



THE REPUBLIC OF UGANDA

MINISTRY OF WATER AND ENVIRONMENT

**WATER AND ENVIRONMENT SECTOR PERFORMANCE
ON THE NATIONAL RESISTANCE MOVEMENT MANIFESTO (2021-2026)
COMMITMENTS**

**BY
HON. CHEPTORIS SAM
MINISTER OF WATER AND ENVIRONMENT**

15TH MAY 2023

H.E The President
H.E The Vice President
The Rt. Hon. Prime Minister
Rt. Hon. Deputy Prime Ministers
My Colleagues – Cabinet Ministers
Hon. Members of Parliament
Distinguished Officers in the Civil Service
Ladies and Gentlemen,

Hon. Minister, first and foremost, allow me to thank you and the organizers for the opportunity rendered to the Water and Environment Sector (W&E Sector) to present its performance on NRM Manifesto (2021-2026) commitments and the challenges encountered during the implementation period.

1.0. Introduction

- 1.2. It is important for all of us to note that Water and Environment is a key sector of the economy because it provides a cushion to all the other sectors by way of providing nearly all inputs in the production processes and human living. Human livelihood entirely depends on the Water and Environment sector. Water and Environment sector has the potential to deliver both on growth and socio-economic transformation as stipulated in the NRM Manifesto as well as in the country's National Planning Framework.
- 1.3. The availability of adequate water resources is a critical driver in hydro-power development, agricultural production and productivity, livestock, fisheries, health, industrial development, tourism development and mitigation of climate and climate change effects. A healthy, clean and productive environment is essential in boosting wealth creation for social transformation and sustainable development since it reflects the balance between the demand and supply of

natural resources on one hand and the absorption and supply of waste products on the other hand in the development process.

1.4. The sector strategic focus is to increase access to safe and clean water as well as improved sanitation by increasing piped water coverage in both urban and rural areas so that water is brought nearer to the users with at least a source per village. Efforts have been made to increase storage and invest in construction of multipurpose water reservoirs to boost production and productivity in the key sectors of the economy, as well as promoting massive tree planting and restoration of the degraded ecosystems country-wide.

1.5. The MWE is specifically responsible for the following key thematic areas namely

- (i) Rural Water Supply and sanitation,
- (ii) Small Towns Water Supply and Sanitation,
- (iii) Large Water Supply and Sanitation,
- (iv) Water Resources Management,
- (v) Natural Resources Management, and
- (vi) Water for Production/Irrigation.

2.0. Summary of sector achievements on key milestones in the manifesto implementation.

2.1. RURAL WATER SUPPLY AND SANITATION

The Ministry through the rural water supply department has to date constructed **150,837** water supply facilities comprising of **42,007** deep boreholes, **21,722** shallow wells, **29,261** protected springs, **37,480** Public Stand Post (PSP)/taps and **20,367** rainwater harvesting tanks. It is estimated that **70** percent (**33,180,420 people**) (68% in the rural and 71.6% in the urban) of the current population have

access to clean and safe water services while **30** percent (**14,220,000 people**) of the population are without access to clean and safe water services.

There are **70,512** villages in the country out of which **49,102** villages representing (**70%**) have access to at least one safe water source. Despite all the water developments and initiatives stated above, there are still about **21,410** villages (**30%**) without any safe and clean water source.

i) Completed water supply systems

The ministry completed construction of the following water supply systems

- Kibuku District has two (02) piped water systems developed in Buseta Rural Growth Centre serving populations of **2,276** and Kasasira Rural Growth Centre serving populations of **5,676**.
- These two (02) piped water systems were constructed in Kameke Rural Growth Centre serving **1,546** people and Kapala Rural Growth Centres serving **2,735** people.
- Lirima GFS Phase II serves a total of **40,800** persons. For further management, the system is under the National Water and Sewerage Cooperation.
- Bukedea GFS-Phase I is serves a total of **60,624** persons. The system is under the management of Umbrella Organization – East for further management.
- Orom GFS, at the time of handover to Umbrella Organization- North, **446** connections (431No. yard taps, 15No. public stand posts and 3No. toilet facilities) had been made serving a total of **13,344** persons.
- Shuuku and Masyoro (Sheema) was 100% completed and at the time of handover, there were **300** connections serving **7,200** persons. The system was handed over to National Water and Sewerage Cooperation for further management.

ii) Ongoing Construction Works

- Nyabuhikye and Kikyenkye (Ibanda) is 90% complete and has **1000** promotional connections.
- Kabuyanda water supply and sanitation in Isingiro is at 90% completion with 850 connections made to the system serving **20,400** persons.
- There has been no progress made for Bukedea Phase II (Sironko, Kween, Kapchorwa, Bulambuli), Rwebisengo – Kanaara Phase II (Ntoroko), Orom Phase II (Kitgum/Agago/Pader) water systems. However, the Ministry of Water and Environment is securing financing from African Development Bank for Phase II.
- The construction of Bitsya Gravity Flow System in Buhweju District- The contract was awarded and the contractor is mobilizing to start works.
- The construction of Nyamugasani Water supply system in Kasese District- The contract was awarded and the contractor is mobilising to start works.
- The construction of Bwambara - Bugangari (Rukungiri district); Ngoma – Wakyato (Nakaseke district) and Potika (Lamwo district) was affected by the cancellation of the USD 94.594 million offered by EXIM Bank of India for the development of Large Gravity Flow Schemes across the country.

iii) Drilling of environmentally friendly boreholes country wide.

- ❖ **422** new point water sources including 323 hand pumped wells *and 99 production wells have been drilled and constructed across the country serving 126,600 persons.* These interventions mainly focused on least served districts of Buvuma, Buyende, Bundibudgyo, Kakumiro, Kamuli, Kassanda, Kisoro, Kyegegwa, Mubende, Rakai, Wakiso, Yumbe, Kirumira, Lyantonde and Sembabule.
- ❖ Under the District Water and Sanitation Conditional Grant (DWSCG) to the District Local Governments (DLGs), **1,886** boreholes or hand pumped wells, **301** protected springs, **201** Rainwater Harvesting Tanks 10m³ and 14 valley tanks were constructed serving a total of **606,957 persons** excluding 21 valley tanks that are for animals watering. In summary, a total of **1,322** new point water sources were constructed and or drilled serving **431,075** persons.

iv) Installation of 2,060 environmentally friendly and sustainable solar powered boreholes to increase safe water coverage in the least served villages.

- ❖ Under the centrally managed projects, during the FY 2020/21, 40 Solar/ Wind Powered Water Supply Systems have been constructed to 80% completion with **187** public stands posts and **183** house connections currently serving **173,058** persons.
- ❖ With support from development partners, **100** mini solar powered pumping water systems for schools and health facilities with extension to nearby communities have been constructed in the districts of Adjumani, Arua, Kiryandongo, Moyo, Isingiro, Moroto, Napak, Amudat, Nakapipirit and Kotido serving **50,000** persons. A total of **223,058** persons were served.

v) Rehabilitation of old rural piped water supply schemes.

- ❖ A total of **3,877** existing point water sources have been rehabilitated across the country restoring water supply to **1,163,100** persons.
- ❖ With support from development partners, the Ministry of Water and Environment's efforts under the emergency Water, Sanitation and Hygiene rehabilitated **9** Gravity Flow Systems/ Solar Powered Systems restoring water supply to **27,600** persons.
- ❖ Also, **3** solar powered water systems in Isingiro, Adjumani and Kiryandongo were upgraded serving **28,000** persons. Through the rehabilitation, upgrading and expansion of piped water system, **104,368** persons were served.
- ❖ **48** boreholes were rehabilitated restoring water supply to **14,400** persons in the districts of **Obongi, Buliisa, Kasese, Kaabong, Nabilatuk, Moroto** and **Karenga**. In addition, **04** water supply systems were constructed and upgraded located at Kamwenge district (Kamwenge HCIII and Bigodi HCIII) and Kikuube district (Kyehoro HCIII and Muhwiju HCIII) serving **18,200** persons.

vi) Establishment of a supply chain for spare parts and outlets for borehole infrastructure

- ❖ There has been no progress in establishing a supply chain for spare parts and outlets for borehole infrastructure. This is because the potential actors namely Victoria Pumps and Engineering and Buyaya Technical Services closed shops as it was a requirement for them to comply with the PPDA. Instead of extending services closer to the communities, the actors operate on delivering the parts upon request from the communities.
- ❖ In order to address the supply chain spare parts problem, there has been **innovative Approaches with support from Japan International Cooperation Agency (JICA) to support the introduction of the automated “pay-per-fetch” mechanism at the boreholes referred to as SUNDA.** The system provides real-time data on functionality of water sources. The SUNDA system has been piloted in Kasanda, Mubende, Butambala and Gomba Districts.

vii) Promote rainwater harvesting by reducing the cost of acquiring necessary equipment such as water tanks.

- ❖ There has been an increase in the uptake of rainwater harvesting across the country from **20,187** in FY 2020/21 to **20,367** in FY 2021/22. This has been through the initiatives of the Ministry of promoting rainwater harvesting.

viii) Support continuous Community-Led Total Sanitation (CLTS) for improved sanitation and hygiene to prevent diseases.

- ❖ Under the Transitional Development Grant - Sanitation (Water & Environment), a total of **4,040** villages were worked in and of these 4,040 villages, **19.9%** (804) became open defecation free. Approximately a total of 241,200¹ persons gained access to household sanitation.

¹ The population that gained access to sanitation is computed based on the assumption that each village has a population of 300 persons.

2.2. URBAN WATER AND SEWERAGE SERVICES

2.2.1 Small Towns Water Supply and Sanitation

NRM is going to increase overall access to safe and affordable water supply in urban areas, currently standing at 72.1% with an ultimate aim of hitting the 100% coverage. The key interventions will include the following:

Hon Chair, the Manifesto Commitment was to Invest in construction of piped water supply in small towns and growth centres focusing to provide safe, reliable water supplies and improved sanitation facilities to all districts and sub-county headquarters.

The Ministry of Water and Environment in line with the Manifesto Commitment has so far done the following water supply systems

i) Completed Schemes:

Kyenjojo (Kyenjojo), Katooke (Kyenjojo), Nakasongola(Nakasongola), Alerek (Abim), Dokolo, Buyamba (Rakai), Kassanda (Mubende), Kangulumira-Nazigo (Kayunga), Kagadi, Odramacaku (Arua), Moyo (Moyo), Morulem (Abim), Namalu (Nakapiripirit), Padibe (Lamwo), Lwamata (Kiboga), Kambuga II, Kateete HC III, Bigando (Kasese)

ii) On-going construction of water supply systems

Busia (69%-Busia), Kayunga (98%-Kayunga), Busaana (98%-Kayunga), Kamuli (19%-Kamuli), Buikwe (52%-Buikwe), Kapchorwa (69%-Kapchorwa), Bundibugyo (85%-Bundibugyo), Yumbe (99%-Yumbe). Igorora II (6%-Ibanda), Binyiny (93%-Kween), Bibia/Elegu (90%-Amuru), Atiak (75%-Amuru), Lacekocot (70%-Pader), Kyankwanzi (96%-Kyankwanzi), Nalukonge/Lusozi (96%-Kyankwanzi), Butemba/Bukwiri (96%-Kyankwanzi), Nyakatonzi (98%-Kasese), Ngoma (12%-Nakaseke), Okokolo (40.7%-Maracha), Kati (22%-Madi-Okolo), Alucokoko (5%-), Accumut (15%), Kokum (35%), Ocapa (70%-Serere), Amus (45%), Bulangira (40%-Kibuku), Kaguru (90%-Buyende), Kalapata (30%-Kaabong), Kakingol (15%-Moroto), Rhino Camp (35%-Madi-Okolo), Keri-Oraba (33%-Koboko), Parabong (42%-Amuru), Zombo (5%-Zombo), Bukumi (5%-Mbale), Kanapa (1%-Katakwi), Apapai (98%), Odongai (95%-Karaki),

Bihanga (Kamwenge), Namasale (Site handover-Namasale), Kaliro (Site handover-Kaliro), Namungarwe (Site handover-Kamuli).

iii) **Water and Sanitation Sites under Procurement:** Contracts for the Sites of Butalejja, Busolwe, Budaka (Budaka), Kadama (Kibuku), Kibuku (Kibuku), Tirinyi (Kibuku) are under Procurement. Procurement Evaluation Report submitted to the World Bank for NO OBJECTION

iv) **Completed Designs for Water supply systems**

Igayaza-Kikwaya (Kakumiro), Lwengo (Lwengo), Bugadde-Idudi (Mayuge), Serere area(Serere), Soroti-Amuria-Orungo Corner (Amuria), Ngenge-Chapskunya-Kiriki (Kween), Bugweri and Bwondah (Mayuge), Kibbale (Rakai), Kifampa (Rakai), Bugadde (Mayuge), Kityerera (Mayuge), Busakira (Mayuge), Kuluuba (Mayuge), Kaabong(Kaabong), Kawalakol (Karenga), Kapedo (Karenga), Nabilatuk (Nabilatuku), Namalu (Nakapiripirit), Napak (Napaka), Karita (Amudat), Kapedo (Kaabong), Karenga (Karenga), Kabimbiri-Kasawo (Kayunga), Maddu (Gomba), Rakai (Rakai), Nsaro (Rakai), Rumbugu (Rakai), Birabago, Namayumba-Busunju (Wakiso/Mityana), Rubanda (Rubanda), Rukiga (Rukiga), Abim (Abim), Nyakwai (Kotido), Kangole, Nwoya (Nwoya), Lamwo (Lamwo), Amuru (Amuru), Alebtong (Aleptong), Kole (Kole), Omoro, Maracha, Lorengacora (Karenga). Lotome (Karenga). IriIri (Karenga).

v) **On-going Designs:**

Butaleja (Butalejja), Busolwe (Butalejja), Budaka (Budaka), Kadama (Kibuku), Tirinyi (Kibuku), Kibuku (Kibuku), Kyegegwa (Kyegegwa), Mpara (Kyegegwa), Ruyonza (Kyegegwa), Nadiket (Moroto), Nakapelimoru (Kotido), Kathile (Kaabong) and Loregai, Rwanda-Kooki (Rakai), Dwaniro (Rakai), Byakabanda(Rakai), Kamukala (Rakai), Ngomanene (Rakai), Kiriri (Rakai), Bukandula (Rakai), Rugaga (Rakai), Kabulasoke (Gomba), Butiti (Gomba), Kisozi (Gomba), Kajumiro (Gomba), Kanoni (Gomba), Ngando (Butambala), Bulo (Butambala), Nsabwe (Butambala), Nyamarebe-Rushango-Buremba (Ibanda), BurungiEngari-Nkungu-Rwemikona (Mbarara).

Hon. Chair, there was a commitment on Construction **of improved public sanitation facilities in public places and selected** institutions, including cluster faecal sludge management facilities in small towns and rural growth centres.

The Ministry has registered progress in this area as follows: -

- Completed construction of 29No. Public and institutional Sanitation Facilities in Kapchorwa, Kayunga, Busana, Nakasongola, Kyenjojo, Katooke.
- Construction of 11No. Institutional and Public Sanitation Facilities is on-going in Bundibugyo, Kamuli, Buikwe
- Completed Construction of Dzaipi Faecal Sludge Management Facilities (FSMF).
- Construction of 3No. FSMF are on-going in Koboko, Rukungiri, Yumbe
- Completed designing of 12No. FSMF for the small towns / Rural Growth Centres of Wobulenzi, Kigumba, Buikwe, Dokolo, Kyenjojo, Namutumba, Kira, Patong, Kyazanga, Kanungu, Moyo and Kapchorwa,

2.2.2 NATIONAL WATER AND SEWERAGE CORPORATION (LARGE TOWNS WATER SUPPLY AND SEWERAGE)

Within the context of NRM Manifesto 2021 - 2026, the Corporation's Commitments broadly entail the following:

- a) Improving urban water supply and sewerage coverage.
- b) All Cities, Towns, Trading Centers, Wards, Cells and zones to get clean safe water (at least one source per village).
- c) Extension of water and sewerage services to the planned industrial parks, and
- d) Implementation of Capital Development Projects to enhance water and sewerage service delivery.

The above commitments have been incorporated into the Corporation's planning and reporting framework, and various strategies were developed to ensure that they are accomplished.

Progress On Manifesto Commitments

a. All Cities, Towns, Trading Centers, Wards, Cells and zones to get clean safe water (at least one source per village).

The Corporation's geographical coverage has grown by **3%** from **258 towns** to **268 towns (an additional 10 towns)**. These towns are located in **94 districts** across the country, and constitute **11 cities, 257 towns** and **16,601 villages**. Currently, the village service coverage stands at **65%** (**10,799 villages** with at least one safe water point).

Table 1: NWSC Geographical Growth for the Period 2019/20 to 2022/23 (March 2023)

Indicator	2019/20	2020/21	2021/22	2022/23	Target 2026	% Achiev't	Growth from 2020
No. of Towns	258	258	263	268	283	95%	4%
No. of Districts	93	93	93	94	100	94%	1%
Villages under NWSC Jurisdiction	13,437	15,056	16,500	16,601	16,830	99%	24%
Villages Served	7,192	8,811	10,425	10,799	14,474	75%	50%
Villages Served (%)	54%	59%	63%	65%	86%	76%	22%

b. Improving Urban Water Supply and Sewerage Coverage

The Corporation's aspiration is to increase its water service coverage from **74%** to **86%** in 2026 and sewerage service coverage from **21%** to at least **30%**. Currently, the water service coverage stands at **78%** while sewerage service coverage at **23%**. This denotes an improvement of **four (4) percentage points** from **74%** to **78%**. This attributed to increased connectivity of **22%** mainly attributed to the expansion of the water network through the implementation of the SCAP 100 Project and other Capital Development Projects in various NWSC Operational Areas.

Table 2: NWSC Service Coverage for the FY 2019/20 – FY 2022/23 as of March 2023

Indicator	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	Target 2026	% Achiev't	Growth from 2020
Water Production (million Ltrs/day)	389	400	456	466	592	79%	20%
Total Water Pipe Network (Km)	19,974	20,495	21,794	22,668	27,513	82%	13%
Water Connections (No.)	724,006	775,794	840,508	898,186	1,208,477	74%	24%
Public Stand Posts (No.)	21,600	24,867	26,955	29,720	44,698	66%	38%
Water Service Coverage (%)	74%	75%	78%	78%	86%	91%	5%
Population Served (No.) ("000")	15,703	16,097	17,585	18,236	23,365	78%	16%
Total Sewer Pipe Network (Km)	693	715	751	770	889	87%	11%

Sewer Connections (No.)	23,914	25,180	28,007	28,718	29,557	97%	20%
Sewerage Service Coverage (%)	22%	23%	23%	23%	30%	77%	5%

c. Implementation of Capital Development Projects to enhance water and sewerage service delivery:

i. Completed Projects

- ❖ Completed the construction of the Katosi Water Treatment Plant, which increased daily water production by **160 million litres**, from **240 million litres** in 2020 to **400 million litres** in Kampala Metropolitan.
- ❖ Upgrading of Kapeeka Water Supply System, which enhanced daily water production from **2.5 million litres** to **5 million litres**. The Project has improved water supply services delivery in Kapeeka plus the neighbouring towns of Semuto, and Bukomero among others. In addition, 15 projects/industries have benefited from the upgrade of the production system in the Industrial park.
- ❖ Rehabilitation and expansion of the Sembabule Water Supply Project. The Plant is now able to produce **3 million litres** of water daily as opposed to the **300,000 litres** initially. Connected 450 new customers to the project line. New areas served because of the project include; Lugusuru, Kisozi, Kajjumirot trading centre and Nanseko
- ❖ Fort Portal Water Production Improvement Project was also completed. Current production capacity is **5 million litres** per day compared to **2.5 million litres initially**.
- ❖ Development of Parombo Water System to serve over 20,000 people in the Area following the Presidential Directive in 2018 for NWSC to extend water to Parambo town. Daily Water supply improved by **200,000 litres**.
- ❖ Water for Virungas Project – Kisoro aimed at improving water supply in the 17 villages around the Virunga ranges, to deter the locals from entering the Mgahinga National Park to compete with the Animals for water.
- ❖ Upgrading of the Kisoro – Nkanka Water Supply System from **3.1 million litres** daily to **5.8 million litres**.

- ❖ Jinja – Iganga Water Supply Improvement Project that improved daily water production by **6 million litres**. The system serves an additional 300,000 people in over 200 Villages in Jinja, Iganga, Mayuge, Kayunga and Buikwe.
- ❖ Upgrading of the Hoima Water Supply, which has improved water supply in Hoima City by an additional 3.5 million liters daily. The System will enhance water supply services in within Hoima City and the Areas of Kasengo district Headquarters, Kihukia Busisi, Budaka, Kiduma, Kalongo, and Kyesiga among others among others, which have been affected by intermittent water supply.
- ❖ Lyantonde Water Supply Project intended to enhance daily water production by **3 million liters daily**. This will improve water supply services in the Areas of Lyantonde, Rushere and Rushara Industrial Park.
- ❖ Nakivubo Waste-Water Treatment Plant with capacity of **45 million liters daily**. The system was completed and is undergoing performance monitoring. The Plant is to serve an additional 380,000 people in Kampala Metropolitan. The Plant is to serve an additional 380,000 people in Kampala. The Plant will also produce an average of 180kwh per day of electricity sufficient to meet 70% of the plant energy requirement.
- ❖ Kiruddu Waste Water Treatment Plant with a capacity of **300,000 liters daily** targeting Kiruddu Hospital and the surrounding community. The project is substantially completed and is under testing.

ii. On-going Capital Development Projects

- 1) **Kampala Water Lake Victoria Water and Sanitation Project – Phase 2 which entails:**
 - a) Extension of water supply and sanitation services in informal settlements (Package 5B) – Eight Public Toilets under construction, Access road works to the Nalukologo Faecal Sludge system completed, Piling works for the sedimentation tanks commenced and Excavation works for the anaerobic ponds completed, works are at 60%
 - b) Restructuring of the network in project areas of Kampala Metropolitan (Package 2B) - The Project is at final stages of detailed design.

- 2) **Integrated Program for Improving Living Conditions of People in Gulu**, which will draw water from River Nile at Karuma and transmit it for a distance of 80km to Gulu City.
- 3) **The Water and Sanitation Infrastructure Project for the Isingiro, Mbarara and Masaka Areas**. The Project will involve drawing water from River Kagera for production and domestic use in the mentioned towns (Intake) and rehabilitation of production and sanitation infrastructure in Mbarara and Masaka. The Project will serve additional 75,000 people.
- 4) **Wakiso West Water and Sanitation Project**, which entails construction of Water Treatment Plant and a Wastewater Treatment Plant at Kaazi in Busabala .
- 5) **The rehabilitation and expansion of the Mbale Water Supply Schemes under the Integrated Water Management Development Project (IWMDP); Adjumani Water Supply and Sanitation Project** - Technical Evaluation completed and the report submitted to World Bank for review and clearance.
- 6) **Upgrading of the Bushenyi Water Supply System** - Works for the water treatment units (aerator and clarifier) commenced; **Kyankwanzi Water Supply Project** - Commenced works on the water treatment plant site and laying of the raw water line.; **Soroti Water Supply Project** - Procurement process finalised, contract awarded to UpDeal Construction Ltd; **Tororo Water Supply Project** - Detail design and tender documentation ongoing; **Moroto Water Supply Project** - Detail design and tender documentation ongoing; **Lira Water Supply Improvement Project** - Tender advert issued; **Kalungu Water Supply Project** - Construction works have commenced (30% progress) and construction of the administrative block is at 90%; **Kanungu Water Supply** - Detailed design and tender documentation ongoing; **The Service Coverage Acceleration Project (SCAP 100) in all the 268 towns**. Since Project inception, we have laid 9,098 Km of new water mains, installed 332,167 new water connections including 19,735 new PSPs and covered 7,951 additional villages; **Water and sanitation projects for Jinja/Njeru and Iganga** - The Corporation is undertaking initial assessments with DANIDA for Jinja and Iganga. ; **Kyotera Water Works and Bulk Transfer to neighbouring towns** - The Corporation is sourcing for funds to implement the project.

d. Water and sewerage services for the planned industrial parks

❖ Water Supply System Development/Expansion Targeting Industrial Parks (number)

Uganda Investment Authority has established twelve (12) Industrial parks out of the twenty-three (23) Industrial and Business Parks and Four (4) Regional Science and Technology Industrial Parks.

NWSC has established water supply systems for **nine (9)** of the well-developed industrial parks and various businesses have been connected to the Water System. Nshaara, Karamoja, KabaroleMMP - Buikwe and Mbale Industrial and Business Parks are still under development and NWSC will continue working closely with UIA to ensure these parks are supplied with water.

Some of the key initiatives undertaken include:

- ❖ Expansion of the Water Pipe Network by **187.45 Km**.
- ❖ Implementation of Capital Projects and Water Supply Stabilization Plans (WSSPs) in various Areas to boost water supply including; Katosi Water Treatment Plant, Kapeeka Water Supply Project, FortPortal Water Production Improvement Project, Lyantonde Water supply Project and SCAP 100 among others.
- ❖ Other Projects underway include; the Integrated Water Management and Development Project – Mbale, Soroti water Supply project, Tororo Water Supply Project and Moroto Water Supply Project.

❖ Sewerage Services for the Industrial Parks

All the UIA Industrial Parks except Mbale Industrial Park fall outside the NWSC sewerage coverage area, and as such are not being served by NWSC. The waste water treatment facilities of NWSC are designed to receive municipal waste and therefore connection of industrial waste cannot be done. The respective industries are required to carry out wastewater pre-treatment.

2.3. WATER FOR PRODUCTION

Water for Production Department contributes to Three (03) main outcome indicators of;

- i. Cumulative water for production storage capacity (Million cubic meters)
- ii. Area under formal irrigation (ha)
- iii. Percentage of water for production facilities that are functional

- ❖ The irrigation area has increased from **19,138ha** to **22,797ha** against the irrigation potential estimated at **3.03 Million Hectares** country wide.
- ❖ While the overall current cumulative water storage for Water for Production has increased from **42.025 Million Cubic Meters** to **52.48 Million Cubic Meters (MCM)**.
- ❖ Functionality for Water for Production facilities stands at **88%**.

The performance of the three (03) indicators is expected to further improve upon completion of the construction of the ongoing Water for Production facilities (Valley Tanks, Earth Dams and Irrigation Schemes) at the end of the Financial Year 2022/23.

A. NRM is going to establish new bulk water systems Supply for multipurpose use for dams, water abstraction, transmission and distribution to industrial zones and other points of use across the country. New storage facilities are going to be constructed in the following areas:

- i) **Kyenshama Dam in Mbarara District.** Construction of Kyenshama earth dam in Mbarara District is at 75% physical progress (Construction of the reinforced concrete reservoirs and platform/anchor and fabrication for the floating intake are in advanced stages).
- ii) **Geregere Dam in Agago District.** Detailed engineering design for Geregere earth dam in Agago district completed. Procurement for works for construction is on-going.
- iii) **Kyahi Dam in Gomba District.** Preparation of engineering design for Kyahi earth dam in Gomba district halted due to resistance from the community.
- iv) **Lemsui Dam in Nakapiripirit and Amudat Districts.** Preparation of design is on-going. Works for construction are intended to commence in the 2024.

- v) **Nakonyeni Dam in Moroto District.** Nakonyen dam constructed by Ministry of Agriculture, Animal Industry and Fisheries to 30% completion in the coming financial year (2023/24).
- vi) **Nangolo-apolon Dam in Kotido District.** Preparation of design is on-going. Works for construction are intended to commence in the year 2024.
- vii) **(Ojama Dam in Serere District.** Detailed engineering design for Ojama earth dam in Serere district is completed,
- viii) **Construction of nine communal valley tanks in Kotido, Moroto, Amudat and Nakapiripirit districts.**

The Ministry has completed the construction of Seven (07) communal Valley Tanks of Karengese in Nakapiripirit District, Napeikar, Loteteleit, Kalopedomuge and Lokipworanaron in Kotido District, Auskuyon and Katotin in Amudat District. This has created a total water storage of 140 Million Litres for Livestock watering. In addition to the above, the Ministry has also completed the construction of 09 (Nine) communal Valley Tanks of Nadwaramukuny, Lochurut and Longoromit in Kaabong District, Longorikipii and Arengetekat in Nabilatuk District, Omagal in Abim District, Itanya-Kanyikwar-Loyoro, Lokoripii and Tapwa in Karenga District in Karamoja Sub-region. This has created a total water storage of 180 Million Litres for Livestock watering.

B. NRM is going to construct 500 private valley tanks and 120 communal valley tanks for livestock watering in the cattle corridor districts with affirmative action offered to particular areas.

- ❖ Completed construction of Seventy-Eight (78) private Valley Tanks on individual farms to date using the Water for production equipment in the Districts of Isingiro, Ntungamo, Sembabule, Nakasongola, Nakaseke, Gomba, Bukomansimbi, Ibanda, Kiruhura, Lyantonde and Mbarara.
- ❖ Construction of more Valley Tanks on Individual farms awaits demand from farmers and repair of the existing Ministry construction equipment.
- ❖ Completed construction of Twenty-Six (26) Communal Valley Tanks for livestock watering in the districts of Mbale, Tororo, Mbarara, Kiryandongo, Nwoya, Kibaale, Kiruhura, Isingiro and Sembabule.

- ❖ Construction on going for Nine (09) Communal Valley Tanks in the Districts of Ntungamo, Ntoroko, Kyotera, Kamwenge, Kyotera, Pader, Omoro, Kibaale, Gomba

C. In addition, we are going to establish new small, medium and large-scale irrigation schemes to exploit the existing potential for sustainable agricultural production and productivity. The Ministry is going to construct more irrigation schemes in the following areas:

Kabuyanda in Isingiro District, Matanda in Kanungu Amagoro and Angololo in Tororo District Namatala in Mbale, Budaka and Butaleja Districts; Namalu in Nakapiripirit District; Unyama in Gulu and Amuru Districts' Sipi in Bulambuli District, Enengo in Rukungiri and Kanungu Districts. Imvempi in Arua District. Purongo in Amuru District. Lopei in Napak District and Palyec in Nwoya District.

ADDITIONAL INTERVENTIONS

a) Medium Scale Irrigation Schemes

- ❖ Completed construction of Six (06) medium scale Irrigation Schemes of Doho II, Mubuku II, Tochi, Ngenge, Rwengaaaju and Olweny in the Districts of Butaleja, Kasese, Oyam, Kween, Kabarole and Lira respectively. This has increased area under formal irrigation by 3,976 Hectares benefiting 5,328 farmers. The main enterprises are rice and horticulture (onions, green pepper, tomatoes, watermelons and cabbages).
- ❖ Works are in advance stages of completion for construction of Wadelai (1,000 Ha) irrigation scheme in Pakwach District in Northern Uganda.
- ❖ Additionally, works also commenced for construction of Two (02) irrigation schemes in the Districts of Bududa (Namaitso) and Luweero (Kawumu). These will increase on crop production after completion.

b) Solar Powered Irrigation Demonstration sites

- ❖ Thirty-Five (37) Solar Powered Irrigation Demonstration sites were constructed in the Districts of Buhweju (1), Isingiro (1), Kiruhura (1), Kyenjojo (1), Mbarara (1), Ntungamo (2), Rukungiri (2), Rwampara (1), Rubirizi (1), Mbale (1), Kapchorwa (1), Namayingo (1), Tororo (1), Soroti (1), Sironko (1), Serere (1), Katakwi (1), Karenga (1), Abim (1), Kasanda (1), Kibaale (1), Kasanda (1), Buvuma (1), Lwengo (2), Kyankwanzi (1), Kiryandongo (1), Kayunga (2), Lyantonde (1), Omoro (1), Dokolo (1), Oyam (1), Zombo (1) and Nwoya (1).
- ❖ Construction of Twenty-Two (22) Solar Powered Irrigation Demonstration sites is ongoing at various stages of progress in the Districts of Mayuge (1), Bududa (1), Kalangala (1), Nakaseke (1), Hoima (1), Oyam (1), Nwoya (2), Omoro (1), Agago (2), Kole (1), Apac (1), Omoro (2), Oyam (1), Zombo (1), Gulu (1), Kotido (1), Amudat (1), Bududa (1) and Adjumani (1).

OTHER UNDERTAKINGS NOT CAPTURED IN THE NRM MANIFESTO.

- ❖ Sited and drilled Eight (08) production wells in the districts of Gulu, Luwero, Nakasongola, Nwoya, Arua and Amuru.
- ❖ Works for construction of Nakayoza livestock watering facility in Nakasongola District is at 80% cumulative progress.
- ❖ Construction of livestock watering troughs for Puno and Akadukulo Valley Tanks in Abim District is at 65% cumulative progress.
- ❖ MWE is undertaking complementary feasibility studies and detailed designs to facilitate project readiness for Nakasongola Bulk Water Transfer Supply System and Nsongezi irrigation scheme in Isingiro District.
- ❖ Feasibility studies and detailed designs are being undertaken for the following irrigation schemes; Rwimi (2,000 ha) in Bunyangabu and Kasese Districts, Nsonge (1,800 ha) in Bunyangabu District, Mpanga (1,500 ha) in Kyenjojo District and Nyamugasani (1,750 ha) in Kasese District.

- ❖ Formulation of a National Irrigation Masterplan for Uganda is at 30% progress (Draft Interim Study Report One was submitted and approved)
- ❖ One (01) Set of Earth moving equipment unit supplied and delivered.
- ❖ Feasibility study and design of Mega Irrigation Scheme of Central Low lands and the south western highlands is on-going (at 40% progress).
- ❖ Design of Water Supply and Irrigation Systems and construction of Fifty-Five (55) sites (Water Supply and/or Irrigation) across the country is still on going under the Nexus Green Project.

2.4. WATER RESOURCES MANAGEMENT

2.4.1 Water Research and Innovations

The Ministry through the Directorate of Water Resources Management is implementing the following interventions in line with the Manifesto commitments-

a). Ensure safety of the HEP dams from all possible dangers like flooding, moving islands and weeds.

- ❖ 5 major hydropower infrastructure (Nalubaale, Kiira, Bujagali, Isimba and Karuma) have been inspected to ensure safe operations and functionality of the spill way components,
- ❖ 20 mini hydropower plants have been inspected to ensure that the minimum environmental flows have been adhered to.
- ❖ 10 hydraulic structures including bridges have had their designs reviewed to check their capacity to discharge the peak floods in view of the flood analysis arising the climate change.

b). Maintenance of water bodies, including dredging/desilting, cleaning and management of water weeds.

- ❖ Dredging of River Nyamwamba is on-going. Construction works are at 95.4% level of completion i.e Earthworks (River Maintenance/Desilting) and reinstatement/ reinforcement of river banks (Hauling and filling embankments with excavated rock) are at 97%. Protection of vulnerable/weak river sections (Cyclopean Concrete, Gabions and Mattress Ancillaries-geotextile) are at 98%.

c). Demarcate and stabilise boundaries and buffer zones of water bodies, including popularizing the new boundaries to neighboring communities.

- ❖ 76.7 km of degraded river and Lake banks were demarcated and planted with pillars in Kahunge and Nkoma sub-counties in Mpanga catchment (30km), L. wamala 42km and 4.34km of River Nabakazi, 25km of River Nyamwamba.

- ❖ 250.2km of Rivers Siti-Greek, Tabagon-Chepyakamiet, Kere, Adungo, Olupe Opong, Karakilet – Lokokwayi & Kadukuye, Kiruruma, Nangaro-Kiruruma, Rufuha have been demarcated with pillars and live marker.
- d). Manage the surrounding landscapes and buffer zones to reduce erosion and flow of sediments into water bodies.
- ❖ 800ha of Soil and Water Conservation measures implemented in Nyamwamba, Maziba, Awoja and Aswa catchments.
 - ❖ 1,428,772 trees seedlings have been distributed and planted as improvement to the basin vegetation cover. These include; Mohogany, Mvule, Maesopsis Emiini, Grevillea Robusta coffee, Bathdavia, Tarminalia, Prunus Africana, Promus, Jackfruit, Guavas and Avocado species in Nyamwamba, Maziba, Awoja and Aswa catchments.
- e. Prioritise catchment protection activities upstream of the water retention structures to ensure their sustainability.**
- ❖ 14 tree nurseries have been established under public private partnership with a production capacity of 1,530,580 tree seedlings.
 - ❖ 438 water harvesting and flood control structures have been constructed in the catchments. These include 31 percolation pits, check dams, infiltration tips, ponds, retention channels, terraces etc in Nyamwamba, Lhakwahkwa, Lokok, Aswa II, Middle/lower Awoja Maziba, Awoja and Aswa catchments.

2.5. ENVIRONMENT AND NATURAL RESOURCES

NRM manifesto pledged on protection, restoration, and demarcation of critical ecosystems in wetlands and forest reserves across the country the country in order to build a sustainable green economy. The target is to increase the national forest cover from 12.4% to 15% and increase wetlands cover from 8.9% to 11.5% by 2026.

The following were the areas of focus under the Manifesto commitments.

a) Intensify tree planting on individual and commercial farms, fragile ecosystems such as rivers banks and lake shores, Government and non-governmental institutions' premises/land, roads reserves, along railways and pipelines, corridors, wildlife conservation areas, green parks in urban areas, forest reserves, private forests, communal land, homesteads and other publicly owned infrastructure

- ❖ The Ministry developed a number of initiatives as part of the government campaign to plant and grow up to 40 million trees under the Running Out of Trees-ROOTS campaign. A number of partners were mobilized under the ROOTs campaign including churches, schools, corporate companies, and traditional and cultural institutions.
- ❖ A total of 26,394,856 assorted tree seedlings were planted. Sixty-six districts reported planting trees under different initiatives.
- ❖ In line with the manifesto's objective of intensifying tree planting on individual and commercial farms, a total of **20,923,390** assorted tree seedlings have been distributed so far to individual farmers, community groups and institutions like schools, churches, kingdoms
- ❖ Local communities have been supported to establish small woodlot plantations for production of saw logs and wood energy in rural areas. Twelve community groups have been supported with a total of **85,000** assorted tree seedlings groups resulting in establishment of approximately 76.51 ha of woodlots for the purpose of producing fuel wood.
- ❖ **Increase investment in value addition to environment and natural resources products and services;** The IFPA-CD project has initiated plans to set up a state of the art wood processing hub at Nyabyeya

Forestry College for purposes of capacity building, as well as support efficient wood processing hubs in different parts of the country through a grant scheme. It is expected that this hub shall commence operations during the FY 2024/25,

❖ **Demarcate all wetlands, river banks and lake shores with pillars and gazette them with an estimated boundary length of 50,000km out of the total 144,316km boundary country wide.**

- ❖ A total of 1,452.4Km of wetlands were demarcated with pillars and live markers across the country.
- ❖ The wetland management plans for Lake Nakuwa Ramsar site in Pallisa, Kaliro and Kamuli, covering 3,800 hectares were reviewed.
- ❖ Fish ponds were established and stocked with 35,000 fish fingerings at each site in Ntungamo, Kabale, Oyam, Nakaseke, Pallisa, Ngora, Sheema, Bushenyi, and Mitooma. This was completed with 245,000 fingerings and 32 tonnes of fish feeds provided in total for all sites.
- ❖ 67 enterprise-based groups with 1,571 farmers were trained on crop diversification and resilient agricultural practices in Kabale, Kisoro, Namutumba, Rukungiri, and Rubirizi districts.

2.6. NATIONAL FORESTRY AUTHORITY

- a) **Seedlings produced:** Raised 51,456,098 (64.3%) seedlings out of the planned two-year target of 80,000,000.
- b) **New plantations established:** NFA established 1,082Ha (54.1%) out of the planned 2,000ha in eight (8) plantation areas of Mwenge, South Busoga, Lendu, Mbarara, Mafuga, Katugo, Usi and Opit.
- c) **Forest restoration:** Restored 14,131Ha (59%) out of planned two-year target of 20,000Ha, in Lakeshores, Kyoga, Southwest, Muzizi and West Nile Ranges
- d) **Boundaries opened and marked with concrete pillars:** 1,122.38Km (56%) out of the planned 2,000Km of Central Forest Reserve boundaries were reopened and marked with concrete pillars across the 14 Range and Plantation areas

2.7. UGANDA NATIONAL METEOROLOGICAL AUTHORITY

a). Manifesto commitment: The Manifesto focuses on improvement of climate data and information to accurately inform efforts that address vulnerability to improve prediction and readiness to dealing with the adverse effects of climate variability and change. In particular, we are going to Revamp and equip existing weather stations as well as establish new ones in the newly created districts and Invest in developing climate ICT, including but not limited to high performance computing, data analytical tools, and networks.

UNMA has registered progress in the following areas in line with the above Manifesto Commitments

- ❖ Produced three (03) Seasonal Rainfall Outlooks (SOND, MAM and JJA) annually to guide weather and climate users in decision making based on forecasts
- ❖ Developed a Weather Information Dissemination System in partnership with College of Computing, Makerere University to support dissemination of Early Warning Information. UNMA acquired a USSD code (*201#) from Uganda Communication Commission (UCC) that can be used by stakeholders to access climate information
- ❖ Provided early warning information on weather and climate at different timescales: Six hourly, daily, 10 days, and monthly weather updates, as well as marine weather information (12 hourly) and aeronautical meteorological information.
- ❖ Daily forecasts disseminated to 3 media houses of UBC TV, Star TV, Bukedde 1 T.V after the newscasts in Luganda, Swahili and English
- ❖ 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 stations of NBS, Family Tv, NTV and UBC TV to disseminate the issued seasonal forecast and generate feedback on utilisation of meteorological forecasts.
- ❖ Operated and maintained 58 Automatic Weather Stations, 38 Manual Weather stations and 80 Rainfall stations to transmit data from the field station to the headquarters.

- ❖ Installed 1 Automatic Weather Station at Soroti University, 1 Automatic Weather Station at Lake Mburo, and 1 Automatic Weather Station at Kabaale Airport in Hoima.
- ❖ Installed 9 weather buoys with 6 installed on Lake Victoria, 2 on Lake Albert and 1 on Lake Kyoga.

CHALLENGES

- a) Degraded water catchments that affect the availability of adequate and good quality water.
- b) Low funding that does not match the growing water demands and water use patterns.
- c) High annual population growth rate.
- d) Dilapidated and ageing infrastructure that requires high operation and maintenance costs.
- e) **High rate of deforestation on private lands and CFR encroachment:** The high rate of deforestation on private lands (0.8 % per year across the country).
- f) **Forest encroachment** remains one of the most adverse risks for forest investments, development and management. Some Private Tree Farmers had running battles with local communities and land grabbers for example in Bajjo, Iziru, Kandanda-Ngobya and Nsowe.
- g) **Issuance of illegal land titles in CFRs** by Uganda Land Commission and District Land Boards continues to create a lot of litigation and related costs to NFA.
- h) **Inadequate forest management infrastructure and equipment** for example forest roads, forest management stations are still a challenge and continue to limit effective and efficient forest management in all central forest reserves.
- i) **Unreliable Weather Patterns and wild fires:** Due to the effects of climate change, unreliable weather patterns make it difficult to plan for normal rain season tree planting and this made it more expensive in

terms of replacement of dead trees and protection of other wooded lands from fires.

RECOMMENDATION

- i). Institutional strengthening, environment protection and catchment management. Linkages and coordination with other MDAs such as, NEMA, MoLHUD, MoLG, UPF, UPDF, LG to address the issue of environmental degradation
- ii). Improve law enforcement and awareness: Improve forest law enforcement and governance through professional investigation and prosecution of environmental and forestry crimes. Furthermore, increase public engagements and awareness on dangers of deforestation, climate disasters and opportunities for environmental restoration.
- iii). **Open and mark CFRs boundaries:** Open and mark all CFR boundaries with concrete pillars, and digitize and share the shape files of CFRs with Ministry of Lands Housing and Urban Development upload on the land management information system.
- iv). Promote partnerships: NFA will proactively continue to develop partnerships with various stakeholders (Security and Law Encroachment Agencies, District Local Governments, Development Partners and Corporate Organizations) to address the high deforestation rate and improve forest conservation, livelihoods. This will be done through Collaborative Forest Management, Corporate tree planting through MoUs, game ranching and others).
- v). **Manage wildfires:** NFA will innovate and adopt low cost fire management strategies like timely forest plantation tending and maintenance, early

burning, and working closely with private tree farmers and forest adjacent communities to manage fire during dry seasons.

- vi. Invest in new fleet and build and renovate buildings:** In order to improve efficiency, NFA needs to make distinct investment in capital assets of fleet, regional management offices and accommodation for regional staff.
- vii. Strengthening forest law enforcement and governance** through establishment of 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 and others).