2023/24 to serve 4 villages of Kikalu, Matoote, Buhoolo and Izinga.	UgIFT
		Design of piped water sytem at Bubusa community in Bulange Sub County.	Design completed and approved.	UgIFT UgIFT
		Construction of Bubusa piped water system phase I.	Works for phase-I completed which consisted of only elevating a tank of 60m ³	UgIFT UgIFT
	Butebo	Design of Butebo health center IV piped water system.	Design completed and approved.	UgIFT
		Construction of a piped water system	Works completed.	UgIFT
		Design of Nasuleta trading centre piped water supply system.	Design completed and approved.	UgIFT UgIFT
	Tororo	Extension of pipe water system by 2km and installation of 1No. tap stand.	Works completed successfully. Pipeline extended by 2km to serve about 150No. households.	UgIFT
		No. 2 production wells in Katajula and Nabuyoga Sub County.	Sites were completed.	UgIFT
	Busia	Design of solar piped water system in Buhunge.	Design report submitted and approved.	UgIFT
		Design of solar Water Supply System Dakka.	Design completed and approved.	UgIFT
		Drilling of 3 production wells.	Production wells drilled.	UgIFT
	Namayingo	Construction of Mini piped water system at Buyomboni Banda Sub County Phase II.	System complete consisting of transmission network of 1.6km and distribution	UgIFT UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			network of 9km serving 6No. villages.	
		Feasibility study and detailed design of a piped water system at Sigulu Subcounty	Design completed and approved. Construction to begin in FY 2023-2024.	UgIFT
				UgIFT
	Butaleja	Extension of Nabilanda Water system.	Extension of pipeline by 8km completed.	UgIFT
				UgIFT
	Kibuku	Design for Nandere Water Supply System.	Design was completed and approved.	UgIFT
		Extension of piped water to Komodo Parish.	Works completed. Pipeline extended by about 3km to serve Komodo Parish.	UgIFT
	Kaliro	Construction of Namukooge piped water scheme.	Works complete (20 Tap stands).	UgIFT
	Kamuli	Siting and drilling of 4No. production wells; and design of 4No. piped water systems.	Designs complete awaiting submission for approval.	UgIFT
	Jinja	Design of Busegula piped water system.	Design completed. It will serve an estimate of 4,000-8,000 people in 4No. villages and also Busegula Health Centre III next financial year.	UgIFT
		Design of Kasozi piped water system	Design completed. It will serve 6No. villages with a population of 500-1,000 households.	UgIFT
		Extension of Iziru-Busede piped water system (Phase II) from Nsozibiri to Lwitamakoli.	Laying of 4.3km and 30No. taps connected.	UgIFT
	Buyende	Construction of Bugaya Piped Water Supply System.	Planned works complete. Production well drilled.	UgIFT
	Bugiri	Construction of Mayuge Piped Water System.	Planned works complete.	UgIFT
	Iganga	Extension of Nawandala Piped Water System.	Works completed.	UgIFT
		Construction of 2No. production wells	Works completed.	UgIFT
	Bugweri	Construction of Nondwe Piped Water System	Works complete.	UgIFT
	Mayuge	Construction of Busira Rural Growth Centre Piped water supply scheme 1 st Phase.	Phase one activities completed.	UgIFT
	Luuka	Siting and drilling of 2No. Production wells.	Siting and drilling of the last borehole was completed. Casting and installation complete and successful.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
		Feasibility study and design of Piped Water Scheme to serve Ikumbya Rural Growth Centre and Ikumbya Seed Secondary School.	Inception studies and detailed designs completed pending submission to Ministry of Water and Environment.	UgIFT
REGIONAL CENTER 4	LWENGO	Construction of Nkuny-Mayiira Mini-solar piped system.	Project was completed with 2No. Public Stand Posts- one with 4No. taps and the other with 3No. taps. Another tap (1No.) at a primary school.	UgIFT
	KYANKWANZI	Drilling of 1No. production well for Wattuba Rural Growth Centre Water Supply System.	Project completed. Installation of a solar system, a shallow pump, fence, transmission to 2.51km, tank of 20,000 litres and distribution of 300m.	
		Construction of Wattuba Rural Growth Centre Water Supply System.	Construction completed of water solar powered with 3No. Public Stand Posts and 9No. taps connected.	UgIFT
	BUKOMANSI MBI	Construction works for the extension of 5km piped water supply from Kisaabwa TRC-Butenga to Kisojjo TRC. -Kibinge Sub County.	Construction and payment was completed for the extension of Piped Water System with 5No. Public Stand Posts.	UgIFT
	NAKASONGO LA	Construction of Nalukonge Piped Water System-Phase I.	Phase I activities completed.	UgIFT
	GOMBA	Extension of a Piped Water System in Matongo Parish - Phase III.	Extended water to 7No. villages, installation of 32No. public tap stands and 11No. Public Stand Posts.	UgIFT
	Mukono	Construction of Misenyi Gravity Flow Scheme (Design and costruction).	Construction is at 40% and it is expected to be completed by end of FY2023/2024.	UgIFT
	Sembabule	Extension of piped water from Lwebitakuli to Nabiseke-6.1km	Water extended 1.6km and commissioned at UGX 350,908,733.	UgIFT
	Buikwe	Construction of Mpogo Piped water System Phase III.	There is a partnership with water authority managing Mpogo water systems (Umbrella-Central) and works have been completed with 6No. Public Stand Posts	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			and total of 37No. taps connected.	
	WAKISO	Construction of Bussi Solar Powered Piped Water Supply System.	Under Phase II - 200m ³ steel reservoir tank installation and 1.7km of distribution main pipeline completed. Under Phase III - 5.633km distribution pipeline and 5No. public stand posts completed.	UgIFT
		Construction of 10 Production boreholes/ drilling supervision.	10No. boreholes drilled and functioning.	UgIFT
		Drilling of a production well Wakiso Sub County.	Work completed.	UgIFT
	BUVUMA	Construction of Namatale piped water scheme phase III.	Works completed.	UgIFT
		Design of Nyenga Mini solar piped water scheme.	Works completed.	UgIFT
	RAKAI	Extension of Buyamba Piped Water supply system.	In Ddwaniro Sub County, extension of Buyamba piped water system was completed with 4No. Public Stand Posts and 8No. Tap stands.	UgIFT
	BUTAMBALA	Extension of piped water by 3.5km to Bukesa and Bukesa A village.	Additional grant from sub grant to extend water to Bukesa A, Bukesa B, Kamirangoma Villages (Ngando) with 3No. Public Stand Posts and connected to 10No. homes.	UgIFT and GOU
	KALANGALA	Construction of Buyiri Gravity Flow System.	Buyiri Gravity Flow Scheme completed.	GOU
		Construction of Mizonzi Water Supply.	Mizonzi water supply completed.	
		Buziga Water Supply (Mugoye s/c).	The contractor for Buziga water supply (Mugoye s/c) abandoned the site.	
	MITYANA	Construction of Namungo-Mpirigwa pipes water extension.	Namungo-Mpirigwa pipes water extension by 7.3km with 8No. Public Stand Posts.	UgIFT
		Construction of Kitongo solar piped water system phase I.	The works complete with 3No. Public Stand Posts.	GOU

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	MPIGI	Extension of 12Km water pipeline in Kammengo S/c.	The extension from Kammengo to Kampiringisa was completed to serve a population of 1,240No. people. The extension was a cost of UGX 274,023,305.	UgIFT
	Kiboga	Completion of Kindeke Piped Water Scheme.	Completion of distribution pipeline with 11No. public standposts.	UgIFT
	Kayunga	Construction of Bbaale Piped Water Scheme (Reservoir Tank).	Construction of Bbaale Piped Water Scheme (Reservoir Tank) in Bbaale subcounty estimated to serve 7,494No. people. The Scheme was constructed at a cost of UGX 266,540,374.	GOU/UgIFT
		Construction of Piped Water Supply Extension from Bukamba Rural Growth Centre to Kirindi Rural Growth Centre.	Construction of Piped Water Supply Extension from Bukamba Rural Growth Centre to Kirindi Rural Growth Centre in Nazigo Sub County completed. The construction was at a cost of UGX 61,169,636 with 6No. Public Stand Posts and 12No. taps.	GOU
		Extension of piped Water Supply from Kitimbwa Town to Nkokonjeru Rural Growth Centre.	Completed the extension of piped Water Supply from Kitimbwa Town to Nkokonjeru Rural Growth Centre in Kitimbwa with 5No. Public Stand Posts at a cost of UGX 13,221,057.	GOU
		Feasibility study and design of piped water system at Bbaale Rural Growth Centre	Feasibility study and design of piped water system at Bbaale Rural Growth Centre complete at a cost of UGX 50,000,000.	GOU
	MASAKA	Construction of Ddimo Piped Water Supply in Bubuliro-Kyanamukaaka.	Construction of Ddimo Piped Water Supply in Ddimo landing site of Kyanamukaaka Sub County completed with 7No. Public Stand Posts	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			and 53No. taps all together including household connections at a cost of UGX 136,726,871.	
	Kiryandongo	Drilling of a production well in Bbuliro Parish of Kyesiiga Sub County.	Drilled the production well.	UgIFT
	Kalungu	Design of piped water system in Lwabenge Sub County	Design completed and approved that cost UGX 40,000,000	UgIFT
	Kyotera	Construction of 2No. piped water systems.	Construction of piped water system costing UGX 191,968,308 shillings.	UgIFT
	Luwero	Extension of piped water system in Zirowwe Town council.	Extension activities are ongoing in Zirowwe town council. The community members are applying to have the taps connected to their homes.	UgIFT
		Design of piped water system in Sekamuli and Kayindu.	Design of Sekamili and Kayindu complete.	UgIFT
Nakaseke	Construction of Kyamutakasa mini piped water system	Design of Kyamutakasa piped water supply system st a cost of UGX 24,156,430 and construction of Kyamutakasa piped water supply system phase one at UGX 138,723,895.	UgIFT	
REGIONAL CENTER 5	Bunyangabu	Extension of Yerya Gravity Flow Scheme in Nyabusese to Kitonzi Primary School and from Rwenkubaba to Mugoma B Primary School with 4No. public stand post.	Extension of Yerya Gravity Flow Scheme completed with connection of 5No. Public Stand Posts.	UgIFT
	Hoima	Drilling of Kibanga production well.	Drilled 6No. sites.	UgIFT
	Kabarole	Construction of Busaiga water supply system in Harugongo Sub County Phase III.	Construction of Busaiga Water Supply System in Harugongo Sub County compete.	UgIFT
	Kagadi	Construction of Paachwa piped water system phase III.	Construction of Paachwa piped water system phase III completed successfully with 14No. Public Stand	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			Posts and 65No. tap stands.	
		Feasibility study and design of Ndaiga water supply system.	Ndaiga water supply system was completed successfully.	UgIFT
	Kakumiro	Construction of Mpasana Water Supply System Phase IV.	Construction of Mpasana Water Supply System Phase IV completed.	UgIFT
	Kamwenge	Extension of piped water system which will be co-financed with Water for People in Kahunge Sub County.	Extension of piped water system completed.	UgIFT
		Siting and Drilling of 02 production wells.	Drilled 2No. production wells.	UgIFT
	Kassanda	Construction of Lugongwe piped water system.	Construction of Lugongwe piped water system at contract signing.	UgIFT
	Kibaale	Construction of piped water supply in Kitutu.	Phase I completed and connected to 10 Public Stand Posts to serve people.	UgIFT
	kikuube	Drilling of 01No. production well at Kiswaza.	Drilled 01No. production well.	UgIFT
		Rehabilitation of Kikuube Health Centre IV Water Supply System.	Rehabilitation of Kikuube Health Centre IV Water Supply System completed.	UgIFT
		Construction of Nyamulima piped system.	Nyamulima piped system completed.	UgIFT
	Kyegegwa	Construction of Ntuntu Piped Water System.	Ntuntu Piped Water System Phase I completed and having 8 Public Stand Posts.	UgIFT
	Kyenjojo	Construction of Kyabaranga Piped System.	Kyabaranga Piped System Phase I completed.	UgIFT
	Mubende	Construction of Kyeza solar pipe water system phase II.	Construction of Kyeza solar pipe water system phase II is ongoing.	UgIFT
		Construction of Kyabanya solar piped water system.	Kyabanya solar piped water system completed having a connection of 39 tap stands.	UgIFT
		Construction of Kigando Grid powered water supply system phase III.	Construction of Kigando Grid powered water supply system phase III is ongoing.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	Masindi	Construction of Kikuube piped water system phase I.	Materials procured for extension under an MOU with National Water Sewerage Corporation.	UgIFT
	Bundibugyo	Rehabilitation/reconstruction of Ndungutu pipe water system.	Rehabilitation/reconstruction of Ndugutu Gravity Flow Scheme is Phased with Phase I at 70% completion with 5No. Public Stand Posts.	UgIFT
	Buliisa	Design of Uribo Water Supply System.	Consultancy for design at Advertisement level.	UgIFT
	Ntoroko	Design of Rwamabale Gravity Flow Scheme.	Design of Rwamabale Gravity Flow Scheme completed.	UgIFT
	Kasese	Makongothe gravity flow scheme in Maliba Sub County.	Phase I was completed with a 20,000 litres reservoir tank connected to the scheme and 7 public stand posts planned to serve water to Kyanya-Nyambuko RGC in FY 2023/24.	UgIFT
		Butaale piped water system in Mahango Sub County.	Phase I was completed and a sedimentation tank of 10,000 litres was constructed with 7 public stand posts. This scheme is planned to serve water to Butaale Health Centre III and Nyakabingo Primary School FY 2023/24.	UgIFT
	Kitagwenda	Construction Ntara-Kichwamba Water Supply System.	The piped water supply system is in its Phase II of construction. The water supply system will supply water to the nearby villages in Ntara Town council and Ntara Health Centre IV.	UgIFT
		Design of Ntara-Kichwamba Piped Water System.	Designs of Ntara-Kichwamba piped water system were approved by the Ministry of Water & Environment.	UgIFT
REGIONAL CENTER	Mbarara	Construction of Kyabiranga-Kigoro solar powered in Bukiro Sub County.	The system is complete and functional.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	Ibanda	Extension of Kijongo piped water system.	Kijongo water projects was completed with connection of 14No. Public Stand Posts	UgIFT
		Designs of Piped Water System.	Designs were approved by the Ministry of Water & Environment.	UgIFT
	sheema	Design of water supply system to Mabaare Health Centre III in Masheruka town council.	Design of water supply system to Mabaare Health Centre III in Masheruka completed.	UgIFT
		Overhaul and extension of piped water supply system of Katojo-Katooma-Kyahi-Kigarama seed school Phase I.	Overhaul and extension of piped water supply system of Katojo-Katooma-Kyahi-Kigarama seed school Phase I completed.	UgIFT
	Rwampara	Construction of Kamukungu and Kigaaga Rain Water Harvest Tank.	Kamukungu and kigaaga Rain Water Harvest Tank completed.	UgIFT
	Buhweju	Construction of Kajumbura Gravity Flow Scheme Phase II in Kyahenda Sub County.	Kajumbura Gravity Flow Scheme Phase II completed and its functioning with 16No. Public Stand Posts.	UgIFT
	Rubirizi	Extension of water facilities in Kyabakara Health Centre III and Ndangaro Health Centre III.	Extension of water facilities in Kyabakara Health Centre III and Ndangaro Health Centre III completed with 8No. Public Stand Posts.	UgIFT
	Ntungamo	Rehabilitation of Bwongyera Gravity Flow Scheme.	Bwongyera Gravity Flow Scheme operational.	UgIFT
		Drilling of production wells in Kyanyamuhanga-Rubaare and Kizinga-ngoma.	Production wells in Kyanyamuhanga-Rubaare and Kizinga-ngoma were sited and planned to be drilled in FY 2023/2024.	UgIFT
	Bushenyi	Construction of Kyabukumu Gravity Flow Scheme.	Construction of Kyabukumu Gravity Flow Scheme completed with 14No. Public Stand Posts.	UgIFT
		Design of kayanga Gravity Flow Scheme.	Design of kayanga Gravity Flow Scheme completed.	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
	Kiruhura	Construction of a Piped Water Supply & System in Kitura Sub County and Kashongi Sub County.	Piped water system was completed with 5No. tap stands.	UgIFT
	Rubanda	Construction of Burimbe piped water system in Ikumba s/c.	Completed the Burimbe water supply system Phase III in Ikumba Sub County with 18No. tap stands.	UgIFT
		Rehabilitation of Mirunda Gravity Flow Scheme in Muko Sub County.	Completed the rehabilitation of Mirunda Gravity Flow Scheme.	UgIFT
	Kanungu	Extension of piped water in Bugongi s/c.	Extension of piped water to 4No. villages in Bugongi s/c with 28No. Public Stand Posts and 29No. tap stands.	UgIFT
	Kabale	Design of buramba Health CentreIII in kahungye s/c.	Design complete and approved by the Ministry of Water and Environment.	UgIFT
		Construction of Buramba Health CentreIII in kahungye s/c.	Buramba Health CentreIII in kahungye s/c completed and connected to 2No. Public Stand Posts and 10No. tap stands.	UgIFT
	Rukungiri	Construction of Kateramo Water Supply System in Bwambara s/c.	Kateramo Water Supply System in Bwambara s/c completed.	UgIFT
	Kisoro	Rehabilitation of Gataare Gravity Flow Scheme in nyarubuye s/c.	Rehabilitation of Gataare Gravity Flow Scheme in Nyarubuye s/c completed and connected to 32No. Public Stand Posts.	UgIFT
	Rukiga	Rehabilitation of Nyakagabagaba Gravity Flow Scheme in Rwamucucu s/c.	Nyakagabagaba Gravity Flow Scheme in Rwamucucu s/c rehabilitation completed.	UgIFT
		Rehabilitation of Kabisha Gravity Flow Scheme in kashambya s/c.	Kabisha Gravity Flow Scheme in Kashambya s/c rehabilitation completed.	UgIFT
		Construction of Piped Water Supply System in Bukinda seed school.	Piped Water Supply System in Bukinda seed school completed.	UgIFT
	Mitooma	Construction of Mushunga-nkinga scheme.	Mushunga-nkinga scheme completed and	UgIFT

Sub - region	District	Piped Water Supply System	Progress on the Construction of Piped Water Supply System	Source Of Funding
			connected to 10No. Public Stand Posts.	
	Lyantonde	Construction of Piped Water System to Kasagama seed school and Kabetemere Health CentreIII.	Piped Water System to Kasagama seed school and Kabetemere Health CentreIII completed.	UgIFT
		Extension of Piped Water System towards Kyemamba Rural Growth Centre.	Extension of Piped Water System towards Kyemamba Rural Growth Centre completed	UgIFT
	Kazo	Construction of Akashayi piped water scheme.	Akashayi piped water scheme completed and connected to 8No. Public Stand Posts.	UgIFT
	Isingiro	Construction of Kakamba Piped Water System.	Kakamba Piped Water System completed and connected to 17No. tap stands and 5No. Public Stand Posts	UgIFT

TABLE 2: PROVISION OF PORTABLE WATER TO SEED SECONDARY SCHOOLS
Water Supply to Seed Secondary Schools in West Nile

District	Seed Secondary Schools	Progress in the Construction of Rural Water Systems-Extension of Water to Seed Secondary Schools
Adjumani	Arinyapi Seed Secondary School.	Arinyapi Seed Secondary School has no safe water source. The school will benefit from the IWMDP-Lot 3.
Koboko	Pandrobu Seed Secondary School.	Pandrobu Seed Secondary School has no water source available.
	Dranya Seed Secondary School.	The District Education Committee approved a new site for the seed secondary school from Dranya Sub County to Kuluba Sub County. Therefore, the seed school is Kuluba Seed Secondary School and not Dranya Seed Secondary School. The school has no water source available.
Maracha	Oluva Seed secondary school	Oluva Seed secondary school has a piped water scheme available under the capacity of Maracha Town Council.
	Kololo Seed secondary school	Kololo Seed secondary school awaits drilling of production well after completion of sitting.

	Maracha Seed Secondary School	The District Executive Committee approved a new site for the Seed Secondary School. The location was changed from Maracha Town Council to Agai Town Council. Agai Town Council water supply area was handed over to Nexus Green Project. Therefore, the school will be one of the beneficiaries of the Nexus Green Project.
Moyo	Dufile Seed Secondary School	Dufile Seed Secondary School motorized borehole is about 200-300m from school.
Nebbi	Atego Seed Secondary School	Atego Seed Secondary School has no borehole.
	Mamba Seed Secondary School in Kucwiny Sub County.	Kucwiny Seed Secondary School has no water source. The District Water Officer plans to drill a borehole at the school in the FY 2023/24.
	Ndhew Seed Secondary School.	Ndhew Seed Secondary School has no available water source.
Obongi	Gimara Seed Secondary School.	Gimara Seed Secondary School has a borehole available within 300m. The borehole is to be motorized and works at design stage under Ministry of Water and Environment-KFW project for Obongi Town Council.
Pakwach	Alwi Seed Secondary School.	Alwi Seed Secondary School will be supplied from Nywarwodo piped water supply system.
	Wadelai Seed Secondary School.	Wadelai Seed Secondary School will be supplied from Nyarwodo piped water supply system.
Yumbe	Kerwa Seed Secondary School.	Kerwa Seed Secondary School has no safe source. The extension of piped water to the Kerwa Seed Secondary School will be implemented by Uganda Red Cross Society with funding from Austrian Red Cross upon completion of Kerwa Piped Water Supply System that is funded by the Development Grant.
	Drajini Seed Secondary School.	Seed Secondary School has not been constructed. There is no water source at the proposed location. District planning to motorize an existing community borehole to provide water for both the school and the community in FY 2024/25.

Water Supply to Seed Secondary Schools in Lango

District	Seed Secondary Schools	Progress in construction of rural water systems-extension of water to seed secondary schools
Alebtong	Angetta seed secondary school.	There is a plan to motorize an existing borehole.
	Abia seed secondary school.	There is a plan to motorize an existing borehole within the school premises.
Amolatar	Etam Seed Secondary School.	Etam Seed Secondary School has no borehole within the proposed location of the school. The school is yet to be constructed.
Dokolo	Adeknino Seed Secondary School.	Adeknino Seed Secondary School is under construction. There is no borehole at the school.
Kole	Okwerodot Seed secondary school.	Okwerodot Seed secondary school has a source drilled and is yet to benefit from a pipe water scheme being funded by WE Consult.
	Kole Town Council Secondary school.	Kole Town Council Secondary school has a source close to the District Head Quarters. Will benefit from a massive pipe water project due for development within the district headquarters and Town council.
Lira City	Railways Division Seed Secondary School.	Railways Division Seed Secondary School has no safe water source. National Water & Sewerage Corporation extended pipes to the division.
Otuke	Orum Seed Secondary School.	Orum Seed Secondary School was fully completed and a deep borehole constructed in the school premises to provide water to the school. The borehole is fully functional.
Oyam	Ngai Seed Secondary School.	Ngai Seed Secondary School borehole will be constructed in the FY 2022/23 using funding from the Development Grant.

Water Supply to Seed Secondary Schools in Acholi

District	Seed Secondary Schools	Progress In the Provision of Water Sources to Seed Secondary Schools
Agago	Kotomor Seed Secondary School.	Kotomor Seed Secondary School has no available water source. Planned for drilling in FY 2022/23.
	Wol Seed Secondary School	Wol Seed Secondary School has an available water source.
Omoro	Lakwana Seed Secondary school	Lakwana Seed Secondary school has no available water source.

Water Supply to Seed Secondary Schools in Bukedi, Sebei, Elgon and Busoga sub regions

District	Seed Secondary Schools	Progress in construction of rural water systems-extension of water to seed secondary schools
Bulambuli	Sisiyi Seed Secondary School.	Seed Secondary School is connected to Sisiyi Gravity Flow Scheme.
Bududa	Nakatsi Seed Secondary School.	The school is connected to Bumwalukani Gravity Flow Scheme.

District	Seed Secondary Schools	Progress in construction of rural water systems-extension of water to seed secondary schools
Kaliro	Bukamba Seed Secondary School.	A borehole was drilled and installed successfully.
Namayingo	Mutumba Seed Secondary School.	The school was served with a borehole.
Busia	Sikuda Seed Secondary School.	A borehole was drilled in the neighbouring village and its functioning.
Pallisa	Akadot Seed Secondary School.	A Borehole was drilled and motorized for the school.
Bukedea	Kabarwa Seed Secondary School.	Motorization of Kabarwa seed school borehole completed with 15No. tap stands.
Butaleja	Nakwasi Seed Secondary School.	A borehole was drilled and it is functional.
District	Seed Secondary Schools	Future plans
Kapchorwa	Kaptanya Seed Secondary School.	There is no tap water within the school, thus the DLG has planned for the next FY.
Kween	Kaptum Seed Secondary School.	When the Kaproron Gravity Flow Scheme is worked on, it will serve the school as well. During the drilling of a borehole, it was discovered that the water table too low.
	Moyok Seed Secondary School.	The Food for the Hungry NGO made tap connection; however, there is no water due to the problem with Kwayiy Gravity Flow Scheme reservoir tank.
Bulambuli	Bunambutye Seed Secondary School.	The Bunambutye Gravity Flow Scheme is at design stage but it is intended to serve the school.
Manafwa	Sibanga Seed Secondary School.	The school is still under construction but upon completion, it will be connected to nearby piped water system under construction.
	Khabutoola Seed Secondary School.	The construction of the school is in plan. The borehole is within the adjacent primary school. The piped water to be connected to Nangalwe/Ikaali piped water system.
	Sisuni Seed Secondary School.	The construction of the school is in plan. Upon completion, it shall be connected to Lirima Gravity Flow Scheme.
	Butta Seed Secondary School.	The construction of the school is in plan. Upon completion, it shall be connected to Nangalwe/Ikaali Gravity Flow Scheme.
Namisindwa	Namboko Seed Secondary School.	The borehole is planned for drilling next FY 2023/24.
Kaliro	Bumanya Seed Secondary School.	The school is under construction.
Mayuge	Jaguzi Seed Secondary School.	Plan to be served next FY 2023/24 using piped water system

District	Seed Secondary Schools	Progress in construction of rural water systems-extension of water to seed secondary schools
Bugiri	Budaya Seed Secondary School.	Planned for next financial year 2023/24.
Luuka	Ikumbya Seed Secondary School.	Planned for next FY to be connected to a piped water system.
Bugweri	Naigombwa Seed Secondary School.	Planned for FY 2023/24.
Iganga	Nawanyingi Seed Secondary School.	Constructed a borehole for the community.
Kamuli	Kagumba Seed Secondary School.	Construction is ongoing and the schools have been planned for FY 23/24.
	Nabwigulu Seed Secondary School.	
Budaka	Lyama Seed Secondary School.	The school will benefit from a piped water system.
Butebo	Kacuru Seed Secondary School.	The school is under construction.
Namayingo	Buhemba Seed Secondary School.	The school is under construction.

In Central Region- Buganda Region

District	Seed Secondary School	Progress in construction of rural water systems-extension of water to seed secondary schools
Kalungu	Lukaya Seed Secondary School.	Construction completed this FY2021/2022.
Kalangala	Kachanga (Nehemiah) Seed Secondary School.	The water has been extended to school boundaries.
Kyankwanzi	Bananywa Seed Secondary School	Procurement process still on-going.
	Nsambya Seed Secondary School	The seed school is under construction.
Lwengo	Mbirizi Seed Seed Secondary School.	The planned works are under going procurement.
Mukono	Ndwademutwe Seed Secondary School.	The school is connected to Mayangayanga piped water supply system.
Mityana	Namungo Seed Secondary School	The school is connected to the piped water system.
Buikwe	Ssugu Seed Secondary School.	This has been approved for extension during the 2023/2024 financial year.
Luwero	Luwero Seed Secondary School	Due to the absence of piped water schemes at the Sub County, a deep borehole has been planned for the next financial year.
	Makulubita Seed Secondary School	A deep borehole was drilled.
	Luwube Moslem Seed Secondary School.	A deep borehole was drilled.
Kiryandongo	Kitwara Seed Secondary School	The school has a rainwater harvesting tank and a deep borehole.

In western Region

District	Seed Secondary School	Progress in the Provision of Water Sources to Seed Secondary Schools
Buhweju	Kyankanda Seed Secondary School.	The school is connected to Rubara Gravity Flow Scheme.
Bushenyi	Kabushaho Seed Secondary School.	The school is connected to National Water & Sewerage Corporation.
Isingiro	Ruborogota Seed Secondary School.	The school was connected to the Kasumanga Gravity flow scheme.
Kanungu	Katete Seed Secondary School.	The school is connected to National Water & Sewerage Corporation piped water system.
Mbarara	Bukiro -bukiro Sub County Seed Secondary School.	The school was connected kakondo Gravity Flow Scheme.
Rubirizi	Ryeru Seed Secondary School.	The school is connected through an extension of the Buyaruguru Gravity Flow Scheme.
Rukungiri	Kebisoni Seed Secondary School.	The school was served under National Water & Sewerage Corporation.
Sheema	Kigarama Seed Secondary School.	<p>The District Water Officer connected the school to an extended piped water system under management of National Water & Sewerage Corporation in the FY 2020/2021. However, there is no water supply because the school was disconnected due to high water bills.</p> <p>There are plans for an extension of Katoojo water piped system to the school in FY 2023/24.</p>
Kiruhura	Nyakashashara Seed Secondary School.	<p>The school is connected to water supply under National Water & Sewerage Corporation.</p> <p>The additional tank of 40,000 litres was provided by the district under DWSCG.</p>
	Kaaro Seed Secondary School.	Construction of the seed school is ongoing.
Ntungamo	Kanyaryeru Seed Secondary School.	Construction of the seed school is ongoing.
	Ruyonza Seed Secondary School.	Rain water harvesting tanks (24,000 litre capacity) was constructed at the school.
	Rwoho Seed Secondary School.	Rain water harvesting tanks (24,000 litre capacity) was constructed at the school.
	Kitwe Seed Secondary School.	Rain water harvesting tanks (24,000 litre capacity) was constructed at the school.

TABLE 3: PROVISION OF PORTABLE WATER TO NEWLY UPGRADED HEALTH CENTER IIs TO HEALTH CENTER IIIs

District	Health Centre II Upgrade	Progress In the Provision of Portable Water to Upgraded Health Centre IIs
Agago	Lapiriin Health Centre II	The district has no plans for extension or motorizing boreholes since the existing borehole is currently sufficient as it is only serving the Health Centre.
Alebtong	Adwir Health Centre II	One borehole is available 300m away from the Health Centre. There is need for a production well to be drilled within the health centre and motorised. This has been planned for FY 2024/25.
Amolatar	Nakatiti Health Centre II	District plans to drill borehole in FY 2023/24.
Amolatar	Alyecmeda Health Centre II	District plans to drill borehole in FY 2023/24.
Apac	Kidilani Health Centre II	One borehole available 800m away. District plans to pump test and motorise the borehole to supply water to the Health Centre in FY 2023/24.
Dokolo	Adagmon Health Centre II	Borehole drilling planned for FY 2024/2025.
Gulu	Omel Health Centre II	The district plans for a Piped water scheme supply for the Health Centre and nearby institutions and the surrounding population next FY 2023/2024.
Koboko MLG	Southern Division Health Centre II	The Koboko Municipal Council is planning to extend piped water supply to the facility from Koboko Municipal water supply system.
Koboko MLG	Lasanga Health Centre II	Koboko Municipal Council is planning to extend piped water supply to the facility from Koboko Municipal water supply system.
Kwania	Akali Health Centre II	There is a deep borehole available 700m away that the district plans to motorize in FY 2024/2025.
Lamwo	Ngomoromo Health Centre II	There is a deep borehole available 500m away that the district plans to motorize in FY 2024/2025.
Maracha	Ajikoro Health Centre II	There is a production well of 2m ³ /hr (yield) drilled by Ministry of Health in 2020/21 during the Covid-19 pandemic. The district plans to motorize the production well.
Maracha	Liko Health Centre II	The production well was sited awaiting drilling.
Maracha	Loinya Health Centre II	There is need for extension of piped water scheme from Maracha Town Council water supply system. This system is however supposed to be rehabilitated by NEXUS green and extended to serve the Health Centre. Contract already signed with Ministry of Water and Environment.
Moyo	Gbari Health Centre II	Drilling of one production well, Feasibility study and design planned for this running financial year and First Phase construction of pipe water system shall be planned for next FY 2023-2024.
Oyam	Ariba Health Centre II	Hand pump installed at the Health Centre and functional.
Oyam	Minakulu Health Centre II	Hand pump installed at the Health Centre and functional.

District	Health Centre II Upgrade	Progress In the Provision of Portable Water to Upgraded Health Centre IIs
Oyam	Alira Health Centre II	Borehole was drilled for the Health Centre however during siting, water was located 100m away. Hand pump installed and serving the health centre efficiently.
Pader	Okinga Health Centre II	District has no plans for extension or motorizing boreholes as the existing borehole is currently sufficient serve the Health Centre.
Yumbe	Kuru Health Centre II	Plans are under way to have the health center constructed.
Zombo	Otheko Health Centre II	District plans for extension of the existing (Paidha)water supply system to the Sub County.

Bukedi, Sebei, Elgon and Busoga sub regions

District	Health Centre III	Progress in construction of rural water systems to the Health Centres
Kween	Benet Health Centre III	The Health Centre was connected to Kwosir Gravity Flow Scheme.
Bulambuli	Bunangaka Health Centre III	The Health Centre was cconnected connected to Bukedea Gravity Flow Scheme.
	Bukibologoto Health Centre III	The Health Centre was connected to Sisiyi Gravity Flow Scheme.
	Bumugibole Health Centre III	The Health Centre was connected to Buginyaya Gravity Flow Scheme.
Sironko	Bundege Health Centre III	A borehole near facility was rehabilitated.
	Mutuufu Health Centre III	The Health Centre was connected to Nalutaso Gravity Flow Scheme.
Bududa	Bumusi Health Centre III	The Health Centre was connected to Nakokolo.
Namisindwa	Soono Health Centre III	Ministry of Health drilled a borehole that is to be motorised.
Kaliro	Budomero Health Centre III	A borehole was drilled.
Kamuli	Bubago Health Centre III	A borehole was drilled.
Luuka	Bukendi Health Centre III	A borehole was drilled by Uganda Drillers Association and plans are underway to upgrade to a piped water system.
Bugweri	Igombe Health Centre III	The water source constructed by the DWO and Japanese funders.
	Nawangisa (Namalemba Sub County) Health Centre III	Planning to put a water source within the premises however there is one outside the premises.
Pallisa	Akisim Health Centre III	A borehole was drilled to serve the Health Centre.
Namutumba	Namutumba Health Centre III	A borehole was drilled to serve the Health Centre.
Tororo	Namwaya Health Centre III	A borehole was drilled to serve the Health Centre.

District	Health Centre III	Progress in construction of rural water systems to the Health Centres
Kapchorwa	Ngaganta Health Centre III	There was no water but has been planned for in the FY 2023/24.
	Chemosong Health Centre III	There is planned connection under Kwomo Gravity Flow Scheme when worked on.
Kween	Kaptum Health Centre III	When the Kaproron Gravity Flow Scheme is worked on, it will serve the Health Centre as well.
	Atari Health Centre III	There was no water – a borehole has been planned for in the FY 2023/24.
	Moyok Health Centre III	Food for the Hungry NGO made tap connection; however, there is no water due to problem with Kwayiy Gravity Flow Scheme reservoir tank. District has planned to repair it.
Sironko	Simupondo Health Centre III	Application form for connection by Umbrella to Bukedea Gravity Flow Scheme was filled and submitted.
Mbale	Muruba Health Centre III	The Health centre is not yet connected. There are prospects of it being connected to the Bumbobi Gravity Flow Scheme.
Kaliro	Kasokwe Health Centre III	A borehole has been planned for the next FY.
Jinja	Busegula Health Centre III	To benefit from extension of Busegula piped water system next financial year.
Bugiri	Matiki Health Centre III	The existing borehole is to be upgraded to a solar powered system next financial year.
Mayuge	Jaguzi Health Centre III	There is a plan to serve water next FY using a mini solar system where water will be abstracted from the lake and treated.

Regional Centre 4- Wakiso Buganda Region

District	Health Centre III	Progress in construction of rural water systems to the Health Centres
Kalungu	Kabaale Health Centre III	A borehole was drilled a deep borehole in FY 2021/22.
Kalangala	Kachanga Health Centre III	The Health Centre was connected to a water supply.
	Lujabwa Health Centre III	The Health Centre was connected to a water supply.
Kyankwanzi	Kikolimbo Health Centre III	The facility has a functional deep borehole. There are plans to procure and install a 10,000 liters rain water harvesting tank.
	Sirimula Health Centre III	Plans to procure and install a 10,000 liters rain water harvesting tank are under way.
Lwengo	Kakoma Health Centre III	Works under defects liability period.
Buikwe	Nkokonjeru Health Centre II to III	Plans are under way to intensify water connections during FY 2023/2024 under the Town council.
Luwero	Katugo Health Centre III	A deep borehole was drilled but not successful (dry). Conducted another siting and a deep borehole was drilled but 300m away from the health facility.
Nakasongola		The Health Centre was connected to a water supply.

District	Health Centre III	Progress in construction of rural water systems to the Health Centres
		The Health Centre was connected to a water supply.
Kyankwanzi	Kikolimbo Health Centre III	The facility has a functional deep borehole within the vicinity, however, has also planned to procure and install 10,000 liters rain water harvesting tank during Q3 FY 2022/2023.
	Sirimula Health Centre III	Hit two dry wells within the vicinity last FY 2021-2022; however, currently has planned to procure and install 10,000 liters rain water harvesting tank during Q3 FY 2022/2023.
Lwengo	Kakoma Health Centre III	Works under defects liability period.
Kiryandongo	Apodorwa Health Centre III	The Health Centre has piped water that was provided in the last financial year.
	Panyodoli hills Health Centre III	The Health Centre was connected to a deep borehole.

Regional Centre Mbarara

District	Health Centre II Upgrade	Presence of Safe Water Source (Available or Not Available)
Buhweju	Engaju Health Centre III Kiyaja Health Centre III Mushasha Health Centre III	Engaju Health Centre III was connected to a water supply. Kiyaja Health Centre III was connected to a water supply. Mushasha Health Centre III has not been connected to a water supply.
Bushenyi	Kibazi Health Centre III	The Health Centre was connected to a water supply.
Isingiro	Busheka Health Centre II	The Health Centre was connected to a rain water harvesting system.
Kabale		
Kanungu	Kinaba Health Centre II and Ntungamo Health Centre II	The Health Centre was connected to a water supply.
Kazo	Nkungu Health Centre III	The Health Centre has not been connected to a water supply.
Rubirizi	Mubanda, Munyonyi, Ndangaro and Kyabakara Health Centre III	50% Available.
Rukiga	Upgrade of Kahama Health Centre II to Health Centre III status in Buriime parish, Rwamucucu subcounty, Rukiga District.	There are 9No. rain water harvesting tanks (4No. have a capacity of 5,000 litres & 6No. have a capacity of 10,000 litres.). There was drilling and test pumping of a deep borehole by Ministry of Health which is awaiting connection of the hand pump.
Rukungiri	Karuhembe Health Centre III	The Health Centre was connected to a water supply.
Kiruhura	Rwehnsade Health Centre III Rwetamu Health Centre III	The Health Centre was connected to a water supply. The Health Centre was connected to a water supply.

District	Health Centre II Upgrade	Presence of Safe Water Source (Available or Not Available)
	Rwabarata Health Centre III	The Health Centre was connected to a water supply.
	Kitura Health Centre III	The Health Centre has not been connected to a water supply.
Buhweju	Engaju Health Centre III	The Health Centre was connected to a water supply.
	Rushambya Health Centre III	The Health Centre has not been connected to a water supply.
	Mushasha Health Centre III	The Health Centre has not been connected to a water supply.
	Kiyaja Health Centre III	The Health Centre has not been connected to a water supply.
	Kyehara Health Centre III	The Health Centre was connected to a water supply.
Sheema	Kyeibanga Health Centre III	not available.
	Rugarama Health Centre III	The Health Centre was connected to a water supply.
	Mabaare Health Centre III	The Health Centre has not been connected to a water supply.

Annex 9A: District Sanitation and Hand washing coverage as of June 2023

District	Hand washing coverage (Hand Hygiene)	Sum of Sanitation Coverage 2023	Sum of Basic Sanitation
Abim	0.0	71.8	7.1
Adjumani	72.3	94.7	19.9
Agago	23.7	60.9	12.0
Alebtong	25.0	79.2	17.4
Amolatar	33.1	81.0	16.1
Amudat	0.0	27.6	0.6
Amuria	18.7	61.8	19.8
Amuru	14.7	64.4	35.9
Apac	41.4	88.0	34.6
Arua	30.3	71.8	17.3
Budaka	11.6	76.6	17.9
Bududa	41.6	79.1	16.6
Bugiri	43.3	70.9	29.4
Bugweri	32.7	93.6	28.7
Buhweju	31.0	89.5	15.5
Buikwe	20.7	85.5	18.6
Bukedea	58.9	72.5	10.5
Bukomansimbi	55.2	82.1	40.9
Bukwo	18.8	64.0	9.2
Bulambuli	72.2	83.7	11.0
Buliisa	39.2	68.6	7.9

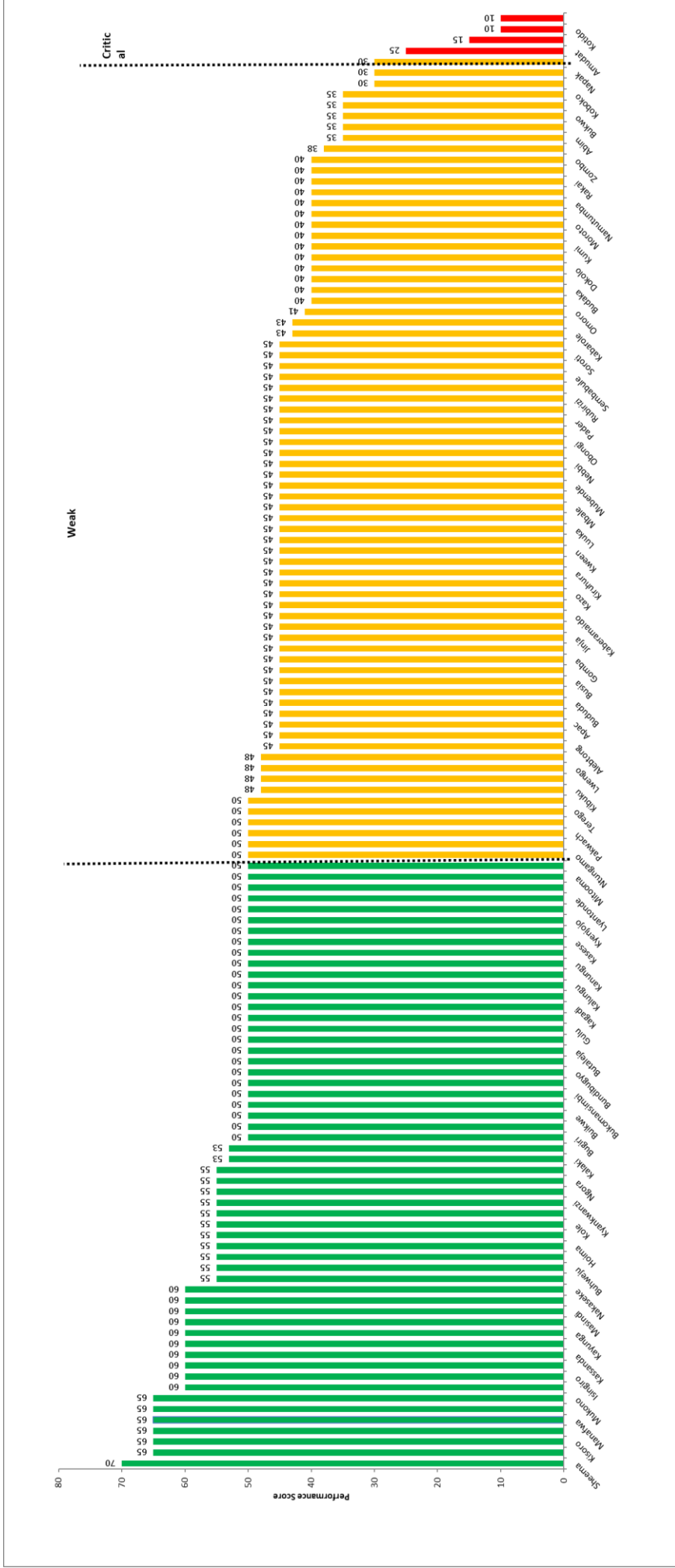
District	Hand washing coverage (Hand Hygiene)	Sum of Sanitation Coverage 2023	Sum of Basic Sanitation
Bundibugyo	38.5	73.5	27.2
Bunyangabo	46.0	89.1	24.5
Bushenyi	72.5	99.2	15.6
Busia	48.0	91.1	19.8
Butaleja	53.3	79.7	17.6
Butambala	38.0	69.1	40.0
Butebo	16.3	74.4	15.6
Buvuma	19.6	39.3	0.0
Buyende	38.5	86.3	14.4
Dokolo	22.4	75.0	19.8
Gomba	21.1	77.5	20.5
Gulu	18.1	76.2	23.9
Hoima	56.0	81.4	25.4
Ibanda	25.3	84.9	27.7
Iganga	52.9	88.1	31.0
Isingiro	23.7	78.3	21.9
Jinja	34.2	82.5	34.3
Kaabong	20.7	23.8	4.3
Kabale	25.6	85.8	10.1
Kabarole	19.4	75.0	22.3
Kaberamaido	31.6	87.3	16.7
Kagadi	25.4	73.3	6.7
Kakumiro	50.0	82.8	22.6
Kalaki	23.8	76.1	15.3
Kalangala	38.6	62.4	12.8
Kaliro	55.6	85.9	27.3
Kalungu	54.0	89.0	33.1
Kamuli	29.2	85.8	18.5
Kamwenge	39.1	74.2	20.5
Kanungu	52.0	96.0	14.3
Kapchorwa	49.5	88.8	12.0
Kapelebyong	25.2	62.8	2.4
Karenga	19.8	33.9	9.0
Kasese	28.3	81.5	21.5
Kassanda	55.9	86.4	28.1
Katakwi	38.0	76.0	6.8
Kayunga	23.5	80.5	30.0
Kazo	66.0	90.8	7.4
Kibaale	26.9	81.7	28.4
Kiboga	17.1	72.0	24.6
Kibuku	21.2	82.9	18.5
Kikuube	38.7	75.0	7.9
Kiruhura	48.6	95.7	24.1

District	Hand washing coverage (Hand Hygiene)	Sum of Sanitation Coverage 2023	Sum of Basic Sanitation
Kiryandongo	42.2	74.2	27.6
Kisoro	36.7	80.6	10.8
Kitagwenda	48.4	80.7	24.2
Kitgum	8.0	71.4	22.4
Koboko	0.0	80.3	0.0
Kole	21.3	77.8	14.8
Kotido	8.0	16.4	1.2
Kumi	21.5	72.1	20.4
Kwania	34.1	79.9	14.7
Kween	31.0	77.0	1.3
Kyankwanzi	59.4	68.5	27.8
Kyegegwa	60.0	86.4	21.2
Kyenjojo	46.5	98.2	27.7
Kyotera	60.1	72.2	52.0
Lamwo	42.3	64.4	20.4
Lira	26.8	79.4	13.1
Luuka	41.0	77.0	30.6
Luwero	49.1	84.4	31.4
Lwengo	41.0	71.8	37.2
Lyantonde	59.5	92.0	25.4
Madi Okollo	23.1	63.5	0.0
Manafwa	54.1	88.8	3.3
Maracha	33.9	71.0	19.2
Masaka	35.1	80.0	23.0
Masindi	31.5	64.0	18.3
Mayuge	89.0	82.0	13.7
Mbale	23.7	73.2	27.9
Mbarara	36.8	93.6	35.6
Mitooma	58.9	97.9	35.3
Mityana	38.6	79.4	34.7
Moroto	11.0	45.6	0.0
Moyo	48.2	85.4	26.6
Mpigi	45.0	71.0	34.0
Mubende	42.7	82.2	37.4
Mukono	54.8	88.2	35.1
Nabilatuk	1.4	16.2	0.3
Nakapiripiriti	59.0	49.0	0.4
Nakaseke	28.2	82.2	28.0
Nakasongola	46.5	72.0	29.2
Namayingo	50.5	83.4	16.6
Namisindwa	19.5	71.1	14.5
Namutumba	35.9	63.0	14.5
Napak	19.3	39.8	6.4

District	Hand washing coverage (Hand Hygiene)	Sum of Sanitation Coverage 2023	Sum of Basic Sanitation
Nebbi	41.1	73.3	21.3
Ngora	61.5	89.9	19.4
Ntoroko	11.0	56.0	17.8
Ntungamo	56.0	88.5	28.4
Nwoya	29.6	88.3	21.9
Obongi	38.6	87.0	16.5
Omoro	35.6	65.6	14.2
Otuke	21.0	83.3	12.0
Oyam	30.7	79.5	15.7
Pader	88.2	69.0	12.1
Pakwach	0.0	82.9	0.0
Pallisa	35.2	72.9	19.7
Rakai	33.6	61.7	23.9
Rubanda	41.1	92.9	4.6
Rubirizi	45.5	92.5	28.2
Rukiga	24.7	90.1	8.0
Rukungiri	13.1	99.2	16.2
Sembabule	32.0	83.4	18.6
Serere	42.8	75.9	16.8
Sheema	51.9	94.1	20.4
Sironko	97.0	83.9	15.4
Soroti	28.9	79.5	19.1
Terego	33.3	69.2	13.8
Tororo	30.0	73.2	20.1
Wakiso	51.3	80.8	49.5
Yumbe	9.9	66.2	16.3
Zombo	16.9	73.7	8.9

Source: MWE MIS Database

Annex 9B: Benchmarking District Sanitation Performance



Annex 10.1 NWSC Operational Areas as of June 2023

REGION	Administrative Area	Town/ Urban Centres	District	Number of Towns	
KAMPALA METRO-POLITAN REGION	1	Kampala Water	Kampala City	Kampala	1
			Mukono Municipality	Mukono	2
			Kira Municipality	Wakiso	3
			Nansana TC	Wakiso	4
			Wakiso TC,Buloba	Wakiso	5
			Kakiri	Wakiso	6
CENTRAL REGION	1	Entebbe	Entebbe	Wakiso	7
			Kajjansi	Wakiso	8
	2	Jinja	Jinja	Jinja	9
			Njeru	Buikwe	10
			Buwenge	Jinja	11
			Kagoma	Jinja	12
	3	Lugazi	Lugazi	Buikwe	13
			Nkonkonjeru	Buikwe	14
			Buikwe	Buikwe	15
			Najjembe	Buikwe	16
	4	Iganga	Iganga	Iganga	17
			Mayuge	Mayuge	18
			Kaliro	Kaliro	19
			Busematya	Bugweri	20
			Luuka	Luuka	21
	5	Bugiri	Bugiri	Bugiri	22
			Naluwerere	Bugiri	23
			Buwuni	Bugiri	24
	6	Mityana	Mityana	Mityana	25
	7	Masaka	Masaka	Masaka	26
			Mukungwe	Masaka	27
			Bukakata	Masaka	28
			Suunga	Kalungu	29
	8	Kalungu	Kalungu	Kalungu	30
			Lukaya	kalungu	31
	9	Sembabule	Sembabule	Sembabule	32
			Lutuuku	Sembabule	33
			Kyambi	Sembabule	34
			Nambirizi	Sembabule	35
			Mateete	Sembabule	36
			Mitete	Sembabule	37
			Ntuusi	Sembabule	38
			Lwebitakuli	Sembabule	39
	Lugushuru	Sembabule	40		
	10	Mpigi	Mpigi	Mpigi	41
	11	Buwama	Buwama	Mpigi	42
			Kyabadaza	Butambala	43
			Gombe	Butambala	44
			Kayabwe	Mpigi	45
			Kibibi	Butambala	46
12	Luweero	Luweero	Luweero	47	
		Wobulenzi	Luweero	48	
		Bombo	Luweero	49	
		Zirobwe	Luweero	50	

REGION	Administrative Area	Town/ Urban Centres	District	Number of Towns	
	13	Nakasongola	Nakasongola	Nakasongola	51
	14	Kapeeka	Kapeeka	Nakaseke	52
			Semuto	Nakaseke	53
			Nakaseke	Nakaseke	54
			Bukomero	Kiboga	55
	15	Mubende	Mubende	Mubende	56
			Kiganda	Kassanda	57
	16	Kigumba	Kigumba	Kiryandongo	58
	17	Bweyale	Bweyale	Kiryandongo	59
			Kiryandongo	Kiryandongo	60
	18	Kamuli	Kamuli	Kamuli	61
			Kisozi	Kamuli	62
			Mbulamuti	Kamuli	63
	19	Kyotera	Kyotera	Kyotera	64
			Kalisizo	Kyotera	65
			Sanje	Rakai	66
			Kakuuto	Rakai	67
			Rakai	Rakai	68
			Mutukula	Rakai	69
	20	Lwengo Area	Mabirizi	Lwengo	70
			Kyazanga	Lwengo	71
Kinoni -Lwengo			Lwengo	72	
Katovu			Lyantonde	73	
21	Kakumiro	Kakumiro	Kakumiro	74	
		Nyalweyo	Kakumiro	75	
		Kasambya	Kakumiro	76	
		Kikoola	Kakumiro	77	
		Nkooko	Kakumiro	78	
		Mpasaana	Kakumiro	79	
		Kisiita	Kakumiro	80	
NORTHERN REGION	1	Apac	Apac	Apac	81
			Aduku	Kwania	82
			Ibuje	Apac	83
			Kaye Landing Site	Apac	84
	2	Arua	Arua	Arua	85
			Wandi	Terego	86
			Omugo	Terego	87
			Kubala	Terego	88
			Okpkotani	Arua	89
	3	Gulu	Gulu	Gulu	90
			Unyama	Gulu	91
			Anaka	Nwoya	92
	4	Lira	Lira	Lira	93
			Amach	Lira	94
			Dokolo	Dokolo	95
	5	Kitgum	Kitgum	Kitgum	96
	6	Pader	Pader	Pader	97
			Pajule	Pader	98
			Patongo	Agago	99
			Kalongo	Agago	100
7	Nebbi	Nebbi	Nebbi	101	
		Paidha	Zombo	102	

REGION	Administrative Area	Town/ Urban Centres	District	Number of Towns		
		Nyapea	Zombo	103		
		Okollo	Nebbi	104		
		Parombo	Nebbi	105		
	8	Pakwach	Pakwach	Packwach	106	
	9	Adjumani	Adjumani	Adjumani	107	
	10	Koboko	Koboko	Koboko	108	
			Yumbe	Yumbe	109	
11	Moyo	Moyo	Moyo	110		
EASTERN REGION	1	Mbale	Mbale	Mbale	111	
			Budadiri	Sironko	112	
			Sironko	Sironko	113	
			Butebo	Butebo	114	
	2	Bukedea	Kachumbala	Bukedea	115	
			Bukedea	Bukedea	116	
	3	Tororo	Tororo	Tororo	117	
			Malaaba	Tororo	118	
			Nagongera	Tororo	119	
			Kwapa SC	Tororo	120	
			Mella SC	Tororo	121	
			Osukuru SC	Tororo	122	
			Busia	Busia	123	
	4	Manafwa	Bubutu SC	Namisindwa	124	
			Bunabwana SC	Manafwa	125	
			Sisuni SC	Manafwa	126	
			Butiru TB	Manafwa	127	
			Manafwa	Manafwa	128	
			Lirima	Manafwa	129	
			Lwakhakha	Manafwa	130	
			Bumbo SC	Manafwa	131	
			Buwoni SC	Manafwa	132	
			Magale	Namisindwa	133	
	5	Soroti	Soroti	Soroti	134	
			Amuria	Amuria	135	
			Serere	Serere	136	
	6	Kaberamaido	Kaberamaido	Kaberamaido	137	
			Otuboi	Kalaki	138	
			Atiriri	Amuria	139	
			Kalaki	Kalaki	140	
	7	Kumi	Pallisa	Pallisa	141	
			Ngora	Ngora	142	
			Kumi	Kumi	143	
	8	Kapchorwa	Kapchorwa	Kapchorwa	144	
			Sipi	Kapchorwa	145	
			Kaserem(Upper Sipi)	Kapchorwa	146	
	9	Moroto	Matany	Moroto	147	
			Moroto	Moroto	148	
			Kangole	Napak	149	
	10	Kotido	Kotido	Kotido	150	
			Kaabong	Kaabong	151	
	WEST & SOUTH WESTERN REGION	1	Hoima	Hoima	152	
		2	Kyankwanzi	Bukwiri	Kyankwanzi	153
				Banda	Kyankwanzi	154

REGION	Administrative Area	Town/ Urban Centres	District	Number of Towns
		Kasambya	Kyankwanzi	155
		Misango	Kyankwanzi	156
		Kyankwanzi	Kyankwanzi	157
	3 Bushenyi	Bushenyi	Bushenyi	158
		Ishaka	Bushenyi	159
		Magambo	Bushenyi	160
		Kyabugimbi	Bushenyi	161
		Irembezi	Bushenyi	162
		Buhweju/Nsiika	Buhweju	163
		Kyangyenyi	Sheema	164
	4 Mitooma	Mitooma	Mitooma	165
		Kashenshero	Mitooma	166
		Rutookye	Mitooma	167
		Kabira	Mitooma	168
		Kanyabwanga-Omukabanda	Mitooma	169
		Bitereko-Iraramira	Mitooma	170
		Kati-Rwempungu	Mitooma	171
		Mayanga-Omuribiri	Mitooma	172
		Kisiizi-Kengyera	Rukungiri	173
	5 Sheema	sheema/shuku	Sheema	174
		Kabwohe	Sheema	175
		Kitagata	Sheema	176
		Bugongi	Sheema	177
		Itendero	Sheema	178
	6 Rubirizi	Katerera	Bushenyi	179
		Rubirizi	Rubirizi	180
		Ryeru	Rubirizi	181
	7 Kisoro	Kisoro	Kisoro	182
	8 Mbarara	Mbarara	Mbarara	183
		Kinoni	Mbarara	184
		Rubindi	Mbarara	185
		Bwizibwera	Mbarara	186
		Kashaka	Mbarara	187
		Biharwe	Mbarara	188
		Kaberebere	Isingiro	189
		Nyeihanga	Mbarara	190
		Kagongi	Mbarara	191
		Nakivale	Isingiro	192
		Oruchinga	Isingiro	193
	9 Fort Portal	Fort Portal	Kabarole	194
		Kichwamba	Kabarole	195
		Kiko	Kabarole	196
		Mugusu	Kabarole	197
		Kijura	Kabarole	198
	10 Kyenjojo	Kyenjojo	Kyenjojo	199
		Katooke	Kyenjojo	200
	11 Kasese	Kasese	Kasese	201
		Rugendabara	Kasese	202
	12 Bunyangabu	Kibiito	Bunyangabu	203
		Hima	Kasese	204
		Rubona	Kabarole	205

REGION	Administrative Area	Town/ Urban Centres	District	Number of Towns
		Katebwa	Kabarole	206
		Kasunga-nyanja	Kabarole	207
		Rwimi	Bunyangabu	208
		Kicucu	Kabarole	209
		Kabale-Kabarole	Kabarole	210
	13 Masindi	Masindi	Masindi	211
	14 Kabale	Kabale	Kabale	212
	15 Rukiga	Muhanga	Rukiga	213
		Kamwezi	Kabale	214
	16 Rukungiri	Rukungiri	Rukungiri	215
		Kebisoni	Rukungiri	216
		Buyanja	Rukungiri	217
		Nyakagyeme-Rwerere	Rukungiri	218
	17 Kanungu	Kanungu	Kanungu	219
		Kihihi	Kanungu	220
		Kambuga	Kanungu	221
		Butogota	Kanungu	222
		Kanyampanga	Kanungu	223
		Kanyantorogo	Kanungu	224
		Nyamirama	Kanungu	225
		Kateete	Kanungu	226
		Nyakinoni	Kanungu	227
		Nyanga	Kanungu	228
	Kirima	Kanungu	229	
	18 Ibanda	Ibanda	Ibanda	230
		Rwenkobwa	Ibanda	231
	19 Kamwenge	Kamwenge	Kamwenge	232
		Ishongororo	Ibanda	233
		Bisozi	Kamwenge	234
		Kahunge	Kamwenge	235
		Bigodi	Kamwenge	236
		Katalyeba	Kamwenge	237
		Kabuga	Kamwenge	238
		Rukooko	Kabarole	239
	Kanara	Kamwenge	240	
	20 Lyantonde	Lyantonde	Lyantonde	241
		Kasagama	Lyantonde	242
		Kaliro	Lyantonde	243
		Kinuka	Lyantonde	244
	21 Ntungamo	Ntungamo	Ntungamo	245
		Omungyenye	Ntungamo	246
		Rubare	Ntungamo	247
		Kagarama	Ntungamo	248
		Rwentobo	Ntungamo	249
		Rweshemeire	Ntungamo	250
		Kyempene-Rugarama	Ntungamo	251
		Nyabihoko	Ntungamo	252
		Nyamunuka	Ntungamo	253
		Itojo	Ntungamo	254
	Kiziba	Ntungamo	255	
	22 Rushere	Rushere	Kiruhura	256
		Kiruhura	Kiruhura	257

REGION	Administrative Area	Town/ Urban Centres	District	Number of Towns	
		Kazo	Kazo	258	
		Sanga	Kiruhura	259	
		Kanyareru	Kiruhura	260	
		Kikatsi	Kiruhura	261	
		Kinoni	Kiruhura	262	
	23	Mpondwe	Mpondwe -Lhubirha	Kasese	263
		Katwe	Kasese	264	
		Kithoma	Kasese	265	
		Harukungu	Kasese	266	
	24	Ruhama-Kitwe	Ruhama	Ntungamo	267
		Kitwe	Bushenyi	268	
		Kikagati	Isingiro	269	
		Mirama Hills	Ntungamo	270	
		Rukoni	Ntungamo	271	
	25	Ntoroko	Kanara	Ntoroko	272
		Rwebisengo	Ntoroko	273	

Source: NWSC Database

Annex 10.2: NWSC Water Production (m3) and Capacity Utilization (%) as of 30th June 2023

Area	Practical Capacitym3/day	Total Water Produced	Average Production m3/day	Capacity Utilization (%)
Kampala	402,000	105,285,447	288,453	72%
Central Region				
Bugiri	1,188	102,557	281	24%
Buwama	1,680	320,474	878	52%
Bweyale	928	235,668	646	70%
Entebbe	30,919	9,654,746	26,451	86%
Iganga	1,296	176,377	483	37%
Jinja	30,600	9,442,126	25,869	85%
Kakumiro	1,040	44,749	123	12%
Kalungu	1,105	247,275	677	61%
Kamuli	733	221,536	607	83%
Kapeeka	5,908	733,885	2,011	34%
Kigumba	983	134,583	369	38%
Kyotera	2,640	663,678	1,818	69%
Lugazi	2,170	413,090	1,132	52%
Luweero	4,932	803,180	2,200	45%
Lwengo	913	278,157	762	83%
Masaka	9,000	2,698,779	7,394	82%
Mityana	4,800	854,873	2,342	49%
Mpigi	1,180	231,821	635	54%
Mubende	3,015	744,938	2,041	68%
Nakasongola	1,944	15,043	41	2%
Sembabule	3,729	428,948	1,175	32%
Sub Total	110,703	28,446,483	77,936	70%
Eastern Region				
Bukedea	658	99,086	271	41%
Kaabong	323	15,739	43	13%
Kaberamaido	259	75,398	207	80%
Kapchorwa	2,820	408,623	1,120	40%
Kotido	365	121,384	333	91%
Kumi	2,620	536,765	1,471	56%
Manafwa	6,400	215,921	592	9%
Mbale	17,131	2,972,984	8,145	48%
Moroto	1,918	320,978	879	46%
Soroti	7,626	1,881,842	5,156	68%
Tororo	14,003	1,701,091	4,661	33%
Sub Total	54,123	8,349,811	22,876	42%
Northern Region				
Adjumani	2,819	448,810	1,230	44%
Apac	3,777	275,610	755	20%
Arua	18,480	1,577,549	4,322	23%
Gulu	7,672	2,027,222	5,554	72%
Kitgum	3,760	390,700	1,070	28%
Koboko	1,502	350,555	960	64%
Lira	9,300	2,537,199	6,951	75%
Moyo	636	219,152	600	94%
Nebbi	2,561	838,658	2,298	90%
Pader	2,680	205,783	564	21%
Pakwach	1,500	412,449	1,130	75%

Area	Practical Capacitym3/day	Total Water Produced	Average Production m3/day	Capacity Utilization (%)
Sub Total	54,687	9,283,687	25,435	47%
Western & Southwestern				
Bunyangabu	1,800	530,543	1,454	81%
Bushenyi	4,185	1,225,159	3,357	80%
Fort Portal	4,650	1,535,675	4,207	90%
Hoima	7,984	599,244	1,642	21%
Ibanda	1,477	407,738	1,117	76%
Kabale	8,400	799,765	2,191	26%
Kamwenge	2,923	437,621	1,199	41%
Kanungu	2,490	543,072	1,488	60%
Kasese	3,827	1,304,331	3,574	93%
Kisoro	4,580	579,202	1,587	35%
Kyankwanzi	232	56,993	156	67%
Kyenjojo	672	169,981	466	69%
Lyantonde	2,948	641,097	1,756	60%
Masindi	3,300	995,397	2,727	83%
Mbarara	20,000	6,871,156	18,825	94%
Mitooma	788	217,570	596	76%
Mpondwe	2,300	495,367	1,357	59%
Ntoroko	1,884	132,047	362	19%
Ntungamo	1,826	502,731	1,377	75%
Rubirizi	30,993	275,463	755	2%
Ruhama	1,400	159,425	437	31%
Rukiga	800	69,069	189	24%
Rukungiri	887	263,701	722	81%
Rushere	1,176	187,891	515	44%
Sheema	4,330	415,511	1,138	26%
Sub Total	115,852	19,415,749	53,194	46%
TOTAL	737,364	170,781,176	467,894	63%

Source: NWSC Database

Annex 10.3 NWSC Status of Mains Extensions (Km) as of June 2023

Area	Water Mains (Km)		Sewer Mains (km)	
	New Extensions	Total Pipe Network	New Extensions	Total Pipe Network
Kampala	97.3	3,937.7	2.3	304.0
Central Region				
Bugiri	3.0	97.2	0.0	0.0
Buwama	0.0	215.0	0.0	0.0
Bweyale	2.0	190.5	0.0	0.0
Entebbe	8.8	521.8	5.7	69.4
Iganga	6.0	390.5	0.0	6.2
Jinja	15.0	859.9	1.8	91.4
Kakumiro	0.2	71.0	0.0	0.0
Kalungu	18.0	134.9	0.0	0.0
Kamuli	2.2	155.7	0.0	0.0
Kapeeka	7.0	158.6	0.0	0.0
Kigumba	10.0	243.7	0.0	0.0
Kyotera	2.2	233.8	0.0	0.0
Lugazi	0.0	220.9	0.0	0.0
Luweero	0.0	672.3	0.0	0.0
Lwengo	6.5	230.0	0.0	0.0
Masaka	10.1	379.1	0.8	27.2
Mityana	4.0	279.0	0.0	0.0
Mpigi	0.0	155.0	0.0	0.0
Mubende	0.0	290.4	0.0	0.0
Nakasongola	4.0	134.6	0.0	0.0
Sembabule	13.2	369.8	0.0	0.0
Sub Total	112.2	6,003.6	8.3	194.1
Eastern Region				
Bukedea	0.3	489.3	0.0	0.0
Kaabong	0.0	45.8	0.0	0.0
Kaberamaido	11.3	308.4	0.0	0.0
Kapchorwa	0.0	86.0	0.0	0.0
Kotido	0.0	123.2	0.0	0.0
Kumi	7.1	144.3	0.0	0.0
Manafwa	0.0	85.1	0.0	0.0
Mbale	0.9	307.2	0.0	37.4
Moroto	0.0	233.2	0.0	0.0
Soroti	5.2	618.2	0.0	25.1
Tororo	0.0	109.3	1.6	36.7
Sub Total	24.7	2,549.8	1.6	99.2
Northern Region				
Adjumani	0.0	143.4	0.0	0.0
Apac	3.0	171.7	0.0	0.0
Arua	50.0	579.9	0.7	36.6
Gulu	5.9	306.1	0.5	18.1
Kitgum	5.9	145.7	0.0	0.0
Koboko	5.2	127.7	0.0	0.0
Lira	5.0	343.8	0.0	23.3
Moyo	2.0	87.4	0.0	0.0
Nebbi	15.9	140.7	0.0	0.0
Pader	8.0	283.3	0.0	0.0
Pakwach	5.0	206.4	0.0	0.0
Sub Total	105.8	2,536.0	1.2	78.0

Area	Water Mains (Km)		Sewer Mains (km)	
	New Extensions	Total Pipe Network	New Extensions	Total Pipe Network
Western & Southwestern Region				
Bunyangabu	0.0	472.4	0.0	0.0
Bushenyi	32.4	237.6	0.0	0.0
Fort Portal	0.0	320.9	0.0	2.1
Hoima	0.6	275.6	1.5	10.1
Ibanda	20.6	321.7	0.0	0.0
Kabale	0.0	210.4	0.0	18.0
Kamwenge	4.9	502.4	0.0	0.0
Kanungu	10.4	508.5	0.0	0.0
Kasese	2.5	240.0	0.0	0.0
Kisoro	10.0	333.5	1.0	5.5
Kyankwanzi	0.0	26.0	0.0	0.0
Kyenjojo	21.0	101.0	0.0	0.0
Lyantonde	8.0	354.5	0.0	0.0
Masindi	9.5	337.6	0.0	16.2
Mbarara	7.6	826.8	0.7	34.7
Mitooma	2.0	110.3	0.0	0.0
Mpondwe	0.0	144.4	0.0	0.0
Ntoroko	3.4	76.1	0.0	0.0
Ntungamo	9.6	375.6	0.0	0.0
Rubirizi	21.0	130.9	0.0	0.0
Ruhama	11.9	292.4	0.0	0.0
Rukiga	0.0	154.0	0.0	0.0
Rukungiri	1.7	347.4	0.0	0.0
Rushere	12.1	437.7	0.0	0.0
Sheema	21.1	426.0	0.0	0.0
Sub Total	210.2	7,563.6	3.2	86.7
TOTAL	550.3	22,590.7	16.5	761.9

Source: NWSC Database

Annex 10.4 NWSC Status of Household Connections as of June 2023

Area	New Water Connections	Total Household Connections	Active Household Connections	Inactive Household Connections
Kampala	16,977	7,947	5,378	2,569
Central Region				
Bugiri	86	77	64	13
Buwama	232	203	202	1
Bweyale	195	262	255	7
Entebbe	1792	427	410	17
Iganga	467	662	638	24
Jinja	1527	1,458	1,385	73
Kakumiro	65	72	69	3
Kalungu	153	91	91	0
Kamuli	96	205	183	22
Kapeeka	202	150	150	0
Kigumba	81	111	105	6
Kyotera	273	236	219	17
Lugazi	237	216	202	14
Luweero	486	289	263	26
Lwengo	105	195	178	17
Masaka	807	400	370	30
Mityana	430	369	369	0
Mpigi	150	74	71	3
Mubende	275	263	256	7
Nakasongola	35	110	72	38
Sembabule	334	167	166	1
Sub Total	8,028	6,037	5,718	319
Eastern Region				
Bukedea	46	47	47	0
Kaabong	0	17	14	3
Kaberamaido	67	53	49	4
Kapchorwa	246	139	126	13
Kotido	49	51	35	16
Kumi	212	158	151	7
Manafwa	339	304	266	38
Mbale	1265	884	800	84
Moroto	68	110	68	42
Soroti	414	455	370	85
Tororo	529	1,156	825	331
Sub Total	3,235	3,374	2,751	623
Northern Region				
Adjumani	263	91	77	14
Apac	136	263	260	3
Arua	545	341	272	69
Gulu	1166	291	257	34
Kitgum	136	148	139	9
Koboko	172	145	137	8
Lira	568	808	685	123
Moyo	100	92	78	14
Nebbi	216	353	331	22
Pader	78	166	145	21
Pakwach	80	175	170	5
Sub Total	3,460	2,873	2,551	322
Western & Southwestern Region				

Area	New Water Connections	Total Household Connections	Active Household Connections	Inactive Household Connections
Bunyangabu	194	431	379	52
Bushenyi	620	980	964	16
Fort Portal	575	444	399	45
Hoima	211	194	177	17
Ibanda	181	217	202	15
Kabale	296	358	299	59
Kamwenge	366	777	732	45
Kanungu	303	1,014	935	79
Kasese	348	226	215	11
Kisoro	300	266	260	6
Kyankwanzi	42	34	34	0
Kyenjojo	73	39	31	8
Lyantonde	105	303	280	23
Masindi	245	311	285	26
Mbarara	1985	643	562	81
Mitooma	242	333	330	3
Mpondwe	158	254	233	21
Ntoroko	19	105	105	0
Ntungamo	321	290	250	40
Rubirizi	132	241	211	30
Ruhama	108	295	197	98
Rukiga	69	212	205	7
Rukungiri	202	381	338	43
Rushere	157	180	178	2
Sheema	405	418	405	13
Sub Total	7,657	8,946	8,206	740
TOTAL	39,357	29,177	24,604	4,573

Source: NWSC Database

Annex 10.5 NWSC Status of Pro-Poor Connections as of June 2023

Area	New PSPs	Active PSPs	Inactive PSPs	Total PSPs
Kampala	1,060	5,378	2,569	7,947
Central Region				
Bugiri	12	64	13	77
Buwama	11	202	1	203
Bweyale	30	255	7	262
Entebbe	23	410	17	427
Iganga	49	638	24	662
Jinja	101	1385	73	1458
Kakumiro	4	69	3	72
Kalungu	10	91	0	91
Kamuli	10	183	22	205
Kapeeka	24	150	0	150
Kigumba	17	105	6	111
Kyotera	6	219	17	236
Lugazi	11	202	14	216
Luweero	25	263	26	289
Lwengo	11	178	17	195
Masaka	25	370	30	400
Mityana	25	369	0	369
Mpigi	14	71	3	74
Mubende	19	256	7	263
Nakasongola	5	72	38	110
Sembabule	30	166	1	167
Sub Total	462	5,718	319	6,037
Eastern Region				
Bukedea	4	47	0	47
Kaabong	0	14	3	17
Kaberamaido	4	49	4	53
Kapchorwa	26	126	13	139
Kotido	6	35	16	51
Kumi	25	151	7	158
Manafwa	41	266	38	304
Mbale	114	800	84	884
Moroto	6	68	42	110
Soroti	9	370	85	455
Tororo	70	825	331	1156
Sub Total	305	2,751	623	3,374
Northern Region				
Adjumani	2	77	14	91
Apac	12	260	3	263
Arua	7	272	69	341
Gulu	27	257	34	291
Kitgum	34	139	9	148
Koboko	7	137	8	145
Lira	44	685	123	808
Moyo	8	78	14	92
Nebbi	8	331	22	353
Pader	14	145	21	166
Pakwach	22	170	5	175
Sub Total	185	2,551	322	2,873
Western & Southwestern Region				
Bunyangabu	8	379	52	431

Area	New PSPs	Active PSPs	Inactive PSPs	Total PSPs
Bushenyi	162	964	16	980
Fort Portal	12	399	45	444
Hoima	15	177	17	194
Ibanda	12	202	15	217
Kabale	47	299	59	358
Kamwenge	73	732	45	777
Kanungu	74	935	79	1014
Kasese	14	215	11	226
Kisoro	16	260	6	266
Kyankwanzi	8	34	0	34
Kyenjojo	9	31	8	39
Lyantonde	15	280	23	303
Masindi	6	285	26	311
Mbarara	40	562	81	643
Mitooma	62	330	3	333
Mpondwe	0	233	21	254
Ntoroko	51	105	0	105
Ntungamo	12	250	40	290
Rubirizi	9	211	30	241
Ruhama	43	197	98	295
Rukiga	48	205	7	212
Rukungiri	17	338	43	381
Rushere	9	178	2	180
Sheema	34	405	13	418
Sub Total	796	8,206	740	8,946
Total	2,808	24,604	4,573	29,177

Source: NWSC Database

Annex 10.6 NWSC Status of Sewer Connections as of June 2023

Area	New Sewer Connections	Total Sewer Connections		
		Active	Inactive	Total
Kampala	111	12,782	1632	14,414
Central Region				
Bugiri	0	0	0	0
Buwama	0	0	0	0
Bweyale	0	0	0	0
Entebbe	6	465	34	499
Iganga	2	190	45	235
Jinja	22	4,282	539	4,821
Kakumiro	0	0	0	0
Kalungu	0	0	0	0
Kamuli	0	0	0	0
Kapeeka	0	0	0	0
Kigumba	0	0	0	0
Kyotera	0	0	0	0
Lugazi	0	0	0	0
Luweero	0	0	0	0
Lwengo	0	0	0	0
Masaka	0	344	132	476
Mityana	0	0	0	0
Mpigi	0	0	0	0
Mubende	0	0	0	0
Nakasongola	0	0	0	0
Sembabule	0	0	0	0
Sub Total	30	5,281	750	6,031
Eastern Region				
Bukedea	0	0	0	0
Kaabong	0	0	0	0
Kaberamaido	0	0	0	0
Kapchorwa	0	0	0	0
Kotido	0	0	0	0
Kumi	0	0	0	0
Manafwa	0	0	0	0
Mbale	19	2,523	311	2,834
Moroto	0	0	0	0
Soroti	2	427	117	544
Tororo	0	411	145	556
Sub Total	21	3,361	573	3,934
Northern Region				
Adjumani	0	0	0	0
Apac	0	0	0	0
Arua	1	231	23	254
Gulu	14	783	77	860
Kitgum	0	0	0	0
Koboko	0	0	0	0
Lira	1	431	137	568
Moyo	0	0	0	0
Nebbi	0	0	0	0
Pader	0	0	0	0
Pakwach	0	0	0	0
Sub Total	16	1,445	237	1,682
Western & Southwestern Region				

Area	New Sewer Connections	Total Sewer Connections		
		Active	Inactive	Total
Bunyangabu	0	0	0	0
Bushenyi	0	0	0	0
Fort Portal	0	228	20	248
Hoima	0	83	31	114
Ibanda	0	0	0	0
Kabale	19	669	178	847
Kamwenge	0	0	0	0
Kanungu	0	0	0	0
Kasese	0	0	0	0
Kisoro	13	190	11	201
Kyankwanzi	0	0	0	0
Kyenjojo	0	0	0	0
Lyantonde	0	0	0	0
Masindi	1	222	31	253
Mbarara	26	801	178	979
Mitooma	0	0	0	0
Mpondwe	0	0	0	0
Ntoroko	0	0	0	0
Ntungamo	0	0	0	0
Rubirizi	0	0	0	0
Ruhama	0	0	0	0
Rukiga	0	0	0	0
Rukungiri	0	0	0	0
Rushere	0	0	0	0
Sheema	0	0	0	0
Sub Total	59	2,193	449	2,642
TOTAL	237	25,062	3,641	28,703

Source: NWSC Database

Annex 10.7 NWSC Status of Public Toilets Constructed and Cesspool Emptiers as of June 2023

#	Region / Area	Public Toilets as at June 2020	New Public Toilets Constructed		Location – 2021/22	Emptier trucks as at June 2022
			2020/21	2021/22		
1	Kampala	100	0	0	N/A	3
Central Region						
1	Jinja	0	0	0	N/A	0
2	Entebbe/Kajansi	0	0	0	N/A	1
3	Masaka	2	0	0	N/A	1
4	Kalungu	0	0	0	N/A	0
5	Mubende	0	0	0	N/A	0
6	Lugazi	0	0	0	N/A	0
7	Luweero	0	0	0	N/A	0
8	Nakasongola	0	0	0	N/A	0
9	Mityana	0	0	0	N/A	0
10	Kigumba	0	0	0	N/A	0
11	Bweyale/Kiryandongo	0	0	0	N/A	0
12	Kyotera	0	0	0	N/A	0
13	Iganga	0	0	0	N/A	1
14	Bugiri	0	0	0	N/A	0
15	Kamuli/Mbulimuti	0	0	0	N/A	0
16	Mpigi	0	0	1	Kibibi, Butambala	1
17	Sembabule	0	0	0	N/A	0
18	Kapeeka	0	0	0	N/A	0
19	Lwengo	0	0	0	N/A	0
Total Central Region		2	0	1	0	4
Eastern Region						
1	Tororo	2	0	0	N/A	0
2	Manafwa	0	2	0	N/A	0
3	Mbale	0	0	0	N/A	0
4	Bukedea	0	0	0	N/A	0
5	Soroti	0	0	0	N/A	0
6	Kaberamaido	0	3	0	N/A	0
7	Moroto	0	0	0	N/A	0
8	Kapchorwa	0	0	0	N/A	0
9	Kumi	0	0	0	N/A	0
10	Kotido	0	0	0	N/A	0
Total Eastern Region		2	5	0	0	0
Northern Region						
1	Lira	0	0	0	N/A	0
2	Gulu	29	0	0	N/A	1
3	Arua	8	0	0	N/A	1
4	Pader	0	0	3	Achol Pii, Lagile Primary School	0
4	Nebbi/Paidha	0	0	0	N/A	0

#	Region / Area	Public Toilets as at June 2020	New Public Toilets Constructed			Emptier trucks as at June 2022
			2020/21	2021/22	Location – 2021/22	
5	Kitgum	0	0	0	N/A	0
6	Apac/Aduku	0	0	1	Awila - Ibuje	0
7	Adjumani	0	0	0	N/A	0
8	Moyo	0	0	0	N/A	0
9	Koboko	0	0	0	N/A	0
10	Pakwach	0	0	0	N/A	0
Total Northern Region		37	0	4	0	2
Western & Southwestern						
1	Mbarara	0	0	0	N/A	0
2	Bushenyi/ Ishaka	0	0	4	Bushenyi, Ishaka, Kabira and Buhweju	0
3	Sheema	0	0	0	N/A	0
4	FortPortal	0	0	0	N/A	0
5	Bunyangabo	0	0	0	N/A	0
6	Kasese	0	0	0	N/A	0
7	Hoima	0	0	0	N/A	0
8	Kyankwanzi	0	0	0	N/A	0
9	Masindi	0	0	0	N/A	0
10	Kabale	0	0	0	N/A	0
11	Kisoro	0	0	0	N/A	0
12	Rukungiri	0	0	2	Rukungiri Municipality offices and Ntungamo Stage	0
13	Ibanda	0	0	0	N/A	0
14	Kamwenge	0	0	0	N/A	0
15	Kanungu	0	0	0	N/A	0
16	Lyantonde	0	0	0	N/A	0
17	Rushere	0	0	0	N/A	0
18	Ntungamo	0	0	0	N/A	0
19	Mpobdwe	0	0	0	N/A	0
20	Ruhaama	0	0	0	N/A	0
21	Rubirizi	0	0	0	N/A	0
22	Ntoroko	0	0	0	N/A	0
Total Western & Southwestern		0	0	6	N/A	0
Overall Total		141	5	11	N/A	9

Source: NWSC Database

Annex 10.8 NWSC Percentage of Water Supply Systems Operated Using Solar Energy Packages as at June 2023

#	Region / Area	Solar Powered Systems as at			New Solar Systems Installed			Solar Powered Systems as at			Hydro - electricity	Generator/ Fuel	Gravity Flow	% of Green Energy
		June 2020	FY 2020/21	FY 2021/22	June 2021	June 2022	June 2022	June 2022						
1	Kampala	0	0	0	0	0	20	1	0	0%				
Central Region														
1	Jinja	0	0	0	0	0	5	0	0	0%				
2	Entebbe/Kajansi	0	0	0	0	0	2	0	0	0%				
3	Masaka	0	0	0	0	0	5	0	0	0%				
4	Kalungu	0	0	0	0	0	4	3	0	0%				
5	Mubende	0	0	0	0	0	7	0	0	0%				
6	Lugazi	2	0	0	2	2	11	0	0	15%				
7	Luweero	2	0	0	2	2	17	0	0	11%				
8	Nakasongola	0	0	0	0	0	0	0	0	0%				
9	Mityana	0	0	0	0	0	4	0	0	0%				
10	Kigumba	0	0	0	0	0	4	0	0	0%				
11	Bweyale/Kiryandongo	0	0	0	0	0	7	0	0	0%				
12	Kyotera	0	0	0	0	0	21	0	0	0%				
13	Iganga	2	0	0	2	2	6	1	0	22%				
14	Bugiri	0	0	0	0	0	4	1	0	0%				
15	Kamuli/Mbulimuti	0	0	0	0	0	6	1	0	0%				
16	Mpigi	0	0	0	0	0	2	0	0	0%				
17	Sembabule	1	0	0	1	1	4	0	0	20%				
18	Kapeeka	0	0	0	0	0	7	0	0	0%				
19	Lwengo	0	0	0	0	0	4	0	0	0%				
	Subtotal Central	7	0	0	7	7	120	6	0	5%				
Eastern Region														
1	Tororo	0	1	0	1	1	16	0	0	6%				
2	Manafwa	2	0	0	2	2	0	0	1	67%				
3	Mbale	0	0	0	0	0	5	0	1	0%				
4	Bukedea	0	0	0	0	0	4	0	0	0%				
5	Soroti	1	0	0	1	1	4	0	0	20%				
6	Kaberamaido	1	0	0	1	1	1	0	0	50%				
7	Moroto	1	0	1	2	2	7	1	0	20%				
8	Kapchorwa	0	0	0	0	0	3	0	1	0%				
9	Kumi	0	0	0	0	0	5	0	0	0%				
10	Kotido	3	0	0	3	3	3	1	0	43%				
	Subtotal Eastern Region	8	1	1	10	10	48	2	3	16%				
Northern Region														
1	Lira	0	0	0	0	0	2	0	0	0%				
2	Gulu	2	0	1	3	3	7	0	0	30%				

#	Region / Area	Solar Powered Systems as at		New Solar Systems Installed		Solar Powered Systems as at		Hydro - electricity	Generator/ Fuel	Gravity Flow	% of Green Energy
		June 2020	FY 2020/21	FY 2021/22	June 2022						
3	Arua	2	0	0	2	7	3	0	17%		
4	Pader	0	0	1	1	8	2	0	9%		
5	Nebbi/Paidha	0	0	0	0	6	3	0	0%		
6	Kitgum	0	1	1	2	9	0	0	18%		
7	Apac/Aduku	0	1	0	1	10	0	0	9%		
8	Adjumani	0	0	0	0	8	0	0	0%		
9	Moyo	0	0	0	0	4	0	0	0%		
10	Koboko	2	0	0	2	2	4	0	25%		
11	Pakwach	0	0	0	0	1	0	0	0%		
Subtotal Northern Region		6	2	3	11	64	12	0	13%		
Western and Southwestern Region											
1	Mbarara	0	0	0	0	8	0	0	0%		
2	Bushenyi/ Ishaka	0	1	1	2	20	0	0	9%		
3	Sheema	1	0	0	1	3	0	6	10%		
4	FortPortal	0	0	0	0	3	0	0	0%		
5	Bunyangabo	0	0	0	0	0	0	1	0%		
6	Kasese	0	0	0	0	1	0	0	0%		
7	Hoima	0	0	0	0	9	0	0	0%		
8	Kyankwazi	0	0	0	0	1	2	1	0%		
9	Masindi	0	0	0	0	1	0	0	0%		
10	Kabale	0	0	0	0	3	0	3	0%		
11	Kisoro	1	0	0	1	2	0	0	33%		
12	Rukungiri	0	0	0	0	9	0	4	0%		
13	Ibanda	0	0	1	1	2	0	6	11%		
14	Kamwenge	6	0	1	7	5	0	0	58%		
15	Kanungu	2	0	0	2	12	0	0	14%		
16	Lyantonde	0	0	0	0	1	2	0	0%		
17	Rushere	0	0	0	0	9	2	0	0%		
18	Ntungamo	0	0	0	0	10	0	4	0%		
19	Mpondwe	0	0	0	0	2	0	1	0%		
20	Ruhama	1	0	0	1	7	1	0	11%		
21	Rubirizi	0	0	0	0	0	0	1	0%		
22	Ntoroko	1	0	0	1	1	1	0	33%		
Subtotal Northern Region		12	1	3	16	109	8	27	10%		
Overall Total		33	4	7	44	361	29	30	9%		

Source: NWSC Database

Annex 10.9 NWSC Number of Staff as of June 2023

Area	Male	Female	Total Staff	% Female	Water Connections	Staff Productivity
Kampala	1,214	594	1808	33%	411,819	4
Central Region						
Bugiri	10	3	13	23%	1,869	7
Buwama	12	10	22	45%	3,239	7
Bweyale	13	2	15	13%	2,700	6
Entebbe	77	63	140	45%	46,424	3
Iganga	30	17	47	36%	11,211	4
Jinja	98	36	134	27%	37,029	4
Kakumiro	3	1	4	25%	1,120	4
Kalungu	15	5	20	25%	2,810	7
Kamuli	16	3	19	16%	3,661	5
Kapeeka	14	9	23	39%	3,339	7
Kigumba	13	7	20	35%	2,284	9
Kyotera	29	11	40	28%	6,823	6
Lugazi	14	14	28	50%	5,470	5
Luweero	30	17	47	36%	11,517	4
Lwengo	5	12	17	71%	3,280	5
Masaka	56	26	82	32%	19,088	4
Mityana	21	7	28	25%	7,676	4
Mpigi	16	6	22	27%	3,178	7
Mubende	16	15	31	48%	6,770	5
Nakasongola	4	2	6	33%	2,117	3
Sembabule	22	7	29	24%	2,931	10
Subtotal	514	273	787	35%	184,536	4
Eastern Region						
Bukedea	10	5	15	33%	1,280	12
Kaabong	4	1	5	20%	559	9
Kaberaido	8	3	11	27%	936	12
Kapchorwa	15	5	20	25%	2,892	7
Kotido	10	1	11	9%	668	16
Kumi	25	9	34	26%	3,904	9
Manafwa	15	7	22	32%	5,977	4
Mbale	83	30	113	27%	22,286	5
Moroto	12	3	15	20%	1,650	9
Soroti	38	12	50	24%	10,715	5
Tororo	48	17	65	26%	15,367	4
Subtotal	268	93	361	26%	66,234	5
Northern Region						
Adjumani	12	5	17	29%	3,878	4
Apac	20	6	26	23%	2,983	9
Arua	35	11	46	24%	11,591	4
Gulu	56	15	71	21%	12,780	6
Kitgum	21	5	26	19%	5,031	5
Koboko	12	4	16	25%	2,526	6
Lira	54	13	67	19%	17,023	4
Moyo	12	0	12	0%	2,916	4
Nebbi	21	8	29	28%	6,141	5
Pader	23	9	32	28%	3,751	9
Pakwach	12	2	14	14%	2,285	6
Subtotal	278	78	356	22%	70,905	5
West & Southwestern Region						
Bunyangabu	16	9	25	36%	5,007	5

Area	Male	Female	Total Staff	% Female	Water Connections	Staff Productivity
Bushenyi	45	11	56	20%	9,332	6
Fort Portal	31	15	46	33%	13,064	4
Hoima	16	8	24	33%	7,026	3
Ibanda	11	11	22	50%	6,139	4
Kabale	29	6	35	17%	8,059	4
Kamwenge	26	7	33	21%	6,510	5
Kanungu	23	7	30	23%	6,530	5
Kasese	26	11	37	30%	9,623	4
Kisoro	20	5	25	20%	5,333	5
Kyankwanzi	4	0	4	0%	221	18
Kyenjojo	7	2	9	22%	2,607	3
Lyantonde	17	8	25	32%	3,232	8
Masindi	21	8	29	28%	7,434	4
Mbarara	100	60	160	38%	35,371	5
Mitooma	13	6	19	32%	2,850	7
Mpondwe	14	10	24	42%	4,682	5
Ntoroko	12	1	13	8%	831	16
Ntungamo	21	11	32	34%	5,558	6
Rubirizi	17	4	21	19%	2,145	10
Ruhama	14	5	19	26%	2,595	7
Rukiga	9	5	14	36%	1,252	11
Rukungiri	20	11	31	35%	4,867	6
Rushere	15	15	30	50%	2,860	10
Sheema	22	15	37	41%	6,978	5
Subtotal	549	251	800	31%	160,106	5
Total	2,823	1,289	4,112	31%	893,600	5

Source: NWSC Database

Annex 11 Annual Performance of Umbrella Authority of Water and Sanitation

Performance of Northern Umbrella Authority of Water and Sanitation (FY 2021/22 - FY 2022/23)

Key Performance Indicators	Baseline (2018)	Financial year 2021/22						Financial year 2022/23				
		Target	QTR 1	QTR 2	QTR 3	QTR 4	Achieved	QTR 1	QTR 2	QTR 3	QTR 4	Achieved
Technical												
New Connections	582	1100	289	766	975	275	2305	447	598	467	931	2443
Non-Revenue Water	39	30	30	29	27.9	25.46	28	25	32	27	28.1	28.1
Metering Ratio	100	100	100	100	94	94	97	94	94	94	98	98
Continuity of supply	8	16	23	23	23	20	89	20	20	20	21	21
Water quality Compliance	60	80	95	95	96	96.14	95	96	94	94	95	95
Technical Sustainability												
Backstopping Support	70	95	78	78	70	129		72	96	72	72	72
Commercial												
Active Connections	5,252	8,052	8606	9176	9,965	11,756	27,747	12,255	13,185	14,024	14,657	14657
Water sales growth	309,610	390,010	157,594	183,410	242,790	147,060	583,794	183,771	195,816	275,485	217,436	872508
Collection efficiency	65	85	93	90	85	85		86	91	82	80	80
Financial Viability												
Operating cost coverage ratio	40	80	80	94	94	80	87	84	90.7	90.7	86.12	86.12
Budget for investments		0	0	0				0	0	0	0	0
Pro-Poor												
Pro-Poor Connections Growth	50	50	49	23	388	13	473	20	113	177	287	597
Customer Satisfaction												
Customer Satisfaction	75	85	90	89	88.7	85	85	85	85.5	85.5	85.5	85.5

Performance of South-Western Umbrella Authority of Water and Sanitation (FY 2021/22 - FY 2022/23)

Performance Scorecard	FY 2021/22										FY 2022/23				
	KPIs	CAS Acronym	Unit	Baseline	Target Year 3	Q1	Q2	Q3	Q4	Achieved	% achieve	Q1	Q2	Q3	Q4
Technical															
New Connections	NWC	No.	473	1200	595	351	411	517	1357	113.08	836	1,236	1039	1,346	
Non-Revenue Water	NRW	%	37	28	41.3	38	24	32	33.9	121.07	31	18	31	39	
Metering Ratio	MR	%	80	100	100	100	92	95	96.8	96.80	89	N/A	87	98	
Continuity of supply (Functionality)	CS	Hrs/Day	12	15	15	15	18	16	16	106.67	16	16	16	16	
Water quality Compliance	WQC	%	85	90	97.87	93	96	97	96	106.67	96	97	96	95	
Technical Sustainability															

Performance Scorecard		FY 2021/22									FY 2022/23			
Backstopping Support	TBS	%	40	60	20	20	20	30	22.5	37.50	20	87	86	86
Commercial														
Active Connections	AC	No.	16700	20,000	24,665	25,493	26,343	26,803	26,803	134.02	22,412	23,180	21,039	26,216
Water sales	WS	m3 /Qtr	348000	600,000	391,135	353,950	419,453	369,090	1,532,850	255.48	390,442	386,151	412,589	391,748
Collection efficiency	CF	%	82	95	94	94	93	99	95	100	94	93	92	88
Financial viability														
Operating cost coverage ratio	OCR	%	90	110	108.89	108	104	103	106	96.36	1.2	110	100	60
Budget for investments	BI	%	0	10	0	0	0	0	0	-	0	10	0	0
Pro-Poor														
Pro-Poor Connections Growth	PPC	No.	20	200	0	24	2	7	33	16.50	11	11	13	44
Customer Satisfaction														
Customer Satisfaction	CS	%	78	87	86	86	86	85	85.8	98.62	76	62	6	69

Performance of Mid-Western Umbrella Authority of Water and Sanitation (FY 2021/22 - FY 2022/23)

KPIs	Unit	FY2018-19			FY2021-22					FY 2022/23			
		Baseline	Target Year 3	Q1	Q2	Q3	Q4	Annual Performance	Q1	Q2	Q3	Q4	
TECHNICAL													
New Connections	No.	1184	15000	360	274	269	464	1367	169	742	368	761	
Non-Revenue	%	26.6	14	29.2	34	31	33	31	36	43	40	38	
Metering Ratio	%	66.5	98	87	86	91	96	91	99.6	95	93	93	
Continuity of supply(functionality)	Hrs/ Days	13	18	18	19	19	18	18.5	N/A	15	N/A	N/A	
Water Quality compliance	%	75	95	92.2	92.2	95.7	95.2	95.2	93.5	96.7	96.4	97.7	
TECHNICAL SUSTAINABILITY													
Back stopping support	%	39.4	20	5	5	5	5	8	N/A	N/A	N/A	N/A	
Active Connections	No.	8105	40370	13795	14423	15031	14,605	14,605	14,395	15,164	14,767	16,112	
Water sales growth	cm/Qtr	816540	2755822	238,867	204625.6	286173	242,297	971962.6	268,291	329,590	266,025	252,019	
Collection Efficiency	%	71.8	95	95	86	86	92	91	96	91	86	89	
FINANCIAL VIABILITY													
Operating Cost Coverage	%	78.8	170	98	64	86	75.5	81	88	48	154	160	
Budget for Investment	%	0	70	n/a	3	8		8	N/A	0	N/A	N/A	
PRO-POOR													
Pro-poor Connections	No.	21	240	8	19	14	0	41	4	3	10	2	
CUSTOMER SATISFACTION													
Customer satisfaction	%	68	90	63	68	68	60	65	N/A	85	N/A	N/A	

Performance of Central Umbrella Authority of Water and Sanitation (FY 2021/22 - FY 2022/23)

Performance Scorecard		FY 2021/22									FY 2022/23				
		FY 2018-19													
KPIs	CAS Acronym	Unit	Baseline	Target Year 3	Q1	Q2	Q3	Q4	Achieved	% achieved	Q1	Q2	Q3	Q4	Achieved
Technical															
New Connections	NWC	No.	473	1200	595	351	411	517	1357	113.08	836	1,236	1039	1,346	4457
Non-Revenue Water	NRW	%	37	28	41.3	38	24	32	33.9	121.07	31	18	31	39	31
Metering Ratio	MR	%	80	100	100	100	92	95	96.8	96.80	89	100	87	98	93.5
Continuity of supply (Functionality)	CS	Hrs/Day	12	15	15	15	18	16	16	106.67	16	16	16	16	16
Water quality Compliance	WQC	%	85	90	97.87	93	96	97	96	106.67	96	97	96	95	96
Technical Sustainability															
Backstopping Support	TBS	%	40	60	20	20	20	30	22.5	37.50	77	0	86	0	40.75
Commercial															
Active Connections	AC	No.	16700	20,000	24,665	25,493	26,343	26,803	26,803	134.02	22,412	23,180	21,039	26,216	26,216
Water sales	WS	m3/Quarter	348000	600,000	391,135	353,950	419,453	369,090	1,532,850	255.48	390,442	386,151	412,958	391,748	158,093
Collection efficiency	CF	%	82	95	94	94	93	99	95	100.00	94	92	92	88	92
Financial viability															
Operating cost coverage ratio	OCR	%	90	110	108.89	108	104	103	106	96.36	100	100	100	60	90
Budget for investments	BI	%	0	10	0	0	0	0	0	-	0	10	0	0	0
Pro-Poor															
Pro-Poor Connections Growth	PPC	No.	20	200	0	24	2	7	33	16.50	11	11	13	44	79
Customer Satisfaction															
Customer Satisfaction	CS	%	78	87	86	86	86	85	85.8	98.62	76	62	68	69	68.75

Performance of Karamoja Umbrella Authority of Water and Sanitation (FY 2021/22 - FY 2022/23)


KPIs	CAS Acronym	Unit	Base line	Financial Year 2021-22							Financial Year 2022-23				
				Target year 2	Q1	Q2	Q3	Q4	Achieved	Weight %	Q1	Q2	Q3	Q4	
Technical											40%				
New Connections	NWC	No.	730	1,100	292	178	180	158	630	5%	47	121	201	92	
Non-Revenue Water	NRW	%	37	25	27.3	42	27	33	29.63	20%	32	28	24	24.3	
Metering Ratio	MR	%	90.4	96	100	100	97	95	95.2	5%	94	97	87	99	
Continuity of supply (Functionality)	CS	Hrs/Day	9	13	10	10	11	12	9	5%	n/a	n/a	n/a	10.2	
Water quality Compliance	WQC	%	80	96	95.7	79	70	80	89	5%	87.9	91.2	87.8	84.4	
Technical Sustainability											5%				
Backstopping Support	TBS	%	80	90	57	43	28.6	57	65	5%	n/a	n/a	n/a	n/a	

KPIs	CAS Acronym	Unit	Base line	Financial Year 2021-22							Financial Year 2022-23			
				Target year 2	Q1	Q2	Q3	Q4	Achieved	Weight %	Q1	Q2	Q3	Q4
Commercial										20%				
Active Connections	AC	No.	1835	4,635	2,344	2,522	2,670	2,689	2,689	6%	2,767	3,171	3,114	3,338
Water sales	WS	m3 /Qtr	162,528	410,515	35,690	38,421	51,307	34,397	159,815	6%	38,651	43,323	54,413	44,060
Collection efficiency	CF	%	60	80	70.4	82	60	73	79	8%	78	64.1	64	64
Financial viability										15%				
Operating cost coverage ratio	OCR	%	70	110	114	109	137	110	127	8%	n/a	94.3	161	48.7
Budget for investments	BI	%	0	10	14	9	37	10	22	7%	n/a		n/a	n/a
Pro-Poor										10%				
Pro-Poor Connections Growth	PPC	No.	15	60	1	2	0	0	3	10%	0	0	0	7
Customer Satisfaction										10%				
Customer Satisfaction	CS	%	72.6	85	n/a	n/a	n/a	n/a	-	10%				
										100%			n/a	n/a

Performance of Eastern Umbrella Authority of Water and Sanitation (FY 2021/22 - FY 2022/23)

KPIs	Unit	Baseline FY 2019-20	Financial Year 2021-22							Financial Year 2022-23				
			Target Year 2	Q1	Q2	Q3	Q4	Achieved	Weight %	Target Year 2	Q1	Q2	Q3	Q4
Technical										40%				
New Connections	No.	989	1,200	196	486	577	564	1823	5%		908	579	513	338
Non-Revenue Water	%	40	35	32.8	33	27	28	30.9	20%		30	24	33	33
Metering Ratio	%	70	90	98.5	100	94.4	96	94.4	5%		96	96	94	96
Continuity of supply (Functionality)	Hrs/Day	10	12	21	21	22	22	-	5%		18	18	19	18
Water quality Compliance	%	80	85	91	91	96	96	92.5	5%		100	97	99	97
Technical Sustainability										5%				
Backstopping Support	%	55	45	15	15	34	34	56.25	5%		62	62	34	62
Commercial										20%				
Active Connections	No.	10,300	11,300	13,598	14,587	14,511	15,910	15,910	6%		16,760	17,879	17,536	20,312
Water sales	m3 /Qtr	36,733	40,000	186,665	201,047	239,830	201,436	828,978	6%		207,769	226,317	263,651	247,830
Collection efficiency	%	76.4	85	92.9	94	80	87	80	8%		95	95		89
Financial viability										15%				
Operating cost coverage ratio	%	90	102	175	169	113	125	113	8%		125	78	69	78
Budget for investments	%	0	25	0	0	31	31	0	7%		31	N/A	N/A	N/A
Pro-Poor										10%				

KPIs	Unit	Baseline FY 2019-20	Financial Year 2021-22							Financial Year 2022-23				
			Target Year 2	Q1	Q2	Q3	Q4	Achieved	Weight %	Target Year 2	Q1	Q2	Q3	Q4
Pro-Poor Connections Growth	No.	10	40	0	0	0	0	0	10 %		0	0	0	0
Customer Satisfaction									10 %					
Customer Satisfaction	%	64	85	95	95	0	0	-	10 %		0	N/A	0	0
									100 %					



**MINISTRY OF WATER AND ENVIRONMENT
P. O. BOX 20026
PLOT 3-7 KABALEGA CRESCENT**