



# **WATER AND ENVIRONMENT SECTOR**

## **SEMI-ANNUAL BUDGET MONITORING REPORT**

**FINANCIAL YEAR 2020/21**

**APRIL 2021**

Ministry of Finance, Planning and Economic Development  
P.O. Box 8147, Kampala  
[www.finance.go.ug](http://www.finance.go.ug)

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## ABBREVIATIONS

ADB	African Development Bank
AfDB	African Development Bank
AIA	Appropriation in Aid
AMCEN	African Ministerial Conference on the Environment
AMCOMET	African Ministerial Conference on Meteorology
ATC	Appropriate Technology Center
AWS	Automatic Weather Station
BPT	Break Pressure Tank
CBD	Convention on Biological Diversity
CBOs	Community Based Organisations
CDM	Clean Development Mechanisms
CFM	Collaborative Forest Management
CFR	Central Forest Reserve
CMP	Catchment Management Plan
COVID 19	Corona Virus Disease of 2019
CSOs	Civil Society Organizations
DLGs	District Local Governments
DWOs	District Water Office / Officers
EAC	East African Community
EFP	Environment Protection Force / Environmental Police Force
EIA	Environmental Impact Assessment
ENR	Environment and Natural Resources
ESIAs	Environmental and Social Impact Assessments
FAO	Food and Agricultural Organization
FIEFOC	Farm Income Enhancement and Forestry Conservation
FSM	Fecal Sludge Management



FY	Financial Year
GEF	Global Environment Facility
GFS	Gravity Flow Scheme
GIS	Geographical Information System
GKMA	Greater Kampala Metropolitan Area
GMOs	Genetically Modified Organisms
GoU	Government of Uganda
Ha	hectares
HIV/AIDS	Human Immune Virus / Acquired Immune Deficiency Syndrome
ICAO	International Civil Aviation Organisation
ICT	Information Communications Technologies
IEC	Information, Education and Communication
IFMS	Integrated Financial Management System
IGAD	Intergovernmental Authority for Development
IPC	Interim Payment Certificate
ISO	International Organisation for Standardization
KCCA	Kampala Capital City Authority
Km	Kilo Meter
LAN	Local Area Network
LGs	Local Governments
M&E	Monitoring and Evaluation
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MCM	Million Cubic Meters
MDAs	Ministries Departments and Agencies
MDGs	Millennium Development Goals
MFPED	Ministry of Finance, Planning and Economic Development
MoH	Ministry of Health
MoLHUD	Ministry of Lands, Housing and Urban Development
MOU	Memorandum of Understanding
MTEF	Medium Term Expenditure Framework





MWE	Ministry of Water and Environment
NBSAP	National Biodiversity Strategy Action Plan
NDF	Nordic Development Fund
NDP II	Second National Development Plan
NDP2	Second National Development Plan
NEF	National Environment Fund
NEMA	National Environment Management Authority
NFA	National Forestry Authority
NGOs	Non-Government Organizations
NMTS	National Meteorological Training School
NOSCP	National Oil Spill Contingency Plan
NSSF	National Social Security Fund
NTSC	National Tree Seed Center
NWSC	National Water and Sewerage Corporation
NWWTP	Nakivubo Waste Water Treatment Plant
O&M	Operation and Maintenance
PAPs	Project Affected Persons
PSP	Public Stand Post
PWDs	Persons with Disabilities
Q2	Quarter Two
RGCs	Rural Growth Centers
RWSS	Rural Water Supply and Sanitation
SCAP	Water Services Acceleration Project
SDG	Sustainable Development Goal
SDP	Sector Development Plan
SOPs	Standard Operating Procedures
SRWSSP	Support to Rural Water Supply and Sanitation Programme
STs	Small Towns
SWC	South Western Cluster
TC	Town Council



TSU	Technical Support Units
TV	Television
UBC TV	Uganda Broadcasting Corporation Television
UBOS	Uganda Bureau of Statistics
Ug Shs	Uganda Shillings
UNEA	United Nations Environment Assembly
UNFCCC	United Nations Framework Convention on Climate Change
UNMA	Uganda National Meteorological Authority
UNRA	Uganda National Roads Authority
URA	Uganda Revenue Authority
USD	United States Dollars
VAT	Value Added Tax
VTs	Valley Tanks
WASH	Water Sanitation and Hygiene
WES	Water and Environment Sector
WfP	Water for Production
WfPRC-N	Water for Production Regional Centre North
WfPRC-W	Water for Production Regional Centre West
WMO	World Meteorological Organisation
WQ	Water Quality
WSDF	Water and Sanitation Development Facility
WSDF SWB	Water and Sanitation Facility South Western Branch
WSDF-C	Water and Sanitation Development Facility Central
WSDF-E	Water Supply Development Facility East
WSS	Water Supply System
WTP	Water Treatment Plant



## FOREWORD

This Financial Year 2020/21 marks the first year of implementation of the third National Development Plan (NDPIII), within which we aim to achieve inclusive growth, employment and wealth resulting from sustainable industrialisation. It is hoped that the newly adopted coordinated programmatic approach will be a springboard to enabling government achieve its development objectives.

The semi-annual findings by the Budget Monitoring and Accountability Unit (BMAU) show that sectors still posted a fair performance. Whereas the Ministries, Departments, Agencies (MDAs), and Local Governments (LGs) should have adopted Programme Based Budgeting (PBB) this Financial Year, this is yet to be fully embraced as evidenced from the BMAU findings where entities are still operating and reporting achievements in sector format.

It is imperative that the lead agencies under all programmes ensure that all their constituent entities shift to the new development approach for us to harness its collective gains.

**Patrick Ocailap**

Ag. Permanent Secretary/Secretary to the Treasury



# EXECUTIVE SUMMARY

## Introduction

This report presents findings of an assessment conducted on selected key Votes within the Water and Environment Sector (WES) based on approved plans and significance of budget allocations to the votes, programmes and sub-programmes between 1<sup>st</sup> July and 31<sup>st</sup> December 2020. Emphasis was placed on programmes with large development expenditures. This was mainly considered with the view that they have a greater impact on the output/outcome sector targets.

Sub-programmes selected for monitoring were again based on regional representation, level of capital investment, planned annual outputs, amount of money released and government commitments in the Financial Year (FY) 2020/21. The methodology adopted for monitoring included literature review of semi-annual progress and specific project performance reports (monthly review reports); interviews with the respective responsible project officers or representatives both at central and regional government levels; the users/beneficiaries of the project and on site observations/verification of reported outputs in the field.

## Financial Performance

The sector budget allocation for the FY2020/21 is Ug shs 1,721.44 billion (tax arrears exclusive). The total sector releases were Ug shs 495.63 billion (28%) of the budget which was a fair release. Good expenditures were experienced by the Ministry of Water and Environment (MWE), National Environment Management Authority (NEMA), National Forestry Authority (NFA), and Uganda National Meteorological Authority (UNMA). Much as the District Local Governments (DLGs) and Kampala Capital City Authority (KCCA) got good releases, their expenditure performance could not easily be obtained.

## Overall Performance

The WES overall performance was good at 79%, with majority of the programmes exhibiting good performance. The NEMA scored 87.6%; NFA - 84.7%; Natural Resources Management (78%); Rural Water Supply and Sanitation at 76.4% and UNMA at 73.6%. Fair performance was noted in Water for Production at 56%.

## Highlights of Sector Performance

### Rural Water Supply and Sanitation Programme

The overall programme performance by half year was good at 76.4%. Several water supply schemes and point water sources (boreholes) were under construction. By end of quarter two, progress of piped systems was at: Lukalu-Kabasanda in Butambala District - 85%. The contractor delayed to finish due to additional works on the extended service area. The Kahama Gravity Flow Scheme in Ntungamo District was at 72% completion. The highway sanitation facility in Kiruhura District was constructed to 80% completion. The facility comprises of a toilet, attendant's house, lockups, restaurants, kitchen area and pharmacy. The location was changed because the first piece of land was overpriced.

Overall progress of the solar powered mini piped schemes was 60% and on schedule. A total of 18 out of 20 sites were handed over to the contractors under Lot 1 and general civil works completed in all except



Kamuli and Mityana which had faulty wells. A total of 201-point water sources were drilled across the country (145 hand pumped wells and 56 production wells) and 341 boreholes were rehabilitated. This was more than what was planned due to efforts by the ministry to provide more water to communities during the COVID-19 pandemic.

### **Urban Water Supply and Sanitation Programme**

The Programme performance was very good at 99%. The Nakivubo Waste Water Treatment plant was at 99% completion, and was under the defects liability period. The Bugolobi sewer works were at 99% completion. The waste water is fully operational but the sludge for gas generation remained with internal pipe works, testing and commissioning. There were work delays resulting in claims by the contractor of about 5m Euros and accruing accumulated interest of three percent per month that elapses.

Katosi Reservoirs at Nsumba Hill (with four reservoir tanks of 10million liters each) in Mukono District was at 95% completion. Katosi Drinking Water Treatment Plant (WTP) was at 95% with all civil and mechanical works complete; electro mechanical works were ongoing. Katosi transmission mains which include the pipeline, Namugongo booster station and Sonde reservoir was at 89%. Reservoir testing was ongoing remaining with laying of 80m pipes, pressure testing, pump testing, flushing and commissioning.

The upgrade of Kapeeka water works in Nakaseke District was at 75% overall completion. The plant was at 80% and works at intake were just commencing. This was to supplement the old system due to increased demand in the Kapeeka Industrial Park. An additional line of 9.8Km was laid to reduce the demand pressure as an immediate intervention where installation of pumps and a new 5m<sup>3</sup> reservoir was constructed. Under the midterm, intervention modifying the intake and another treatment line will be established.

Kakunyu-Kiyindi WSS in Buikwe District was at 90% completion. Pump testing was ongoing but intermittent power supply affected the flow of water to the reservoir tank causing shortages in the taps and market toilet which was already operating. Kikandwa in Kassanda District was at 98% and under pump testing. Kakunyu-Kiyindi and Kikandwa systems installed on line dosing equipment (Klorman unit installed for disinfection). Kasambya in Mubende District was at 90% and serves both Kalwana and Kasambya Town Councils. Padibe Water Supply System in Lamwo District was at 65% completion. Connections to consumers awaited a verification exercise. The slow uptake of the project was due to the former war torn community being used to free services.

Kashaka-Bubare (II) in Mbarara District was 100% complete and handed over to National Water and Sewerage Corporation (NWSC) for management. The system was a Phase II of Kahama Piped System and made only 25 connections which had remained under Phase I. Lwemiyaga WSS in Sembabule District was at 86% completion. All civil and mechanical works were complete and remained with electrical and test pumping. Two five-stance sanitation facilities were provided to two schools. The progress of Water Development Facility-SW office block extension was slow at 20% completion due to low cash inflow.

### **Water for Production**

The programme performance by 31<sup>st</sup> December 2020 was fair at 56%. Some outputs were still under procurement for example construction of Kyenshama and Rushozi earth dams in Mbarara District did not commence as planned. Completion of Nakayonza WFP Facility in Nakasongola District awaited clearance from the Solicitor General. Rwengaju Irrigation Scheme in Kabarole District was substantially complete. Works for construction of 23 small scale irrigation schemes in the South-Western districts were at different



completion levels. Construction of four valley tanks in the districts of Kibaale, Kiruhura, Isingiro and Sembabule was at 80% completion.

Mabira and Ntungamo Small Scale Irrigations (SSIs) were at 95% completion. Farmers were using the water for crops and animals in Mabira and Rwengaju. Sustainable Water for Production Management Systems (farmer field schools), agronomic support in best practices and agribusiness capacity development was ongoing. A private operator was contracted for one year to take care of the operation and maintenance of the Rwengaju system before establishment of a sustainable management system.

### **Natural Resources Management**

Programme performance was good at 78%. The Mobuku II Irrigation Scheme in Kasese District and Tochi in Oyam District were substantially complete. Concrete walls were being constructed around the gate valves in Tochi to avoid vandalism. A private operator was contracted for one year to oversee operation and security of the scheme. Establishment of the sustainable management structures and agronomic trainings for the beneficiary farmers were ongoing. About 279Km of critical wetlands boundaries were demarcated in various districts including Masaka, Mityana and Ntungamo and 2,560,366 seedlings supplied to both farmers and individuals. Under Building Resilient Communities, Wetland Ecosystems 1(one) Gender community management plan was developed for Rufuha wetland in Ntungamo District.

### **Uganda National Meteorological Authority (UNMA)**

The performance of the National Meteorological Services programme was good at 73.7%. Weather equipment functionality was maintained (50 rain gauges, five DAVIS Community Automatic Weather Stations, 60 ADCON AWS and 30 manual weather stations). Climate change and vulnerability mapping to study the effects of climate change on persons with disability among others was done; Daily forecasts were disseminated to three media houses of UBC TV, Star TV and Bukedde TV 1 after the newscasts in Luganda, Swahili and English. Two seasonal forecasts from July-December were issued; Regional talk shows conducted and mapping of stakeholders was carried out in different places for seasonal rainfall performance evaluations of the issued seasonal forecasts. The UNMA Terminal Aerodrome Forecasts were issued for Entebbe and Soroti (552); 30 SIGMETS issued for Entebbe and 1,683 Flights issued for Entebbe. The number of Terminal Aerodrome Forecasts and Flight Folders issued lowered due to the COVID-19 outbreak which affected the demand.

The procurement for purchase of 100 Manual Rain gauges, 35 Digital Evaporation Pans, 300 Measuring cylinders was pending delivery. Supply of 20 Automatic Weather Stations awaited shipment of equipment. The UNMA continued the process of securing land for its facilities in Mbarara and Gulu districts.

### **National Environment Management Authority**

The performance of the Environment Management Programme was good at 87.6%. Support was provided to 20 districts on the integration of Environment and Natural Resources (ENR) into their plans and budgets. At least 24 court cases related to issues of environmental degradation were handled. The NEMA monitored noise and air pollution and issued out 18 licenses out of 82 applications received on wetland degradation and enforcement of restoration orders among others. Review of 729 Environment Impact and Social Assessment (EISA) reports, 759 environmental audit reports, and license applications was done.

The NEMA developed and produced information, education and communication (IEC) materials including a newsletter, and calendar. The NEMA website was maintained; resource centers at the districts assessed



and stocked with Environment Impact Assessment (EIA) 759 reports for review.

### **National Forestry Authority**

The NFA performance was good at 84.7%. A total of 5,349ha of land in central forest reserves was freed from encroachers and 405ha were regenerating. About 169km of forest boundaries were surveyed and marked with pillars countrywide. Agreements with community based organisations were reviewed for community forest management. A total of 8,071ha of plantations were weeded.

A total of 3,109,582 out of over 16million assorted seedlings were produced and supplied from over 18 nurseries countrywide. Few seedlings were supplied due to budget cuts and low quarterly releases. The 14,191kg assorted seeds were collected, processed and supplied from Namanve Tree Seed Centre. A total number of 349 staff was deployed in 13 management areas countrywide. The 25 expired staff contracts were renewed and staff statutory obligations for the half year period fulfilled. Licenses for Enterprise Anti-Virus software and Enterprise Anti-spam software for protection of information assets and email or communication security respectively were procured. Desks and printers were procured for the Lendu audit and procurement office.

### **Key sector challenges**

- By end of Q2, there was a general low budget release against the approved budget for the votes: NEMA-35.6%, NFA-34.4%, UNMA-31%. This impacted the coverage and quantities of activities executed thus affecting final outputs. The Government of Uganda counterpart does not usually come by easily.
- Political interference especially in the ENR Sub-sector continues to hinder lawful eviction of encroachers on both wetland and forest land demarcations. This was exacerbated by the political campaigns/elections period where such activities like evictions were halted.
- Acquisition of land for sector infrastructure investments is a big challenge that leads to delays in project implementation as land owners sometimes reject the Chief Government Valuer's rates.
- Increased weather and climate variability affected progress of works, placing a huge demand on the Meteorological Sub-sector demanding for upgrade of existing technologies to fulfill the ever growing needs for reliable weather and climate information.
- The COVID-19 pandemic and the subsequent lockdown effected progress of works leading to non-achievement of targets. In some cases, local revenue reduced especially where seedlings supply, tourists and labour movements were hindered. The Terminal Aerodrome Forecasts and Flight Folders reduced due to the closure of the airport which reduced the demand of these products.
- Lack of or existence of old fleet of vehicles especially in the Local Governments and lack of accommodation units for NFA regional staff. A number of old fleet experience frequent breakdowns hence requiring high operational costs.

### **Recommendations**

- The MFPED should adhere to the annual cash flow plan for the different votes to allow achievement of the targeted outputs.
- The MLHUD should mobilise and sensitise political leaders on land ownership, encroachment and



lawful evictions.

- The MLHUD should advocate for complete overhaul of the land tenure system where government reserves the right over land for development purposes upon settlement of the estimated cost by the Chief Government Valuer.
- The UNMA should prioritise procurement of the relevant equipment to increase information availability and reliability to cope with climate change mitigation and adaptation measures.
- The MFPED should ease/relax the ban on procurement of vehicles especially for districts in crisis after a thorough investigation by the parent ministry otherwise officers will not effectively do their work.





# CHAPTER 1: BACKGROUND

## 1.1 Introduction

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, “To formulate sound economic policies, maximise revenue mobilisation, and ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development”. It is in this regard that the ministry gradually enhanced resource mobilization efforts and stepped up funds disbursement to Ministries, Departments, Agencies and Local Governments in the past years to improve service delivery.

Although some improvements have been registered in citizens’ access to basic services, their quantity and quality remains unsatisfactory, particularly in the sectors of health, education, water and environment, agriculture and roads. The services being delivered are not commensurate to the resources that have been disbursed, signifying accountability and transparency problems in the user entities.

The Budget Monitoring and Accountability Unit (BMAU) was established in FY2008/09 in MFPED to provide comprehensive information for removing key implementation bottlenecks. The BMAU is charged with tracking implementation of selected government programmes or projects and observing how values of different financial and physical indicators change over time against stated goals and targets (how things are working). This is achieved through semi-annual and annual field monitoring exercises to verify receipt and application of funds by the user entities. Where applicable, beneficiaries are sampled to establish their level of satisfaction with the public service.

The BMAU prepares semi-annual and annual monitoring reports of selected government programmes and projects. The monitoring is confined to levels of inputs, outputs and outcomes in the following areas: Accountability, Agriculture, Infrastructure (Energy and Roads); Industrialisation; Information and Communication Technology; Science, Technology and Innovation, Social Services (Education, Health, and Water and Environment); and Public Sector Management. This report presents field findings of the Water and Environment Sector for the semi-annual budget execution for FY 2020/21. The monitoring exercise was conducted between February and March 2021.

## 1.2 Sector Objectives and Priorities

In order to meet the NDP III objectives, the Water and Environment Sector identified priorities that constitute the strategic direction towards addressing national challenges. These are in line with the Sustainable development goals (SDGs) and the strategic investment plan 2018-2030. These 6 key sector priority areas are:

- i) Investments to secure the integrity of water resources at local, regional and national levels with involvement of communities.
- ii) Investment in safe water supply systems and sanitation facilities in rural (including Rural Growth Centers) and Urban areas as well as providing for industrial needs and wildlife in national game parks.



- iii) Promotion of irrigation systems in liaison with the agricultural sector.
- iv) Investment and Strengthening the protection and management of ecosystems and refugee response.
- v) Strengthening the weather, climate and climate change response.
- vi) Capacity and partnership development of both public and private sectors in water and environment resources management.

### 1.3 Sector Outcomes

In order to ensure effective service delivery, the sector has three specific outcome indicators that guide its contribution in realisation of the overall national objectives: i) Improved access to safe water and sanitation facilities for rural, urban and water for production uses for both men and women. ii) Improved availability of good quality and adequate Water Resources to support socio-economic transformation for both men and women. iii) Improved weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources.

**Gender Considerations:** The sector committed itself to promote gender and equity considerations through the sector programmes.

The sector institutional framework consists of the Ministry of Water and Environment (MWE) which oversees operations of Local Governments (Districts and Town Councils), De-concentrated structures including the Water and Sanitation Development Facilities (WSDFs), Technical Support Units (TSUs), Water Management Zones, Water for Production Regional Centers and Umbrella Organisations, National Environment Management Authority (NEMA), National Forestry Authority (NFA), National Water and Sewerage Corporation (NWSC), Uganda National Meteorological Authority (UNMA), Kampala Capital City Authority (KCCA), Development Partners, Private Sector and the Civil Society Organizations (CSO).

To achieve the set objectives and priorities the sector works through six votes namely: Ministry of Water and Environment (Vote 19); National Forestry Authority (Vote 157); National Environment Management Authority (Vote 150); Uganda National Meteorological Authority (Vote 302); Kampala Capital City Authority (Vote 122); and Local Governments (LGs) - Vote 501-850.



## CHAPTER 2: METHODOLOGY

### 2.1 Scope

This report highlights financial and physical performance of selected programmes in the Water and Environment Sector (WES) by 31st December 2020. The programmes monitored were selected from Vote 019 - MWE, Vote 150 - NEMA, Vote 302 - UNMA, and Vote 157 – NFA. This covered seven out of ten (70%) Programmes, 20 out of 60 (33.3%) Sub-programmes (both current and recurrent).

### 2.2 Methodology

Physical performance of sub-programme was assessed through monitoring a range of outputs and linking the progress to reported expenditure. The key variables assessed included: performance objectives and targets; inputs and outputs, and intermediate outcomes.

#### 2.2.1 Sampling

A combination of random and purposive sampling methods was used in selecting projects from the Ministerial Policy Statements and progress reports of the respective Votes. Priority was given to monitoring outputs that were physically verifiable. In some instances, multi-stage sampling was undertaken at three levels: i) Sector programmes, and Sub-programmes, ii) Local governments, and iii) Project beneficiaries. The selection process placed more emphasis on development expenditures of the sub-programmes and the districts were sampled to effectively cover regional representation.

#### 2.2.2 Data Collection

Data was collected from various sources using a combination of approaches:

- Review of secondary data sources including: Ministerial Policy Statements for FY2020/21; National and Sector Budget Framework Papers; Sector project documents and performance reports in the Output Budgeting Tool (OBT); Sector Quarterly Progress Reports and work plans; District Performance Reports; Budget Speech; Public Investment Plans; Approved Estimates of Revenue and Expenditure; and data from the Budget Website.
- Review and analysis of data from the Integrated Financial Management System (IFMS).
- Consultations and key informant interviews with project managers in implementing agencies both at the Central and Local Government level.
- Field visits to project areas for primary data collection, observation and photography.



### 2.2.3 Data Analysis

The data was analyzed using both qualitative and quantitative approaches. Comparative analysis was done using the relative importance of the outputs and the overall weighted scores.

Relative importance (weight) of an output monitored was based on the amount of budget attached to it; thus the higher the budget the higher the contribution of the output to the sector performance. This was derived from the approved annual budget of each output divided by total annual budget of all outputs of a particular programme/project. The weights of the output and percentage achievement for each output were multiplied to derive the weighted physical performance. The overall sector performance is an average of individual programme performances. The performance was rated on the basis of the criterion in table 2.1.

**Table 2.1: Assessment guide to measure performance of sub-programmes monitored in FY2020/21**

SCORE	COMMENT
90% and above	Very Good (Achieved at least 90% of both outputs and outcomes)
70%-89%	Good (Achieved at least 70% of both outputs and outcome)
50%- 69%	Fair (Achieved at least 50% of both outputs and outcomes)
49% and below	Poor (Achieved below 50% of both outputs and outcomes)

### 2.3 Limitations

1. Uncoordinated sub-programmes/outputs which do not contribute to the major project objectives/ programme outcomes. The outputs are lumped together under projects for budgeting purposes which is a reflection of poor planning.
2. Some output activities are qualitative, without specific target figures and costs and the sector performs based on the availability of funds, this makes it challenging for analysis.
3. Limited information to analyse the sector outcome target indicators which makes the available data unauthentic to determine achievements.
4. Inability to track donor fund and LG expenditures and because that is not on the system. Depends on what individual entities tell you and the figures keep changing with different reasons.
5. The scope of work sometimes is not enough to make conclusive remarks because of limited personnel and time to do the work.
6. The performance of a programme may not necessarily mean the vote is doing well given the limited resource allocation and low output targets.



## CHAPTER 3: SECTOR PERFORMANCE

### 3.1 Overall Sector Performance

#### Overall Financial Performance

The sector budget allocation for the FY2020/21 was Ug shs 1,721.44bn (tax arrears exclusive), as reflected in table 3.1.

**Table 3.1: Overall Sector Financial Performance by 31<sup>st</sup> December 2020 (in Bn Ug shs)**

Vote	Budget	Release	Expenditure	% Budget Released	% Release Spent
MWE	1,514.56	394.36	356.75	26.04	90.46
UNMA	25.56	9.09	8.71	35.56	95.80
NFA	42.58	14.66	10.80	34.42	73.68
NEMA	26.61	8.26	6.89	31.04	83.45
*KCCA (Sanitation and Environmental Services Programme)	17.23	10.58	*	61.4	*
*DLG (Water and Environment)	94.90	60.68	*	63.9	*
<b>Totals</b>	<b>1,721.44</b>	<b>495.63</b>	*	<b>28.79</b>	*

Source: Approved Budget Estimates, and Vote Q2 Performance Reports;

\*Expenditures for KCCA and DLG were not readily available

#### Overall Sector Performance

The Water and Environment Sector performance was good at 79%, and a good number of programmes exhibited good performance attaining above 70% of the semi-annual targets. The Urban Water Supply and Sanitation performance was very good while the rest performed well (Rural Water Supply and Sanitation, National Environment Management Authority, National Forestry Authority, Uganda National Meteorological Authority (UNMA), Natural Resources Management apart from Water for production whose performed was fair (table 3.2).

Performance measurement was based on achievement of semi-annual planned outputs. The sector continued with the construction of piped water systems in rural and urban areas. More water supply systems had been constructed than had been planned to provide water to communities during the COVID 19 pandemic. The irrigation systems of Rwengaaaju, Mubuku II and Tochi were substantially completed.

**Table 3.2: Overall Sector Performance by 31<sup>st</sup> December 2020**

Programme	Weighted Score (%)	Remark
Rural Water Supply and Sanitation	76.4	Good performance
Urban Water Supply and Sanitation	99.7	Very good Performance
Water For Production	56.6	Fair performance
Natural Resources Management	78.0	Good performance
Environmental Management (NEMA)	87.-6	Good performance
Forestry Management (NFA)	84.7	Good performance
National Meteorological Services (UNMA)	73.6	Good performance
<b>Average Overall Performance</b>	<b>79.5</b>	<b>Good Sector Performance</b>

Source: Authors' Compilation

### 3.2 Ministry of Water and Environment

The Ministry of Water and Environment (MWE) is responsible for sound management and sustainable utilisation of water and environment resources for the present and future generations. The MWE is guided by the following sector strategic objectives in the implementation of the policies and programmes;

1. To protect and manage the quantity and quality of water resources to ensure maximum benefits for production and guarantee water resources access and security for all sectors of the economy.
2. To increase households access to basic safe and affordable water supply in rural areas from 69% to 80% by 2025 while ensuring availability of at least one source per village and promote improved sanitation paying special attention to the needs of women and girls and those in vulnerable situations in order to reduce the number of deaths and illness related to poor water supply and sanitation.
3. To increase overall access to safe and affordable water supply in urban areas from 78% to 88% by 2025 in order to progressively fast track achievement of coverage for all by 2040.
4. To increase cumulative Water for Production (WfP) storage capacity from 41.12 Million Cubic Meters (MCM) to 60.3 MCM by 2025 to support irrigation development and utilization for sustainable agriculture and increase incomes and employment opportunities.
5. Enhance the contribution of forestry to GDP to reach 4% by the end of FY 2024/250.
6. Increase the wetland ecosystem coverage to reach 11.5% of the total land area by end of end 2024/25 and promote sustainable use of the resource for private sector development.
7. Ensure sustainable management of the environment for production, livelihood, improvement and sustainable development.
8. Ensure regulation, compliance and monitoring of all aspects of the environment for sustainable economic growth.
9. Enhance control and management of chemicals, pollution and related environmental disasters for a clean, healthy, and productive environment.



10. Enhance public environmental awareness, literacy and access to information for improved and sustainable environment management.
11. To improve the accuracy, timeliness and responsiveness of meteorological data and products for sustainable socio-economic transformation.
12. To enhance coherence among institutions and actors and strengthen capacity for implementation, transparency monitoring and reporting on climate change both for national and international levels.
13. To develop sector capacity throughout all the institutions and support other stakeholders in the sector.
14. To review, develop and reform institutional frameworks, laws, policies and regulations to ensure fast and effective delivery of services.
15. To promote gender and equity considerations and increase the fight against HIV/AIDS through the sector programmes.

### 3.2.1 Rural Water Supply and Sanitation Programme

The Rural Water Supply and Sanitation (RWSS) programme is responsible for the provision of safe water supply and sanitation facilities to rural communities. The objective is to ensure availability and access to safe and clean water as well as hygienic sanitation facilities in rural areas countrywide. In FY 2020/21, the approved budget of the programme is Ug shs 146.57bn, of which Ug shs 67.73bn (46.2%) was released and Ug shs 53.27bn (78.7%) was spent by end of December 2020. The release and expenditure performances were good. The programme is implementing four development sub-programmes in the financial year, of which two were assessed. Findings from the assessment exercise are highlighted hereafter:

#### 3.2.1.1 Solar Powered Mini-Piped Water Schemes in Rural Areas Sub-Programme

It's estimated that over 80% of Uganda's population resides in rural areas (UBOS) that are characterised by Rural Growth Centers (RGCs) with populations ranging from 1,500 to 5,000 persons. The predominant safe water supply technology in there is the hand pump borehole which can only extract approximately 700 liters per hour, thereby causing delays, conflicts and time wasting hence unreliable for RGCs. Due to the population increase and large numbers of RGCs in the country, it is recommended that high yielding boreholes are powered with solar energy to supply multiple stand posts, in order to reduce on the challenges associated with hand pumps to serve an estimated population of 3,500 – 6,000 persons with design period of 15 years. The sub-programme commenced in July 2015 and ends in June 2020. Its main objective is to upgrade the service levels of safe water supply in rural communities thereby reducing on risks related to water borne disease and improve livelihood of the rural communities.

The annual approved budget in FY 2020/21 was Ug shs 39.43bn, of which Ug shs 29.37bn (74.5%) was released and Ug shs 22.67bn (77.2% of the release) was spent by 31<sup>st</sup> December 2020. Both release and expenditure performances were good.

The key planned outputs under this sub-programme included: i) Back up support for operation and maintenance of rural water provided through sensitisation activities, formation of community based water management structures, and quarterly review meetings conducted; ii) Sanitation and hygiene education promoted; iii) Progress on construction works monitored; iv) Land for construction of water works acquired; v) Water supply systems constructed (40 mini solar powered piped systems constructed to 70% in two lots of 20 mini systems each; Mpungu-Nyakazinga WSS in Kasese District to 50%, Kanyabwanga in Mitooma District to 60%, Kabuyanda in Isingiro District to 100%, Lirima II in Manafwa District to



100%); and vi) Point Water Sources constructed (100 production wells, 70 large diameter wells and 200 chronically broken down boreholes rehabilitated countrywide).

## Physical Performance

By 31<sup>st</sup> December 2020 achievements under the sub-programme on the outputs above were as follows: The National Framework for Operation and Maintenance of Rural Water Infrastructure was launched and disseminated to District Water Officers in Karamoja, West Nile, Lango, Acholi and Rwenzori Sub-Region regions and central region. Additionally, the design manual for solar powered systems were launched in September at the Joint Sector Review Meeting; a virtual Quarterly Operation and Maintenance (O&M) review meeting with Water and Sanitation (WASH) stakeholders was conducted; management structures for operation and maintenance of constructed point water sources were formed and trained. Communities around the drilled water points and 40 solar mini schemes were sensitised focusing on facility ownership, operation and maintenance and HIV/AIDS and good sanitation and hygiene practices.

Progress on construction works were as follows: Lirima II gravity flow scheme (GFS) was constructed to 99% completion; Mpungu-Nyakazinga GFS-Inception Report was submitted and reviewed by the contract management team. Kanyabwanga WSS was handed over to the contractor to commence construction in December 2020. Kabuyanda WSS was constructed to 75% completion. The 40 solar mini sites were at 60% overall completion progress save for Mityana which had a faulty well. Other older solar sites were supported through trainings, replacement of inverters in Nagojje Solar System in Mukono District, and Morukakise in Ngora District. A remote monitoring technology was installed on 30 completed solar systems to enable timely response to O&M issues. A total of 341 boreholes were rehabilitated countrywide; a total of 201-point water sources were drilled across the country (145 Hand pumped wells and 56 production wells).

## Field findings

The performance of the solar mini piped systems was: Under Lot I 61.5% payment was made against 67% overall physical progress over a 56.7% time laps. While under Lot II, 52.4% was paid against physical progress of 62% and time period of 43%. The monitoring team did field verifications at various sites and the findings were as shown hereafter:

### i) Sembwa Solar Powered Mini Piped Water System in Nakaseke District

The system was 100% completed and serves two villages of Sembwa and Kifumbe. The water system had three public stand posts and five yard taps. The source is a borehole and uses 14 solar panels. Water was already flowing, and the system awaits commissioning, although road works had cut the pipe connecting to the reservoir and there was a small leakage at the reservoir. Since the system was yet to be handed, the contractor was expected to rectify some of these snags.





L-R: PSP and solar panels for Sembwa Solar Mini Piped System in Nakaseke Sub-county, Nakaseke District

## ii) Ngando Solar Mini Powered Water Scheme in Butambala District

This scheme was substantially complete, however, due to the high pressure, the meter connections were leaking and required changing. There was need to put up a break pressure tank which the contractor had started building. The system has seven PSPs and 10 yard taps but the demand was still quite high. For example, the police post area was in dire need of service. The ministry could consider expanding the service area since the quantity of water is enough.



Solar panels



A public stand post

### Implementation Challenges

- Delayed commencement of WSS works subsequently delayed sanitation activities in Mpunga Nyakazinga and Kabuyanda.
- Delays in acquisition of land due to the high costs and long settlement processes.
- Delays in importation of materials from China due to the COVID-19 pandemic.
- Delayed payments due to limited releases hindering the contractor's work progress.



## Recommendations

- The MWE should acquire all land for infrastructure development before commencement of the projects.
- The MWE should negotiate for reduced bureaucratic procedures in the approval process for payments to allow enough time for the contractor to do his work.

## Conclusion

The construction works for all schemes monitored were progressing well, save for Mityana where construction did not comment due to site yield which was not good. The Rural Water Supply Sub-Programme provides the supervisory role, while management of the systems will be under the Umbrella Organisations of MWE. All the Water Use Committees (WUCs) have a female member. The systems were equitably distributed across the country, with one scheme per district, and targeting districts with low coverage. Change of reservoir sites increased the distance (Km) of pipe network in the solar mini systems thus increased work, which was already affected by the COVID-19 pandemic in regard to inflow of materials, cash flow and land acquisition.

### 3.2.1.2 Piped Water in Rural Areas Sub-Programme

This sub-programme addresses water supply and sanitation challenges in communities that deserve interventions, but are without specific donor support. The sub-programme also focuses on water supply improvements in water stressed areas of the country, fast tracking implementation of governments manifesto pronouncements and presidential pledges. It develops and promotes appropriate technologies for water and sanitation in the rural areas such as development of solar water supply installations on high yielding deep boreholes to serve bigger populations with the same source, increasing uptake of rainwater harvesting, large gravity flow water supply systems and large scale rural water pumped water supplies. The project period of 1<sup>st</sup> July 2015 to 30<sup>th</sup> June 2018 was extended to 30<sup>th</sup> June 2020.

The sub-programme objectives are to:

- Increase access to piped safe water through powered motorization of high yield production wells.
- Contribute to capacity building efforts especially amongst districts and sub-district level staff, administrators, leaders, CBOs and civil society. This will especially be towards improvements in planning/management and technical skills to support sustaining interventions.
- Provide water supply systems that will achieve economy of scale, require least cost energy, and sustainably operated and maintained by the community themselves through the Sub-county.
- Promote better health through improved hygiene, excreta disposal and environmental management practices.
- Reduce the time spent walking long distances in search of safe water supply and improve enrollment in schools as time spent collecting water is substantially reduced.
- Improve the water supply service levels in rural area to enable rural the population in the project areas to increase their economic income through incorporating back yard or mini irrigation system.
- Innovate and promote appropriate technology for water and sanitation in rural areas especially in difficult situations where conventional technologies are not appropriate.
- Promote Rain Water Harvesting in water stressed areas through construction of demonstration system and training of artisans and village groups on the construction and maintenance of the facilities.



The annual approved budget in FY 2020/21 was Ug Shs 55.54bn, of which Ug Shs 30.65bn (55.12%) was released and Ug Shs 25.82bn (84.24% of the release) was spent by 31<sup>st</sup> December 2020. The release performance was fair, whereas the expenditure was good.

The key planned outputs were: i) Backup support for O&M of rural water supplies provided, ii) Sanitation and hygiene education promoted in towns where WSS are being constructed, iii) Appropriate water and sanitation technologies researched and developed and iv) Piped water supply systems constructed. The achievements of the sub programme by end of December 2020 against the planned outputs are hereby presented below:

### Physical Performance

Advocacy meetings were held with LGs and communities in the project areas in order to identify land for construction of project components and to create awareness and demand for water connections. Management structures for operation and maintenance were yet to be formed and trained after completion of the construction works.

Sanitation and hygiene improvement campaigns were conducted in Orom and Lukalu-Kabasanda WSS areas where households were assessed for water connections. The assessment criteria require the household to fulfill some sanitary and hygiene measures such as possession of a fecal disposal facility among others.

Under research and development, an assessment was conducted in communities of 15 districts around the major water bodies of Kyoga, Victoria, Albert and River Aswa that were affected by rising water levels. Two water purification technologies i.e. the LADIS UV based and Spout filter were assessed at point of use.

Appropriate technologies were promoted through distribution of 354 fabricated peddle assisted hand washing facilities in seven districts; A step by step construction manual for a 100,000-liter rainwater harvesting tank was developed for communities. A basic laboratory for testing the quality of drinking water was established at the Appropriate Technology Center (ATC) offices to aid technology profiling and certification. A mobile training and technology promotion facility with fully fledged equipment was installed. A community group of 25 members in Busaana Sub-county, Kayunga District was trained on construction, operation and maintenance of a low cost Fossa Alterna toilet and bio gas toilets.

Construction works progressed as follows: Kahama II piped WSS - 72%; Lukalu-Kabasanda WSS - 80%; Orom GFS - 68%; and the highway sanitation facility - 75%. Monitoring and supervision of works were carried out through site meetings in Orom GFS in Kitgum District, Kahama II in Ntungamo District and Lukalu-Kabasanda WSS in Butambala District.

### Field findings

The BMAU monitoring team conducted field verification assessments of two WSS:

#### i) Construction of Kahama II Water Supply and Sanitation System

The WSS is located in Nyakihoko Sub-county in Ntungamo District. Overall physical performance was at 72% against the time lapse of 100% and payments of 65%. The office block at 95% remained with electro mechanicals, painting, compound works and gate installation. The source was at 98% completion. The source of water is a spring and sedimentation tank of 150m<sup>3</sup> was at 98% as internal finishes were on going. About 20.3Km of transmission main were laid. The remaining with connection to the water source and to the reservoir tank.



The pump house, chlorine house, guardhouse and an ecosan facility construction works were at finishes including painting. Remaining works included installation of pumps and a transformer, a support system for the 550m<sup>3</sup> reservoir tank. Distribution Network, the excavation for and laying of distribution pipes was ongoing. A total of 20.3km laid. Construction of valve chambers was ongoing and Intensification Network had not started. Painting of the office block, chlorine houses, guard house and attendant's house was ongoing. The system's target was 200 tap stands but an overwhelming demand was received from the two sub-counties of Nyabiho and Nyabushenyi. About 1,355 applications were received. Site clearance for two sanitation facilities at Ruhanga and Katoma primary schools was at 5%.

### Challenges

- 1) Delayed advanced payments by almost a year slowed works during the COVID-19 lockdown. This affected the financial commitments of the contractor especially as the bank requirements were violated.
- 2) Heavy rains from October-December in 2019 caused floods thus the source and retention wall for the reservoir collapsed delaying works for over a month.
- 3) Land acquisition involved long negotiations with several people including the district chairperson, Resident District Commissioner, and 13 landlords.
- 4) The COVID-19 pandemic affected progress of works from 18<sup>th</sup> March 2020 to date.

### Recommendation

The MWE should ensure all land clearance processes are done before project commencement to avoid delays.

#### ii) Construction of Lukalu-Kabasanda Gravity Flow Scheme in Butambala District

The WSS was at 70% completion. It has two transmission lines. Line one was constructed for phase I from the spring which was completed and water flowing. Line two was the GFS line. The sources are two boreholes (one at Lukalu and another at Kabasanda). These were constructed as an expansion of the project to unserved areas. The transmission main laid was 1.3Km out of the planned 11.8Km and 7.7Km distribution network laid out of 40Km planned. The sedimentation and collection tanks were complete for line two; 100m<sup>3</sup> main Reservoir in Lukalu remained with plumbing works. The two steel 30m<sup>3</sup> tanks to be elevated on towers at Nambeya and Nzozi hills were not yet done. The water office at Kalamba remains pending painting and plumbing works for the six stance toilet and landscaping. The construction of three sanitation facilities in Kabasanda TC, at Kalamba S/C and Mirembe TC was at 83% completion remaining with final paint coat and plumbing works. The WSS has three kiosks at Seeta, Kabasanda and Mirembe town councils (TCs) with a target of 550 connections, but only 84 were done and water was received at 80 taps. The two pump houses are complete with a chlorine house at Lukalu though the pumps have not yet been installed.



A kiosk at Lukalu TC



An Ecosan toilet in Lukalu TC

## Challenges

- Delays in securing land for the infrastructure development.
- The COVID-19 pandemic slowed down works as movement of workers was difficult.

### iii) Construction of a Highway Public Sanitation and Hygiene Facility in Kiruhura District

The plan is composed of the sanitation, lockups and restaurant, an attendant's house and a pharmacy that were at different completion levels. The site works were at 68%, toilet/sanitation facility 78%, lock ups and restaurant 75%, attendants house 78% at a time elapse of 85.45% and overall physical performance of 75%. All roofing works were done, door and window frames fixed. The tiles were on site awaiting fixing and other finishing works. The upper and lower compounds were leveled remaining with planting grass on upper side and pavers on the lower part. The payments were at 70.94%.



L-R: Office Block and sanitation facility block with restaurant and lock up shops in Sanga Town Council, Kiruhura District

## Challenges

- Acquisition of land took long thus delayed commencement of works for four months and site location had to be changed. The first sight at the junction of Kaguta and Mbarara roads was overpriced. This significantly affected progress of works.
- Site conditions at the alternative site were affected progress. Several earthworks at the new site were not expected. This delayed works for over one and a half months.



- Heavy rains from October to December 2019 delayed works for over a month.
- The COVID-19 pandemic affected progress of works.

### Overall Performance

The overall programme performance by half year was good at 76.4% as summarised in table 3.3. Substantial achievement of planned outputs was observed especially the construction of point water sources. More boreholes were drilled than what was planned. The COVID-19 pandemic and political pressure during the election period led to provision of more water sources to communities. Community sensitisations, promotion of hygiene and sanitation in Orom, Lukalu-Kabasanda and solar mini sites were among the key achievements. Construction works were in progress as observed at 60% for the solar mini systems, the highway sanitation in Kiruhura at 75%, Lukalu-Kabasanda at 70% and Kahama II piped system at 72% progress. Although some planned works had not yet commenced such as the rehabilitation of Ayara, Mpungu-Nyakazinga, and Kanyabwanga among others.

**Table 3.3: Performance of Rural Water Supply and Sanitation Programme by December 2020**

Output	Annual Budget (000 Ug shs)	Cum. Release (000 Ug shs)	Annual Target (%)	Achieved Quantity (%)	Weighted Score (%)
Back up support for O&M of Rural Water	2,178,236	745,089	100	57	2.36
Promotion of Sanitation and hygiene education	1,157,000	313,500	100	63	1.26
Research and development of appropriate water and sanitation technologies	400,000	106,000	100	60	0.43
Monitoring and capacity building of LGs, NGOs and CBOs	1,762,000	324,089	100	70	1.91
Acquisition of land by government	500,000	275,000	100	70	0.54
Construction of Piped Water Supply Systems (Rural)	58,968,244	34,569,360	100	37	40.38
Point Water Sources constructed	27,200,000	23,688,691	100	100	29.51
<b>Programme Performance (Outputs)</b>					<b>76.40 (Good Performance)</b>

*Source: MWE and Field findings*

### Key programme challenges

- Challenges in land acquisition for the water supply major components takes quite long causing delays of progress of works.
- Heavy rains from October to December 2019 delayed works and some cases caused floods.
- The COVID-19 pandemic affected progress of works as some materials and labour transport in and from outside the country was restricted by transport.



## Recommendation

The sector should continue trying to settle land conflicts before project initiation to avoid delays in works progress.

## Conclusion

The programme has many projects whose contracts were extended. The major cause of delays was nonpayment of certified works and land conflicts which delayed project initiation. Sometimes work halted because of un-resolved conflicts. In other cases, it was the verification protocols on the documentation that caused delays especially for absent landlords, and hiked prices compared to the Chief Government Valuer's estimates. More so, payment requests for the drilling and construction works were received at the end of the quarter and so could not be captured before the works were verified.

### 3.2.2 Urban Water Supply and Sanitation Programme

This programme is responsible for provision of viable and sustainable urban water supply and sewerage/sanitation systems for domestic, industrial and public hygiene uses in small and large towns of Uganda. Programme objective is "To provide safe water and improved sanitation facilities in Small Towns, large towns, Municipalities and the cities through MWE and NWSC." In FY 2020/21, the approved budget of the programme is Ug shs 929.27bn, of which Ug shs 178.80bn (19.2%) was released and Ug shs 164.75bn (92.1% of funds released) spent by end of December 2020. The programme implemented 14 development sub-programmes in the FY of which seven (7) were assessed. Their performance is assessed as detailed hereafter:

#### 3.2.2.1 Protection of Lake Victoria-Kampala Sanitation Sub-Programme

Protection of Lake Victoria is part of a broader Kampala Sanitation Programme implemented by NWSC in a phased approach. The first phase entails construction of three decentralised satellite sewage treatment plants with associated sewer networks located as follows:

- Nakivubo Wetland to serve the central business district of Kampala.
- Kinawataka Wetland to serve the eastern parts of Kampala particularly Nakawa industrial area, Naguru, Kyambogo and neighboring areas.
- Lubigi Wetland to serve the north and north western parts of the greater Kampala namely Mulago, Katanga, parts of Makerere and Kawempe, Nansana, Namungona Bwaise among others.

The project start date was 31<sup>st</sup> March 2010 and ended on 30<sup>th</sup> June 2018, although it was extended to 30<sup>th</sup> September 2019. Another request for extension for one year was granted, mainly for financial reconciliations and settlement of claims. To date Lubigi and Kinawataka sewage treatment projects (a treatment plant and associated sewer networks) were completed. The Nakivubo Waste Water Treatment Plant is at substantial completion.

The project objectives are: 1) To provide improved urban hygiene, sanitation as well as protection of Kampala's natural environment through expansion of sewer network coverage within the metropolitan Kampala; 2) To provide improved management of sludge from onsite sanitation facilities; 3) To provide hygiene education in informal settlements within Kampala.



The approved annual budget of the sub programme for the FY 2020/21 is Ug Shs 35.09bn, of which Ug Shs 24.54bn (69.93%) was released and spent by end of December 2020. The release performance was good, while expenditure was very good. The planned output in the FY is the Nakivubo Wastewater Treatment Plant (NWWTP): Construction of Nakivubo Wastewater Treatment Plant completed to 100%.

### Physical Performance

The plant was constructed to 99% overall completion. The performance is presented hereafter:

The Nakivubo Waste Water Treatment Plant has two components: i) waste water treatment component (liquid section), and ii) sludge generation component. By end of December 2020, the overall progress of the Nakivubo Waste Water Treatment Plant was at 99% completion. Internal road works and landscaping were in progress. The liquid section was operational. Sewerage from the Kampala business areas (town) and that collected from the Kinawataka Treatment Plant was being treated. Monitoring of the inlet structure; pump station; screens and aerated grit chambers, primary sedimentation tank, aerated trickling filter unit, clarifiers, bio filters, and the associated fittings and electro-mechanicals were ongoing. The sludge generation and treatment component was yet to be completed. The bio digesters had on going electromechanical works, pending testing and commissioning.



The two bio digesters (blue) and in front is the power generation house

### Challenges

- Physical progress was affected by the COVID-19 pandemic that led to repatriation of international experts hence affecting progress on site
- Inadequate counterpart funding leading to severe cost overruns due to accumulated interest on delayed payment. The total cost came to 15million Euros and then this was negotiated to 5million Euros with the interest of 3% accruing per month that passes.
- Costly compensation claims over land. The contested cost for the sewer lines was about Ug shs 255bn, whereas the offer was about Ug shs 90m.





## Recommendations

- The GoU should prioritise funding projects with counterpart financing during budgeting and distribution of funds.
- The GoU should encourage and enforce cross-sectoral infrastructure planning

### 3.2.2.2 Kampala Water Lake Victoria Water and Sanitation Sub-Programme

The Kampala Water Lake Victoria Water and Sanitation Sub-programme is aimed at promoting sustainable socio-economic growth and improved health through enhanced access to safe water, thereby contributing to the poverty eradication efforts of Government. The project targets to provide safe water to a population of over four million within the Greater Kampala Metropolitan Area (GKMA) up to the year 2035. The project period was from 7<sup>th</sup> January 2011 to 30<sup>th</sup> June 2019, but under Phase II extended to 2026.

The project objective is to increase coverage, reliability and access of clean, affordable and economically viable water supply services for the population of metropolitan Kampala, in particular the urban poor, for sustainable growth until 2035.

The approved annual budget for the FY 2020/21 is Ug Shs 280.34bn, of which Ug Shs 25.89bn (9.2%) was released and spent by end of December 2020. The release performance was poor.

The planned outputs were: i) Katosi Drinking Water Treatment Plant (WTP) constructed up to 100% completion; ii) Katosi-Kampala drinking water transmission main completed to 100%; iii) Water and Sanitation Infrastructure for the Informal Settlements constructed. The sub-programme was assessed for semiannual performance and findings were as follows:

#### Physical Performance

By February 2020, the overall progress of the Katosi Water Treatment Plant works was at 90%; the transmission mains had progressed to 98% (50.7km laid out of 51.6km). The informal settlements were at tendering stage.

#### Field findings

##### i) Katosi Drinking Water Treatment Plant

The civil works were at 95% and mechanical at 100% completion. A tank of 15,000m<sup>3</sup> capacity was constructed. Landscaping and installation of the electromechanical works were ongoing. The contract period was 730 days but 760 days had been spent. The pipe works for the mains were not yet complete, as abstraction pipework was ongoing. Transportation of materials from Mombasa was delayed owing to COVID-19 clearances. The contract payment was on track at 78% although the GoU counterpart funding will be pushed to the tail end projects since only 5m Euros out of the planned 34m Euros was realised. The Project Affected Persons (PAPs) compensations remained with three cases related to proof of ownership in terms of sex and consent on rightful receivers.



Power was extended to all staff houses and were in occupancy since July 2020. About 48Ha was demarcated as a catchment area and will be replanted with trees in the defects liability period (DLP). About 75% of the pipe laying along the pumping main was achieved. Civil works for the clear water pump house were completed and installation of the electro and mechanical equipment was ongoing. Roofing of tank no.3 and tank no.4 at Nsumba Reservoir Site was completed (10m liters each). Water tightness testing and tanks interconnections was ongoing.

## ii) Katosi Drinking Water Drinking Water Reservoirs and Pumping Main

The works progress was at 89% with payment at 74.7%. The project started on 15<sup>th</sup> September 2017 and runs for two-and-a-half-years. The source is surface water source (Lake Victoria at a yield of 240,000m<sup>3</sup>/d). The treatment reservoir of 160,000m<sup>3</sup>/d was completed. The reservoir tanks 4 (No) each of 10,000m<sup>3</sup> were at finishes levels. There was a contract variation of Euro 7,595,000 from Euro 82,213,231 (Phase 1a and 1b) to Euro 89,808,231. This was due to increase in scope of works to include the Improvement of Gaba 1 Treatment plant. The overall progress for construction of Katosi (Nsumba)-Kampala (Naguru) transmission mains is estimated at 98.6% and 50.7km out of 51.6km of pipeline has been laid. Construction of the chambers was done, and both the inlet/outlet pipe sections completed.

### Pipeline

A total length of 51,437m of pipeline was laid (39,676m of DN 1400; 9,421m of 700; 1,560m of DN 600; and 780 M of DN 500). A Total length of 15,437 m of pipes had been pressure tested (27,957m of DN 1400; 9,200 m of DN 700; 1,403 m of DN 600; and 695 m of DN 500).

### Sonde Reservoir

Construction of a reservoir of 15,000 liters at Sonde hill, a pump station and a 600mm pumping main to Naguru as well as a booster station at Namugongo were substantially complete. The concrete works for Sonde reservoir was estimated at 95%. The remaining major works included laying of 80m of pipes, pressure testing of 11Km of laid pipes, pump testing of Namugongo booster, flushing and commissioning of the pipeline.

### Namugongo Booster Station

The three pipes had been delivered at the booster station waiting for pump testing. Progress of Namugongo booster station was estimated at 90%.



L-R: Electro Mechanical works ongoing at the Water Treatment Plant in Katosi



One of the four 10,000m<sup>3</sup> Reservoir Tanks at Nsumba Hill in Mukono District



## Implementation Challenges

- Low disbursement rate of counterpart funds from GoU. Of the Euro 34 million counterpart funding committed by GoU, only Euro 5million was released and yet the donor funding for KW LV WATSAN I was 100% disbursed. This created a funding gap which posed a risk to closure of ongoing projects.
- Prolonged procedures in obtaining approvals from all authorities. Many approvals are required at each stage of implementation i.e. NWSC Contracts Committee, Solicitor General, Development Partners which are all necessary but all this contribute to delays.
- The COVID-19 pandemic caused delays in implementation of projects. Some experts were not able to report to site to execute their duties due to International restrictions on movements. More so, local staff were not able to access site for almost two months during the lockdown. Furthermore, materials and equipment from outside the country could not be accessed.
- Interruption of procurement processes by whistle blowers and unsuccessful bidders causing delays in implementation. The procurement process was halted for almost a year due to complaints from a disgruntled bidder which necessitated investigations and checks on the process. In the end, it turned out that the bidder had no evidence and the claims were baseless.
- The process of relocation of utility services and PAPs was gruesome as some parts of the pipe corridor in the UNRA reserve were still incumbent.

## Recommendations

- The GoU may try to reduce commitment percentage contribution of counterpart funding.
- The MFPED negotiations for donor funds should ensure fully funded projects or a lesser commitment than government is able to meet with the counterpart funding.
- The MWE should plan appropriately with utility agencies to allow for synchronized project implementation to reduce delays.
- The MWE should acquire land for installations before commencement of works.

### iii) Water and Sanitation Infrastructure for the informal settlements constructed

By 31<sup>st</sup> December 2020, the project was at works tendering stage with evaluation of financial proposal ongoing, NEMA clearance for the Environmental and Social Impact Assessment (ESIA) report was secured and financial proposals opened.

## Conclusion

The Katosi Water Treatment Plant and transmission mains project is expected to be commissioned in the next financial year (FY2021/22); and will cover the water demand for the entire Kampala Metropolitan Area until the year 2025 and ultimately the year 2040. The works delayed due to UNRA road reserve compensations. These will cost about 5m Euros to the GoU. Counterpart funding has not easily been realised thus leaving a funding gap, however, the Ministry of Finance negotiated with the donor to cover up the funding gap of NWSC by KW-LV-WATSAN II.



### 3.2.2.3 Water Services Acceleration Project/ Sub-Programme

The 100% Service Coverage Acceleration Project (SCAP 100) is in line with the Government policy direction of ensuring 100% service coverage in all villages across the country. The project aims to ensure that 10,609 villages and 7.7 million people living within the National Water and Sewerage Corporation (NWSC) Services Areas countrywide have access to reliable and safe drinking water by 2020. The project period was originally from July 2017 to June 2020, and an extension up to June 2021 was granted.

The project objective is to: Construct cost effective safe water supply schemes and ensuring 100% system functionality; Installation of 140,000 new water connections and 20,000 Public Stand Posts (PSPs) by 2020; at least two PSPs per village.

The approved annual budget for the FY 2020/21 is Ug Shs 50bn, of which Ug Shs 36bn (72%) was released and all spent by 31<sup>st</sup> December 2020. The release and expenditure performances were very good.

The key planned outputs were: i) 2,493,006 meters of pipes and respective fittings procured and laid in all NWSC service areas countrywide. ii) A water treatment plant in Kapeeka in Nakaseke District was substantially completed. The achievements of the sub-programme against the planned outputs are presented below:

#### Physical Performance

A total of 269,360 meters of pipes and fittings were procured and laid in all NWSC Areas between July and December 2020 against the target of 2,600Km. The connections made were 3,686 against the planned 6,919; 2,773 PSPs against 36,000 target. The water treatment plant of Kapeeka WSS had progressed to 89%. The construction of filters, clarifiers and clear water tank were completed. The COVID-19 pandemic and its mitigation measure affected project implementation adversely as most of the activities of pipe laying were put on hold.

#### Field findings

##### Upgrading of Kapeeka Water Supply System in Nakaseke District

The project will provide additional 5,000,000ltrs/day (5,000m<sup>3</sup>/day) of water intended to serve Kapeeka Industrial Park and villages in the sub-counties of; Kapeeka, Semuto, and Semuto Town Council in Nakaseke District, and Bukomero and Bukomero Town Council in Kiboga District. In terms of population, the project will serve additional 160,000 people after completion. About 7,000,000ltrs/day will be extracted from River Mayanja (1 surface water source). In addition, two boreholes were drilled with a total safe yield of 50m<sup>3</sup>/h (1,200,000ltrs/day). About 2.4 of the 2.7 planned of raw and treated water pumping mains was laid. the distribution main to Kapeeka Industrial Park, of 7.8Km. Construction of a new (5,000,000ltr/day capacity) plant was about 80% complete. A steel tank of storage capacity 600m<sup>3</sup> was 100% complete. Though there was a slight leakage of the tank.



Ongoing works at the treatment plant and source expansion in Kapeeka WSS, Kapeeka Sub-county Nakaseke District

### Implementation challenges

- The COVID-19 pandemic slowed progress of works including the contractor logistical operations, delivery of materials to site and construction activities during the lockdown.
- Late release of funds from government.
- Delays in supply of the pipes from prequalified suppliers.
- Slow inflows of income due to COVID-19 delayed procurement of meters.

### Recommendations

- The contractor should expedite works implementation in order to finish within the contract period.
- The NWSC should increase engagement of suppliers to ensure timely delivery of pipes.
- The NWSC should carry out procurement of water meters early enough.

### 3.2.2.4 Water and Sanitation Development Facility - South Western-Phase II Sub-Programme

The Water and Sanitation Development Facility–South Western (WSDF-SW) Phase II is a successor project of the phase I implemented from July 2008 to June 2019. The rapid increase in urbanisation and urban populations is attributed to: 1) gazetting of new urban areas, 2) high fertility rate and 3) rural-urban migration. These have led to the current identification of over 300 Small Towns and Rural Growth Centers (STs/RGCs) with over two (2) million people that are in dire need of Government intervention in provision of piped water and sanitation in the South Western region of Uganda. Some of the existing Water Supply Systems have exceeded their design horizon and are in need of redevelopment to meet the prevailing and future safe water demand. The phase II shall be implemented from July 2019 to June 2024.



The key project objectives are to ensure:

- i. Development of piped water supply systems in the targeted STs/RGCs that are safe, adequate, reliable and accessible.
- ii. Improved general health conditions through reduction of water borne diseases and promotion of good practices of hygiene and sanitation in the while targeting 100% toilet coverage (basic sanitation).

The approved annual budget for the FY 2020/21 is Ug Shs 11,523,930,000, of which Ug Shs 7,373,858,750 (63.99%) was released and spent by 31<sup>st</sup> December 2020. The release and expenditure performances were very good. The key planned outputs during the FY were: Backup support for operation and maintenance of piped water systems; Sanitation and hygiene improved in the implementation towns; piped water supply systems constructed. The achievements of the sub programme against the planned outputs are presented hereafter:

### Physical Performance

By 31<sup>st</sup> December 2020, community sensitisation meetings were conducted at Bigando and Nyakatonzi project sites in Kasese District; EIA for Karago Water and Sanitation Project was completed. Site meetings for ongoing projects were conducted; Land for Kashaka-Bubaare hosting the second production borehole was fully paid by WSDF-SW; a land title for the MWE regional office block in Mbarara District was secured. Construction works were at: Bigando: 65%; Nyakatonzi: 55%; Igorora: 60%; Karago-II: 00% (MoU between WSDF-SW and NWSC) was signed by the Permanent Secretary. Construction of the second office block for MWE-SW region was at 20%. Designs were underway for 28 small towns and rural growth centers. The design process had reached 90%, awaiting approval by the design review committee.

Findings from schemes monitored

#### i) Construction of Kashaka-Bubaare RGC Piped Water Supply Scheme -Phase II

The system was 100% complete and handed over to NWSC on 18<sup>th</sup> December 2020 for operation and maintenance, but still under DLP. The capacity of the system was increased from 60m<sup>3</sup> to 100m<sup>3</sup> with an additional reservoir tank. The sources are 2No Boreholes (BH) at Nshozi source BH with the yield of 15m<sup>3</sup>/h and Rwentondo source BH with the yield of 7.5m<sup>3</sup> /h. The Water supply system was operating well with no snags noticed at the time of monitoring in February 2021. It was an extension of Kashaka Phase I because the water was not enough to meet all the demand. Under Kashaka Phase II, only the 25 connections were done. These had unconnected during Phase I.



L-R: A Dosing Unit; 60m<sup>3</sup> Sump and Pump House in Bubaare Sub-county, Mbarara District



## Challenges

- Delayed payments to the contractor. There was a pending payment of certificate No.3 Ug shs 434,710,690.
- Land acquisition challenges at the source area in Rwentondo Village by the community. Some community members refused the passage of pipeline through their land.

## Recommendations

- The MFPED should disburse funds on a timely basis.
- The MWE should ensure timely acquisition of land where schemes are to be located. Compensation should be planned for land owners on pipeline passage that does not fall under the road reserve.

### ii) Construction of Lwemiyaga RGC Piped Water Supply and Sanitation Scheme– Sembabule District

The system serves Lwemiyaga and Kyeera Sub-counties and was at 76% physical progress in February 2021. Transmission laid was 1.978Km of the 2Km planned. All pipes were delivered and pipe laying was ongoing (76.7km of the planned 34.5Km). Twin tanks 100m<sup>3</sup> each was at completion levels. The Office block, Guard house, Pump house were at painting level; The Chlorine house superstructure brickwork commenced, the 100m<sup>3</sup> Sump was at finishes stage. The Household ecosan toilets were converted to institutional lined VIP latrine at a primary school, three institutional toilets were in the final stage and 308 connections out of 400 planned were already done.

## Implementation challenges

- Delayed payment of the contractor due to delayed disbursement of funds to WSDF-SW.
- Slow progress by the contractor due to delayed payments.

## Recommendation

- The MFPED should ensure timely disbursement of funds so that certificates are honored in time.



L-R: 100m<sup>3</sup> Twin waters tanks and water pumps in Lwemiyaga RGC Piped Water Supply and Sanitation Scheme Lwemiyaga Sub-county, Lwemiyaga District



## Challenges

- Limited financial resources since the sub-programme is only GoU funded with an annual allocation of only Ug shs 10.023bn to WSDF-SW.
- Access to land for project components for example in Kashaka-Bubaare; production boreholes, the reservoir tank and its access road, Buyamba reservoir and, and its access road, Lwemiyaga reservoir tank, and its access road, Igorora reservoir tank and its access road all had claims.

## Recommendation

- The MFPED should follow-up/fast-track completion of the external funding processes, and also increase the annual allocation of GoU funds to WSDF-SW.

## Conclusion

The two commissioned water supply systems and sanitation projects for Buyamba (in Rakai) and Kashaka-Bubaare (Mbarara district) serve a total of 58 villages (Buyamba: 24, Kashaka-Bubaare: 34), and a design population of 33,823 (Buyamba: 7227, Kashaka-Bubare: 26,596) who are benefiting from the two projects. The proposed budget for the sub-programme funding is Ug shs 264bn (proposed external fund is Ug shs 169bn). Current only GoU is funding it with an annual allocation of only Ug shs 10.023bn which is not enough.

### 3.2.2.5 South Western Cluster Project Sub-Programme

In an effort to comply with expectations of the Sustainable Development Goals (SDGs), NDP III, Vision 2040, and NRM Manifesto 2016-2021, NWSC's strategic focus for the period 2016-2021 is on infrastructure development in order to achieve 100% service coverage in urban areas and rural growth centers under NWSC jurisdiction. The project period is from July 2019 - June 2024.

The project objective is to improve the health, living standards and productivity of the population in the project areas, regardless of their social status or income, through equitable provision of adequate and good quality water supply and improved sanitation services at acceptable cost and on a sustainable basis.

The approved annual budget for the FY 2020/21 is Ug Shs 142.76bn, of which Ug Shs 11.41bn (7.99%) was released and spent by end of December 2020. The release performance was poor because the actual construction works that require huge finances had not yet commenced.

The sub-programme planned to award contracts, set up site, deliver materials and commence foundation works for Kagera water works, Mbarara water works, and Masaka water works. The performance was as presented hereafter:

### Physical Performance

By 31<sup>st</sup> December 2020, the contract to commence construction works was not yet awarded due to delayed completion of the final design reports and tender documents. Therefore, no works had commenced.





## Challenges

- Interruption of field investigations due to the COVID-19 pandemic leading to delayed completion of detailed designs by the consultants.
- Change of raw water source from boreholes to Lake Victoria, for the Masaka water works led to delayed completion of the detailed design report since the consultant had to undertake a detailed study of the raw water source on Lake Victoria.

## Recommendation

- The NWSC should fast track detailed design and the procurement process for the works.

### 3.2.2.6 Water and Sanitation Development Facility Central - Phase II Sub-Programme

Through the Water and Sanitation Development Facility (WSDF) framework, the Ministry of Water and Environment implements water supply and sanitation interventions in an effort to increase coverage in urban centers, with financing from different development partners. The WSDF-Central, which is responsible for 27 districts in the Central and Mid-western regions, received a total of 147 applications out of which only 50 were prioritised for implementation during WSSP I (2012-2017). To date 18 new towns and eight rehabilitated towns water systems have been implemented. With the current urbanisation trends, new urban centers have sprung up all of which require water supply and sanitation services. Between 2015 and 2016, 35 new Town Councils were gazetted (SPR 2017).

The sub-programme objective is to increase water supply service coverage and improve sanitation and hygiene services for STs/RGCs. The approved annual budget for the FY 2020/21 is Ug Shs 31.21bn, of which Ug Shs 16.62bn (106.3%) was released and Ug Shs 24.63bn (104.8%) spent by 31<sup>st</sup> December 2020. The higher expenditure than release is because of the funds carried over from previous FY which were given as the FY was winding up. The key planned outputs during the FY were: i) Sanitation services and hygiene improved in the implementation towns through trainings, monitoring and evaluation; ii) piped water supply systems constructed, and iii) sanitation facilities constructed. Findings are presented hereafter:

### Physical Performance

By 31<sup>st</sup> December 2020, selected community members and some key stakeholders were trained on sanitation and hygiene as regards their obligations on good environmental practices for example in Kakunyu-Kiyindi. Out of 14 town water supply systems planned to be completed, four were completed (Butenga-Kawoko, Kiwoko, Butalangu and Busiika), and the rest were at varying levels of progress. Fifteen systems out of 16 were under design, and 11 boreholes were drilled out of the 33 planned.

Construction of piped water supply systems continued in 11 towns of Butemba, Kyankwanzi (65%), Kasambya-Kikandwa (90%), Lwamata (91%), Bamunanika (95%), Kakunyu-Kiyindi (95%) and Kagadi (89%). Butenga-Kawoko (completed and undergoing test running). For sanitation facilities, design of two fecal sludge management facilities was planned, of which one was underway i.e. Buliisa Fecal Sludge Management Facility. Construction of other sanitation facilities for nine towns was ongoing at varying levels of progress: Butemba, Kyankwanzi (65%), Butenga-Kawoko (undergoing test running), Kasambya-Kikandwa (93%), Lwamata (91%), Bamunanika (95%), Kakunyu-Kiyindi (95%). Klorman unit installed for disinfection.

## Findings of schemes monitored

### i) Kikandwa-Kasambya Piped Water Supply System

The WSS was 100% complete with a payment status of the contract sum at 58%. The system serves 35 villages in Kasambya covering 21,266 people and five villages are served in Kikandwa covering 5,279 people. The system water sources (2) are in Kikandwa Village and Kikandwa town. The transmission mains of 4,500m were installed though 3,400m were planned due to change in pipe route. Distribution mains increased from 23,300 to 29,000 because of the increase in demand for water. A reservoir tank of 200m<sup>3</sup> on dwarf walls was constructed. Only 200 people were able to pay the subsidised fee for connection and the remaining connections were taken to Kasambya. A total of 20 institutional connections were done. The project constructed one public toilet in Kikandwa Town and another one at a school. All the furniture for the office, a colored printer, safe, photocopier and a desk top were supplied. A motor bike was supplied to easy operation of the system. Klorman unit was installed for disinfection of water.



L-R: A motorcycle supplied to the project; Solar panels and the pump house of Kikandwa WSS Kalwana Sub-County, Kasanda District

### ii) Kasambya Town Water Supply System

The system was 98% complete and has two borehole sources in Kamusenene and Kanyawawa villages. These sources were in the road reserve and swamp. A lot of fill and road diversion was done. Transmission mains of 8,017m were laid of the 8,000m planned. One steel tank of 200m<sup>3</sup> on dwarf walls in Kingishu village, 1 steel tank of 100m<sup>3</sup> on a steel tower of 15m high were installed. A 100m<sup>3</sup> concrete sump was constructed in Kamusesene village. About 1,000 people were verified but 600 people paid within the stated time to be connected yet there was a balance of 100 connections from Kikandwa. The project has 10 PSPs, and 30 institutional connections. The contractor was paid only 58% of the contract sum.



L-R: A six stance Toilet at the market and a steel tank of 200m<sup>3</sup> on dwarf walls in Kigishu village, Kasambya Town Council



## Conclusion

The project is substantially complete but during implementation had issues which were resolved to a greater extent. These included the land at the project sites, borehole casing, delays or nonpayment of subsidised fee for connection, additional demands during implementation which was not part of the design. All the sites were in swamps so they required too much filling, and it was done. The boreholes in Kasambya were drilled in the road which had to be diverted. So the system was complete and under test running. Arrangements for power surge were ongoing as the WSS awaited commissioning.

### iii) Kakunyu-Kiyindi Piped Water Supply

The system was 95% complete by February 2021. About 7,228m of transmission main were laid out of the planned 8,780m. The distribution mains achieved were 66,643m of the planned 64,800m due to increased demand. A concrete reservoir (twin tank of 200m<sup>3</sup>) tank and one of the 100M<sup>3</sup> tank (BPTs/SUMP) were constructed. Mobilisation for 1000-yard tap connections was ongoing and only 500 were connected. The system has 30 PSPs, 20 institutional yard taps and one public toilet at Kiyindi market and another one at a school.



L-R: A twin tank of 200m<sup>3</sup> concrete and a water borne toilet with an incinerator at a market in Kiyindi, Kihindi Town Council, Buikwe District

## Implementation challenges

- The COVID-19 related issues affected movement of both staff and materials to sites.
- Water levels along the lake shores rose after the project initiation and the site area had to be extended a few meters away from the submerged land.
- Poverty leading to delays or nonpayment of the subsidised connection fee during project implementation.
- Additional demands during implementation which were not part of the original design.
- The rocky site for office and tanks increased costs for the contractor during construction.
- Issues related to way leaves leading to compensations and change in location of some project components in the UNRA road reserves.



## Recommendations

- Ongoing and future projects should adopt the COVID-19 standard operating procedures (SOPs) and continue operating to avoid time losses.
- The MWE should ensure easy access to more material requirements when need arises since the people claimed to be poor. So as the project undergoes the Defects Liability Period, more connections can be made.
- The clear way leaves should be cleared before projects initiation.

## Challenges

- The COVID-19 restrictions delayed implementation of several activities, and scaled down the rate of implementation of construction works.
- Limited counterpart funding leading to accumulated value added tax (VAT) arrears against invoices presented before July 2017 when the policy was changed. By 31st December 2020 the arrears were Ug shs 4,593, 502,035. In only FY 2021 it was Ug shs 1,669,672,921. The 61 public and institutional water borne toilets could not be realised in the small towns due to the same reason.
- Incomplete land acquisition due to lengthy land valuation processes, deviation from agreed positions by land owners, absentee landlords, and inability of LGs to compensate land owners. Some of these have led to threats of litigation.
- Theft of newly installed fittings and GI pipelines especially in town water supply systems near Kampala. A case in point was the Kiwoko Butalangu Piped Water Supply System.
- Inadequate water resources in some schemes particularly Kabembe Kalagi, Zigoti, Busiika, Namulonge and Kiwenda.
- Failure to establish and sustain the tree nurseries in project towns. Out of the planned 15, only four were established because of the unsuitable environment conditions in target towns, particularly lack of water for irrigation, lack of adequate land and market for seedlings in the targeted community and also limited financing.
- Mobilisation activities became costly and the big crowd approach (meetings, trainings, drama shows) was affected by COVID-19 restriction guidelines.
- Delayed procurement of surveying consultant delayed land valuation and payment and titling processes because it started late given the challenges involved.

### 3.2.2.7 Water and Sanitation Development Facility North - Phase II Sub-Programme

The Northern region of Uganda still lags behind overall sector targets. While the region has received a lot of support in the past, the population growth rate has remained way higher than the level of investments. There are still many centers that rely on point water sources most of which were constructed during insurgency rather than on piped water supply schemes being the standard for Urban Centers and RGCs and key for socio-economic development of urban and rural settlements.

The objective of the project is to improve the socio-economic situation and the opportunities for people living in the Small Towns (STs) and Rural Growth Centers (RGCs) through provision of safe, adequate, reliable, sustainable and accessible water supply and promotion of improved practices of hygiene and sanitation.



The approved annual budget for the FY 2020/21 is Ug Shs 28.90bn, of which Ug Shs 13.16bn (45.54%) was released and Ug Shs 8.68bn (65.96% of the release) spent by end of December 2020. The release was good, while expenditure was fair. The key planned outputs during the FY were: Backup support for operation and maintenance of piped water systems; Sanitation services and hygiene improved in the implementation towns; piped water supply systems constructed; and sanitation facilities constructed. The findings are presented hereafter:

### Physical Performance

By 31<sup>st</sup> December 2020, the operation and maintenance structures/committees were established for two facilities (Moyo Town Council WSS and Padibe Town Council WSS) out of the five planned. Radio spot messages were aired in Padibe Town Council aimed at improving hygiene and sanitation practices. Establishment of O&M structures for piped water supply systems in the towns of Moyo and Padibe TCs were completed. Renovation of WSDP-N Office in Lira was ongoing. Out of 10 WSS planned for construction, only two were ongoing at Moyo Town Council (85%) and Padibe Town Council (65%). Out of eight towns sanitation facilities planned, only two were ongoing i.e. Moyo and Padibe TCs. The fecal sludge management facility planned in Yumbe District was under design.

### Findings of monitored scheme

#### Padibe Town Council Piped Water Supply System and Sanitation Facilities in Lamwo District

The system progress was at 65% and it is planned to serve Padibe Town Council including the Parishes of Atwol, Mura, Gangdyang, Kamama, Kuluyee Abakadyak. Works were ongoing for the transmission mains and 2.25Km was laid for distribution mains 20Km were done out of planned 22Km. One reservoir tank, 30 connections of the 430 planned and 20 yard taps of the 400 planned were done; one PSP out of the five planned; two out of 25 planned institutional and one of the five institutional toilets were constructed. One public water borne toilet of 13 stances and seven institutional lined VIP latrines of 40 stances were under construction.



L-R: A twin tank of 200m<sup>3</sup> concrete and a water borne toilet with an incinerator at a market in Kiyindi, Kihindi Town Council, Buikwe District

### Challenges

- Limited budget to cater for counterpart financing which makes the debt accumulate.
- Delay at the start of the project due to the lockdown measures of the COVID-19 pandemic.
- Delay in acquisition of land due to several claims of land ownership and varying compensation expectations.



## Recommendation

The MWE should continuously engage land owners together with the District and Town Council/Local Government before project commencement.

## Overall Performance

Table 3.4 provides a summary of the programme performance. The overall physical performance was very good at 99.7%. Most of the planned outputs were achieved given the level of resources provide. Some systems were completed and these included Kikandwa-Kasambya Piped Water Supply System, Kashaka-Bubaare RGC Piped Water Supply Scheme -Phase II and Kahama II piped water supply system. Table 3.4 summarises the Urban Water Supply and Sanitation Programme.

**Table 3.4: Performance of the Urban Water Supply and Sanitation Programme by December 2020**

Outputs	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target (%)	Cum. Achieved Quantity (%)	Weighted Score (%)
Administration and Management Support	5,690,189,815	2,196,964,000	100.00	70.83	1.01
Policies, Plans, standards and regulations developed	836,600,000	223,150,000	100.00	68.00	0.15
Backup support for Operation and Maintenance	583,775,000	241,068,750	100.00	51.50	0.10
Improved sanitation services and hygiene	1,745,000,000	985,675,000	100.00	35.93	0.20
Monitoring, Supervision, Capacity building for Urban Authorities and Private Operators	2,669,300,000	958,400,000	100.00	63.33	0.47
Acquisition of Land by Government	920,000,000	610,000,000	100.00	42.40	0.10
Government Buildings and Administrative Infrastructure	1,200,000,000	425,000,000	100.00	55.00	0.21
Purchase of Office and ICT Equipment, including Software	130,000,000	55,000,000	100.00	73.33	0.02
Purchase of Specialized Machinery & Equipment	100,000,000	25,000,000	100.00	100.00	0.02



Outputs	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target (%)	Cum. Achieved Quantity (%)	Weighted Score (%)
Purchase of Office and Residential Furniture and Fittings	200,101,830	50,025,000	100.00	72.50	0.04
Construction of Piped Water Supply Systems	545,481,328,342	110,159,700,000	100.00	27.79	96.62
Energy installation for pumped water supply schemes	60,000,000	15,000,000	100.00	20.00	0.01
Construction of Sanitation Facilities	4,961,230,000	1,924,029,000	100.00	34.33	0.78
<b>Programme Performance ( Outputs)</b>					<b>99.7 (Very good performance)</b>

Source: MWE and Field findings

### Key programme challenge

Limited budget to cater for the counterpart financing of the sub-programme thus causing a funding gap.

### Conclusion

The programme performance was very good at 99% simply because they were able to achieve the targeted outputs by 31<sup>st</sup> December 2020. The programme constructed piped water supply systems and despite COVID-19 most projects were on track as planned. These will provide water to all people in the supply area, both male and female. The sanitation facilities constructed in public places take into account the disabled persons and provide stances that are friendly to them. An incinerator was introduced on the sanitation facility which is good innovation. Pro-poor interventions such as public stand posts (PSPs) and kiosks were constructed in strategic places to ensure that those unable to have a yard tap in their homes can access water from them at a lower rate. During formation of water user committees, both males and females are instituted in the committees. All community engagements are carried ensuring participation of all gender and also sensitization of gender and equity issues is carried out.

### Recommendations

- The MWE should try to observe COVID-19 SOPs at construction sites.
- The MWE should continuously engage land owners in collaboration with LGs together with the Chief Government Valuer's office.
- The MWE should continuous engage MFPED to ensure realisation of full budget releases.



### 3.2.3 Water for Production Programme

This programme is mandated to develop and promote development and construction of water for production facilities as a driver for socio-economic development, modernise agriculture as well as mitigate effects of climate change. The programme objective is to provide and ensure functionality of multi-purpose water for production facilities in order to enhance production and productivity thereby contributing to socio-economic transformation as well as mitigation of the effects of climate change and disaster risks.

In FY 2020/21, the approved budget of the programme is Ug Shs 213.57bn, of which Ug Shs 67.80bn (31.7%) was released and Ug Shs 66.22bn (97.7%) spent by 31<sup>st</sup> December 2020. The release performance was poor, while expenditure was very good. The WfP programme is implementing seven development sub-programmes in the FY, of which two sub-programmes namely: Water for Production Regional Centre West, and Water for Production phase II were monitored. Findings are presented hereafter:

#### 3.2.3.1 Water for Production Regional Center-West Sub-Programme

The Water for Production Regional Centre West (WfPRC-W) is one of the decentralised regional centres of MWE with offices located in Mbarara District. Its function is to closely supervise ongoing donor and GoU funded projects, design new projects in close consultation with beneficiary districts and communities and offer immediate backup technical assistance to districts and beneficiary communities in use of water to enhance production in the lower central and Western Uganda. The key expected outputs are to construct irrigation schemes (acreage of land under irrigation), valley tanks and earth dams (cumulative increment in storage capacity), form/revitalize water user committees or associations on water for production facilities. The project period is 1<sup>st</sup> July 2016 to 30<sup>th</sup> June 2021.

The overall development objective is to improve the quality of life of the population through provision of water for productive use in livestock, aquaculture and mitigate effects of climate change through modern irrigation technology.

The annual approved budget is Ug Shs 27.85bn, of which Ug Shs 17.96bn (64.49%) was released and all spent by 31<sup>st</sup> December 2020.

The key planned outputs included: Activities supervised and monitored; Sustainable water for production management systems established; and Water surface reservoirs constructed.

#### Physical Performance

By 31<sup>st</sup> December 2020, the following were achieved: Works were ongoing for construction of 23 small scale irrigation schemes in the various districts. Design of five irrigation schemes was finalised. Construction of four valley tanks in the districts of Kibaale, Kiruhura/Kazo, Isingiro and Sembabule was at 80% progress. All earthworks were completed and construction of civil works ongoing. The design of the 15 small scale irrigation schemes was ongoing. Procurement of a contractor for the construction and management of Kyenshama earth dam in Mbarara District was in progress. A consultant had submitted a draft design report for the design of Rushozi earth dam in Mbarara District. A consultant was undertaking services for support for sustainable management of WfP facilities in Western and Lower Central regions. Success stories, lessons and emerging issues at established selected WfP facilities were documented in the Western region and produced.





## Findings of schemes monitored

### i) Kyamate Small Scale Irrigation Scheme in Ntungamo District

The target area is Kyamate in East ward, Ntungamo Municipality. All the land for the proposed project site belongs to Kyamate Church of Uganda. The church has over 50Ha of land and wishes to irrigate part of this land for production of vegetables and fruits, coffee and bananas. The proposed water source was Kyamate swamp with the potential to serve the project water demand.

By February 2021, some of the completed works include: Construction of the store and office block which has three rooms, two of which are storage rooms while the third one was to work as the project office. Installation of transmission line, construction of the security and pump control block; installation of the fence and gate; a 60m<sup>3</sup> reservoir tank, an abstraction system and 20 acres of land were installed with a distribution network.

### Implementation Challenges

- The COVID-19 pandemic greatly affected the work progress in aspects of time scope.
- Some suppliers delayed supplies and this delayed work progress.



Store and office block



Electro mechanical installation at the pump house

### ii) The Mabira small Scale Irrigation Scheme

The WfPRC-W identified potential farmers to utilise the constructed Mabira dam for the system to operate. The construction works included: pit latrine at the irrigation site, the road through irrigation, culverts, the main gate land clearing and preparation, fencing of the irrigation area and creation of a drainage channel. A total of 15 acres where two acres of drip and 13 acres of sprinkler were installed and pipe network of about 50 acres owned by different famers. The 12 sprinkler acres are on one person's land who offered it to the community for five years without paying and thereafter the landowner will charge what was called a certain affordable fee. Some of the crops that were grown include tomatoes, cabbage, watermelon, avocado, eggplants, carrots, cucumber, and green pepper as demonstrated in the photos.



L-R: A garden of green paper and a seed bed in green house for seedlings in Mabira SSI Scheme, in Rwanyamahembe, Sub-county, Mbarara District

### 3.3.4.2 Water for Production Phase II Sub-Programme

The demand for water for production has continued to rise on account of the increasing population pressure. As effects of climate change continue to escalate, the available water resource for agricultural production is constantly decreasing. Provision of water for production is therefore one of the responses to the adverse effects of climate change in the agricultural sector.

The objective of this sub programme is to develop and promote development and utilization of water for production facilities as a driver for socio-economic development, modernize agriculture as well as mitigate effects of climate change. The sub programme period is July 2019 to June 2024.

The annual approved budget is Ug Shs 24.78bn, of which Ug Shs 12.59bn (50.81%) was released and Ug Shs 12.28bn (97.54% of the release) spent by 31<sup>st</sup> December 2020. The release performance was fair, whereas the expenditure was very good.

The key planned outputs included: Activities supervised and monitored; Sustainable water for production management systems established; Specialised machinery and equipment purchased; Bulk water supply schemes constructed; and Water surface reservoirs constructed.

#### Physical Performance

The contract for construction of Nakayonza Livestock Watering Facility in Nakasongola District was awarded and awaiting clearance from the Solicitor General (SG); Supervised and monitored construction of Rwengaju Model Village Irrigation Scheme in Kabarole District and works were at substantial completion. Kawumu Irrigation Scheme in Luweero District was designed and at 50% progress. Feasibility studies were at different levels: Rwimi Mega Irrigation Scheme in Kabarole and Kasese districts was at 50% progress. Bulk water systems and irrigation schemes of Lumbuye in Luuka/Kaliro districts and Nyabanja in Tororo District were at 50%; Purongo Irrigation Scheme in Amuru District was at 50% and Palyec in Nwoya District at 75%. Lopei Bulk Water System was at 75%, and Irrigation Scheme in Napak District, Kagera corridor multi-purpose water for production infrastructure and facilities at 60%. A consultancy contract was signed for Nakasongola Bulk Water Transfer System in Nakasongola District. Progress of works was derailed by the COVID-19 restrictions. Formulation of a National Irrigation Master Plan for Uganda was at 40%. Preparation of design manual for Water for Production infrastructure was at 45% progress.



## Findings of schemes monitored

### Rwengaju Model Village Irrigation Schemes in Kabarole District

The Rwengaju Irrigation Scheme had a contract variation of Ug shs 4,073,452,930 from original contract of Ug shs 27,301,186,392 to revised contract of Ug shs 31,374,639,322. The reason for this was: i) lack of availability of steel pipes thus adopting the usage of Glass Fiber Reinforced plastic pipes (GRP) as an alternative for Steel pipes DN 350 mm, PN 16 and Steel pipes DN 350 mm PN 25. ii) Design Modification of the Weir - Construction of gabion boxes to form a raft on which the foundation for the weir could be constructed. iii) Construction of additional storage tank of 750m<sup>3</sup> capacity at the source. This was a 24 months' contract with an eight-month extension.

The scheme was monitored and found substantially complete. It was operational and benefitted both individual famers and institutions who were using the water. It provided water for cattle, poultry and irrigation for vegetables in homes and institutions. The system was operated by a private operator contracted by the MWE for one year as the setup of the proper scheme management system takes shape.



L-R: The 700m<sup>3</sup> reservoir tank in Kazingo Village, Rwengaju Irrigation Scheme and an egg plants' garden in Bukuku Sub-county, Kabarole District

### Challenges

- Vandalism of the HDPE pipe connections has caused losses to the contractor.
- Some community members have connected themselves to the system causing inefficiency and leakages.

### Recommendation

The MWE should carryout intensive sensitisation of the project benefits to the communities in order to minimise their interference before implementation of the scheme.

### Overall Performance

The programme performance was poor at 56%. Key achievements by 31<sup>st</sup> December 2020 included: Completion of Rwengaju Irrigation Scheme. The catchment management for Kyenshama earth dam in Mbarara District was under procurement; construction of four valley tanks in the districts of Kibaale, Kiruhura/Kazo, Isingiro and Sembabule was at 80% progress. Design of five irrigation schemes was finalised, while that of the 15 small scale irrigation schemes was ongoing. The consultant had submitted a draft design report for Rushozi earth dam in Mbarara District. Works were ongoing for construction



of 23 small scale irrigation schemes in the different districts. Land consent forms were signed for all the completed and ongoing projects. Land was acquired and compensated for. However, the planned design and feasibility studies of various system was not achieved. The major hindrance included delayed procurement, non-release of funds for different outputs, the COVID-19 which affected inflow of consultants and materials. Table 3.5 gives a summary of the Water for Production performance.

**Table 3.5: Performance of Water for Production Programme by December 2020**

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target %	Cum. Achieved Quantity %	Weighted Score (%)
Supervision and monitoring of WfP activities	2,117,467,000	970,071,239	100	45.00	3.95
Administration and Management Support	2,303,709,000	1,101,233,213	100	45.00	4.12
Sustainable Water for Production management systems established	4,751,248,000	3,064,894,159	100	26.85	3.76
Acquisition of Land by Government	234,000,000	117,000,000	100	40.00	0.36
Purchase of Office and ICT Equipment, including Software	315,000,000	78,750,000	100	55.00	0.60
Purchase of Specialized Machinery & Equipment	3,813,520,000	3,081,760,000	100	68.75	6.16
Purchase of Office and Residential Furniture and Fittings	100,000,000	25,000,000	100	100.00	0.19
Construction of Bulk Water Supply Schemes	14,749,541,000	6,134,409,088	100	51.70	28.02
Construction of Water Surface Reservoirs	24,248,114,000	15,977,700,000	100	12.61	8.81
<b>Programme Performance ( Outputs)</b>					<b>56 (Fair Performance)</b>

Source: MWE and Field findings

### Key challenges

- Limited financial resources compared to the demand.
- Land availability for construction of WfP facilities. In some instances, land owners exaggerated the rates for compensation compared to the Chief Government Valuer's rates.
- The COVID-19 restrictions as the foreign experts were unable to fly into the country thus hindering the progress of works like feasibility studies done foreign firms.

### Conclusion

The programme performance at half year was poor at 56%. Some of the outputs like acquisition of land in Wakiso District for parking of WfP construction equipment were ongoing. The COVID-19 restrictions derailed some works where the international experts were unable to fly into the Country for field activities. The delay in verification of NSSF, the electricity bills, and survey for compensation of the land for irrigation network for the proposed Kabuyanda Irrigation Scheme in Isingiro District affected performance too. For the programme to act as a driver for socio-economic development, modernisation of agriculture as well as mitigate effects of climate change, it may require more planning and resource inputs.



## Recommendations

- The MFPED should increase the budget ceiling to the programme and avail resources upfront for design of projects.
- Government should review procedures and methods used in land valuation to reduce the delays.

### 3.2.4 Natural Resources Management Programme

This programme is responsible for promotion of efficient use and management of environment and natural resources for sustainable development. The programme objective is to coordinate rational and sustainable utilization, development and effective management of environment and natural resources for socio-economic development of the country.

In FY 2020/21, the approved budget of the programme is Ug Shs 124.53bn, of which Ug Shs 41.94bn (33.7%) was released and Ug Shs 39.46bn (94.1% of the release) was spent by 31<sup>st</sup> December 2020. The release performance was fair while expenditure was very good. Four development sub-programmes were being implemented of which three sub-programmes were monitored: i) The Farm Income Enhancement and Forestry Conservation Project Phase II - FIEFOC II; ii) Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda; and iii) Natural Wetlands Restoration Project. The findings are presented hereafter:

#### 3.2.4.1 Farm Income Enhancement and Forestry Conservation Project Phase II - FIEFOC II Sub-Programme

The FIEFOC II sub-programme seeks to consolidate and expand achievements of FIEFOC I that was completed in December 2012, and to address gaps through the development of irrigation schemes and Integrated Natural Resources Management. The FIEFOC II has a five-year implementation period (1<sup>st</sup> July 2016 to 30<sup>th</sup> June 2021) with five large irrigation schemes of Tochi in Oyam District, Mobuku II in Kasese District, Doho II in Butaleja District, Ngenge in Kween District and Wadelai in Pakwach District under the Agricultural Infrastructure Development Component. The main objective of the sub-programme is to improve household income, food security and climate resilience through sustainable natural resources management and agricultural enterprises development.

The annual approved budget in FY 2020/21, was Ug shs 111,249,503,000, of which Ug shs 38,297,305,800 (34.4%) was released and Ug shs 34,370,247,000 (89.74% of the release) spent by 31<sup>st</sup> December 2020. The release performance was fair and the expenditure performance was good.

The key planned outputs in FY 2020/21 included: i) Knowledge of environment and natural resources promoted through production of e-newsletters, radio talk shows and awareness creation to farmers; ii) Degraded ecosystems restored and protected through restoration of farmlands and wetlands; iii) Capacity building and technical backstopping to farmers in climate smart agriculture, agribusiness skills, seedling production; and iv) Rehabilitation and construction of irrigation schemes (Agoro in Lamwo District, Tochi in Oyam District, Mobuku in Kasese District, Ngenge in Kween District, Doho II in Butaleja District, and Wadelai in Pakwach District. Other schemes are Unyama in Pabbo District, Namalu in Nakapiripirit District, Siipi in Bulambuli District, and Namatala in Budaka District). The 96 small scale irrigation schemes constructed.



## Physical Performance

The progress of works at the five gravity fed irrigation schemes against planned target stood as follows; Tochi (Oyam District) – 95% against 100%, Ngenge (Kween District) – 100% against 100%, Doho – II (Butaleja District) - 95% against 100%, Mubuku–II (Kasese District) - 95% against 100% and Wadelai (Pakwach/Nebbi) - 68% against 77%. Cumulatively up to 8.7 million assorted tree seedlings have been distributed and restored about 8,804ha of degraded hotspots and 242.3Kms of riverbanks in the 5 catchments. Land for PAPs in Unyama (Pabbo), Siipi (Bulambuli) Namalu (Nakapiripirit) and Namatala in Mbale and Budaka compensated. Farmer Based Institutional Management Organisations for the 96 small scale irrigation schemes established. For sustainable management of Mubuku II, Doho II, Tochi and Ngenge Irrigation Schemes four out five Farmer Based Management Organisations/Water User Associations (FBMOs/WUAs) were established. Capacity building for the farmers within these schemes was ongoing. The process of establishment of the FBMOs/WUAs for Wadelai Irrigation Scheme was also ongoing.

### Findings of schemes monitored

#### i) Mubuku II Irrigation Scheme in Kasese District and Tochi in Oyam District

Both schemes were at 95% in February 2021. All construction works were completed. Establishment of Farmer Based Management Organisations/Water User Associations (FBMOs/WUAs) for sustainable management of the irrigation schemes were done. Capacity building for the farmers within the schemes was ongoing. A private operator for each scheme was temporarily contracted for one year as the sustainable management systems were fully established. The schemes were in the DLP waiting for commissioning. The farmer trainings in aquaculture and horticultural/seedling production value chain systems enhancement, agribusiness skills, commodity bulking and collective marketing, climate smart agriculture were slowed down by COVID-19.



L-R: The Weirs for Mubuku Irrigation Scheme in Kasese District and Tochi Irrigation Scheme in Oyam District



**L-R: Ongoing sheltering of the gate valves in Tochi Irrigation Scheme, Oyam District and a Division Box and Gate Valves for both Secondary and Tertiary Canals at Mubuku Irrigation Scheme in Kasese District**

### Implementation challenges

- The COVID-19 restrictions and lockdown which hampered training of farmers, caused limited supervision of consultants and delays in completion of the profiling and mapping of beneficiaries in the schemes. This may result in extensions of consultant contracts.
- The formation of IWUC and Famer Field School for part of Mubuku II command area comprising 102Ha stalled due to a pending decision by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) on modalities for use of the farmland. This will pave way for the district guided selection and allocation of plots to prospective farmers who expressed interest and applied.
- Flooding of rivers (Nyamwamba in Mubuku, Tochi and Ngenge) caused extra works and some delays.
- Delays in the procurement for the meteorological stations, earth moving equipment, small hand tools and equipment.
- Delays in procurement of goods, works and services categorised as micro and macro procurements, slow processing of funds, delays in accountability and reporting.

### Recommendations

- The MWE should ensure that contractors focus on equipment-based operations like earthworks that minimise congregation of workers. A slowdown in works can be minimised through intensified contract management and supervision geared towards increased site work productivity and efficiency to achieve completion of works within reasonable period.
- The contractors should update works' schedules, programs profiling, and prioritising elements to minimise the effects of unfavorable weather conditions on site works in order to ensure continuity of works and thus timely completion.
- The MWE should expedite the procurement process to ensure contracts are awarded within the shortest time possible. Also fast-track the procurement for approvals/clearance by the Contracts Committee, Solicitor General and No-objection letter from the Bank for contract signing.
- The MWE should review and resolve the underlying issues in Mubuku-II on the modalities for utilisation and allocation of land for irrigation.



### 3.2.4.2 Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda Sub-Programme

Wetlands are highly vulnerable to changes in the quantity and quality of their water supply. Climate change will most likely substantially alter ecologically important attributes of wetlands and will intensify the impacts from human activity. The loss of wetlands could exacerbate the impact of climate change as they provide fundamental services that contribute to mitigation of such impacts. This project focuses on supporting communities that are dependent on the wetlands in the targeted areas to introduce new livelihood practices and business opportunities that would use wetland resources sustainably. The sub-programme objectives are: to restore wetland hydrology and associated catchment; to promote improved agricultural practices and alternative livelihood options in areas surrounding wetlands; and to help farmers to access climate information. The period of implementation is from July 2018 to June 2023.

The annual approved budget in FY 2020/21, was Ug Shs 4,267,554,436, of which Ug Shs 2,649,984,800 (62.1%) was released and Ug Shs 2,413,642,511 (91.1% of the release) spent by 31<sup>st</sup> December 2020. The release and expenditure performances were very good.

The key planned outputs in FY 2020/21 included: i) Knowledge of environment and natural resources promoted through linking five districts to the National Wetlands Information System, cancellation of titles in wetlands in Mukono district, producing wetland maps for 33 districts; ii) Degraded ecosystems restored and protected through construction of infiltration facilities, restoration of wetlands across the country, demarcation of wetland boundaries, demarcation of 25km along river Nile; iii) Capacity building and technical backstopping provided, Monitoring, inspection and supervision conducted through training of district officers.

#### Physical Performance

A communication strategy for the cancellation of titles in wetlands was developed to guide sensitisation on this exercise. A total of 59 wetland maps were produced on request. Wetland maps for enforcement, monitoring, information, compliance assistance and clients were produced. The nine soil and water storage and retention facilities were constructed to enhance infiltration in wetland systems in Western Uganda (Rufuha wetland in Ntungamo and Kabanyonyi wetland in Kabale) and Eastern Uganda (Agu Wetland in Ngora, Nyakambu wetland and Papaya Wetland in Pallisa). About 436□Km of critical wetlands boundaries were assessed, surveyed and marked with pillars in different districts. The 11 EIAs and project briefs on proposed development in or near wetland were reviewed and evaluated for compliance in the areas. A total of 50 staff from newly created DLGs were trained in specialised wetland management.

#### Field findings

The project aims at Enhancing Resilience of Communities to Climate Change through Catchment Based Integrated Management of Water and Related Resources in Uganda (EURECCCA Project). In Ntungamo District, EURECCCA project was implemented on restoration of Rufuuha wetland in Rweikiniro Sub-county and Kabasheshe Wetland in Kayonza Sub-county. Soil and water storage and retention facilities were constructed to enhance infiltration in wetland systems in Western Uganda (Rufuha wetland in Ntungamo and Kabanyonyi wetland in Kabale). A community gender responsive wetland managements for Rufuuha Wetland in Ntungamo District was developed. The management plan is to guide wetland wise use practices.

For proper management of Kabasheshe wetland, demarcation of the wetland and its associated boundaries was carried out in Kabasheshe Parish, Kayonza Sub-county. The mode of boundary demarcation was using





both agreed and ecological boundaries. The community members, LG authorities made the boundary assessment when the original ecological boundary was not welcomed by the community members and thus pillar planting was done. During demarcation it was observed that Kabasheshe wetland was degraded with agricultural activities, creation of settlements, sand mining, and brick making. There were communal conflicts over wetland resources and this was caused by creation of plots in the wetland for example in Mugaga village. The community members pledged to maintain, manage and conserve the demarcated Kabasheshe Wetland.

### Challenges of implementation

- Resistance of communities to the ecological activities and demarcations in the wetland e.g. bee keeping, fish farming was resisted by the communities.
- Working in groups was a challenging situation since people come as individuals with different plans and operation motives.
- The community blocked access to Rwekiniro wetland thus materials like thatching grass from the wetland could not easily be fetched.
- Staffing gaps in the Environment and Natural Resources Department. Only three out of nine substantive staff were in office making it difficult to work effectively.
- Inadequate means of transport for staff to carry out their duties. There is only one motorcycle at the office.

### Overall performance

The Natural Resources Management performance was good at 78%. The large irrigation schemes visited in Mubuku II, Tochi and some small scale irrigation schemes like Mabira were substantially complete by February 2021. A total of 3,125 farmers trained in Irrigated Agronomy, 2,500 in Agribusiness Skills, 2,500 in Climate Smart Agriculture, and 3,000 in financial accessibility and management. Table 3.6 summarises the programme performance.

**Table 3.6: Performance of Natural Resources Management Programme by 31<sup>st</sup> December 2020**

Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target %	Cum. Achieved Quantity %	Weighted Score (%)
Promotion of Knowledge of Environment and Natural Resources	3,126,554,000	460,008,000	100	28.50	2.71
Restoration of degraded and Protection of ecosystems	2,077,554,436	1,003,484,800	100	13.34	0.50
Policy, Planning, Legal and Institutional Framework.	5,787,051,000	1,368,315,000	100	28.65	5.01
Coordination, Monitoring, Inspection, Mobilization and Supervision.	8,901,142,000	1,731,127,000	100	16.40	6.49
Capacity building and Technical back-stopping.	14,989,611,000	7,456,682,000	100	25.25	6.58



Output	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target %	Cum. Achieved Quantity %	Weighted Score (%)
Administration and Management Support	4,689,456,000	1,132,001,000	100	46.40	4.06
Operational support to private institutions	1,215,000,000	1,215,000,000	100	15.00	0.16
Government Buildings and Administrative Infrastructure	46,825,342,000	20,794,164,000	100	31.00	28.28
Purchase of Office and ICT Equipment, including Software	196,000,000	49,000,000	100	15.00	0.10
Purchase of Specialized Machinery & Equipment	17,811,446,000	226,500,000	100	5.00	15.41
Purchase of Office and Residential Furniture and Fittings	41,999,000	5,000,000	100	0.00	0.00
Acquisition of Other Capital Assets	9,919,316,000	2,303,995,002	100	25.00	8.58
<b>Programme Performance ( Outputs)</b>					<b>78 (Good Performance)</b>

*Source: MWE and Field Findings*

### Key programme challenges

- Continued environmental degradation and declining ecosystems integrity is evident despite strong environmental policy and accompanying laws and regulations.
- Political interference by Lower Local Governments. There is resistance from illegal occupants in wetlands who are mobilised by the lower political leaders against officials from my Ministry and other agencies. This has delayed the completion of restoring Kyetinda in Makindye and Namiro wetland in Entebbe Municipality.
- Inadequate funding provided for the evictions and restoration of wetlands across the country. The process for evicting and restoring the fragile ecosystem is a long, which requires funds to educate and mobilise the stakeholders, undertake detailed assessment to validate the affected ecosystem and the household to be evicted as well as the physical restoration with equipment and labor including settling the genuine affected households.

### Conclusion

Programme performance was good at 78%. The Natural Resources Programme aims at restoration and maintenance of the integrity and functionality of degraded fragile ecosystems, increase the sustainable use of Environment and Natural Resources and increase wetland coverage and reduce wetland degradation. In 1994, wetland coverage on the surface area of Uganda was 15.6% and currently at 8.9%. De-forestation led to decline of forest cover from 24% and now stands at 12.4. In order to protect, restore and maintain the integrity of degraded fragile ecosystems there is need for prioritisation of these measures in planning/ budgeting and nondiscriminatory application of laws e.g. evictions, cancellation titles and improved stakeholder collaborations.



## Recommendations

- The MWE should continue sensitising and engaging stakeholders on sustainable environmental management
- The MWE should continuously lobby and mobilise resources both within government and development partners, to increase funding to wetlands management and ENR as a whole.

## Gender Analysis

The sub-programme has developed a gender responsive community-based wetland management plan; a gender responsive resource user guideline and a grievance redress manual, to guide users in sustainable wetlands management. The programme has trained different groups and individuals in sustainable land management like crop diversification and resilient agricultural practices. The staff were trained in use of data analysis software (Python, CDO, GRADs), data processing and analysis. ENABLE Youth Concept, specifically empowers women and youth, in various capacities such as financial management and accessibility and thus 103 youth and women agro-entrepreneurs from respective districts: Kasese (20), Butaleja (16), Kween (26), Tochi (24) and Wadelai (17) were skilled and supported with Ug shs 2.523bn.

### 3.3 National Environment Management Authority

The National Environment Management Authority's (NEMA) mission is to promote and ensure sound environment management practices for sustainable development. The strategic objective is: 'an efficient agency, with people in Uganda living in a clean, healthy, productive and sustainable environment'.

The NEMA's approved budget in FY 2020/21 is Ug shs 25,555,655,669. By 31<sup>st</sup> December 2020, Ug shs 9,089,882,323 (35.57%) was released, of which Ug Shs 8,704,976,854 (95.77%) was spent. The release performance was poor, whereas the expenditure was very good. The unspent balance amounting to Ug shs 384,905,469 was due to unpaid wages of vacant positions such as Finance Manager, Principal Environment Inspector and Senior Environment Inspector; unpaid NSSF contributions of the unfilled positions, insurance, unpaid rent of regional offices and allowances for travel inland.

In FY 2020/21, the NEMA implemented its outputs through one programme - Environmental Management, which constitutes of two sub-programmes: i) Administration, and ii) Retooling of National Environment Management Authority. An assessment of the programme and sub-programmes was undertaken to find out their semi-annual performance. The findings are as follows:

#### 3.3.1 Environmental Management Programme

The programme objective is "To promote and ensure sound environment management and prudent use of environment and natural resources in Uganda for improved livelihoods and betterment of all women and men".

The financial performance of the programme is the same as that of NEMA (above) since the authority implements only one programme. The release performance was poor, whereas the expenditure was very good.



### 3.3.1.1 Administration Sub-Programme

The sub-programme objective is to “Ensure that male and female people in Uganda live in a clean, healthy, productive and sustainable environment”.

The approved budget of the Administration sub-programme in FY 2020/21 is Ug shs 24.57bn. By 31<sup>st</sup> December 2020, Ug shs 8.81bn (35.9%) was released, of which Ug Shs 8.50bn (96.5%) was spent. The release performance was poor, whereas the expenditure was very good.

The sub-programme planned outputs in FY 2020/21 were: Environment and Natural Resources (ENR) Management Integrated at National and Local Government levels; Environmental compliance and enforcement of the law, regulations and standards enhanced; Access to environmental information/education and public participation increased; The institutional capacity of NEMA and its partners enhanced, and The national, regional and international partnerships and networking strengthened.

#### Physical performance

By 31<sup>st</sup> December 2020, NEMA’s summarised achievements as per the planned outputs were:

#### **i) Environment and Natural Resources Management integrated at National and Local Government levels**

The NEMA planned to provide support to 20LGs<sup>1</sup> in environmental planning and integration of ENR into district development plans, budgets and activities to ensure sustainable development. Technical support to district and municipal environmental officers within the 20 LGs above was not provided in Mbarara, Masaka and Kayunga as reported in the DLGs.

The NEMA organised a retreat for lead agencies that submitted their reports of FY 2019/20. The retreat sought to review and finalise the Lead Agencies’ consolidated report which summarises key performance targets. Additionally, the NEMA reviewed the Lead Agency compliance assessment tool, which was yet to be endorsed by respective line ministries and all the agencies.

The NEMA applied for accreditation for the Green Climate Fund. Additionally, implementation of the National Biodiversity Strategy Action Plan (NBSAPII) was ongoing through the restoration of degraded ecosystems to reduce loss of natural habitat including forests.

#### **ii) Environmental compliance and enforcement of the law, regulations and standards enhanced**

During the half year period, the NEMA handled 24 litigation court cases through 28 court attendances. The NEMA also continued to support policy and legal framework development. In the second quarter (Q2), the following regulations were concluded: The Air Quality Regulation 2020; Oil Spill Preparedness and Emergency Response Regulations 2020; the National Environment (Environmental Impact and Social Assessment) Regulations 2020; the National Environment (Standards for discharge of effluent into water or on land) Regulations 2020. Drafting of the national guidelines on biodiversity and social offsets; and development of guidelines for Genetically Modified Organisms (GMOs) were ongoing. The development and formulation of ordinances and byelaws for waste management targeting Wakiso, KCCA, Jinja, Mbale, Masaka and Mbarara was also done.

<sup>1</sup> Amuru, Adjumani, Obongi, Yumbe, Kamuli, Kayunga, Isingiro, Mbarara, Kazo, Kiruhura, Kanungu, Masaka, Kyotera, Kiboga, Nakaseke, Luwero, Nakasongola, Masindi, Kiryandongo and Hoima City Council



The NEMA through the Environmental Police Force (EPF) monitored activities such as noise pollution, wetland/lakeshore degradation, community policing, enforcement of restorations orders, violations of EIA conditions of approval, and regulation of environmentally violating activities such as music functions and events among others.

In the period July-December 2020, the NEMA received 892 ESIA reports, of which 729 were issued with certificates of approval. The Authority also received 759 Environmental audit related submissions for review. Submissions reviewed and inspected included food processes, pharmaceuticals, concrete batching, plastic recycling, wood treatment, beverage and alcohol manufacture, shoe making and synthetic hair making, galvanising processes, and effluent treatment plant. The NEMA also handled 82 applications for pollution control licenses of which 18 were approved. These entities will manage waste in accordance with the National Environment (Waste Management) Regulations 2020.

The NEMA undertook compliance monitoring inspections to verify compliance to legal and other requirements, and as follow-up to complaints received from the public. Forty plastic manufacturing facilities in the districts of Kampala and Wakiso were inspected by NEMA in order to ensure sustainable management of plastic waste. The NEMA found that only 45% of facilities producing *kaveera* had recycling units.

The NEMA supported the protection of fragile ecosystem by restoration and demarcation of Kiretwa Peninsula, Lake Nakivale shores in Isingiro and Ntungamo districts, Otuke District, Jinja city/district, Kayunga and Kamuli districts. Community sensitisation on ecosystem management, buffer zone demarcation and protection including removal of illegal structures in the buffer zones, and tree planting in the buffer zones to create a live fence were carried out.

### **iii) Access to environmental information/education and public participation increased**

The NEMA followed up 10<sup>2</sup> schools in Moroto District, and 11 DLGs and municipalities in the Teso sub-region to ascertain their level of progress in implementation of environmental interventions. Two partnership meetings with the DLGs and the non-governmental organisations in the districts of Masaka, Kalungu, Lwengo, Bukomasimbi and Kalangala were held aimed at building capacity of the DLGs and the non-governmental organisations working with environment. The NEMA in collaboration with Tororo DLG undertook monitoring of the greening initiatives in the 10<sup>3</sup> supported primary schools in Tororo on greening initiatives.

The NEMA developed and produced IEC materials that included: one newsletter co-developed in November 2020 e.g. NEMA Newsletter, and one calendar was designed and produced in December 2020 for the year 2021 and posted to the NEMA website. The NEMA evaluated Established Resource Centres in 22<sup>4</sup> districts and distributed to them EIA Reports, and IEC materials.

### **iv) The institutional capacity of NEMA and its partners enhanced**

The NEMA conducted one zoom meeting to sensitise staff on COVID-19 in November 2020. Three meetings were held with the Human Resource Development Committee to deliberate on several human resource matters. Recommendations by the committee were made to the Executive Director for appropriate action. During the period, training and development activities for enhancing staff skills and organization effectiveness were not done due to the COVID-19 pandemic that limited staff travel and gathering.

<sup>2</sup> Moroto Prisons Primary School, Kasimeri Primary School, Eagle's Nest Primary School, Moroto Police Nursery & Primary School, Moroto Municipal Primary School, Moroto Demonstration School, Nakapelemen Primary School, K.D.A Primary School, Rupa Primary School and Kidepo Pupu Community School.

<sup>3</sup> Molo, Achilet, Pagoya, Rubongi, UTRO, ST. Jude Malaba, Papol, Tororo Army, Kainja and Namwaya primary schools.

<sup>4</sup> Kisoro, Rubanda, Kabale, Kanungu, Rukungiri, Mitooma, Ntungamo, Sheema, Bushenyi, Rubirizi, Buhweju, Mbarara, Isingiro, Ibanda, Kiruhura, Ntoroko, Bundibugyo, Kabarole, Kyenjojo, Kyegegwa, Kasese and Kamwenge



The management continued to ensure that the working environment for staff met the health and safety guidelines/policies and standards. Security was provided at NEMA House and the regional offices of Mbarara, Mbale, Lira and Masindi through engagement of Environment Protection Force (EPF). Utility bills (e.g. water and electricity) were paid. Support to regional offices of Mbarara and Masindi were provided through mentoring support to respective districts on issues of massive tree cutting and deforestation, wetland degradation, poor solid waste management and over grazing among others

The Board of Directors held eight technical meetings to guide and promote corporate governance. Additionally, three board field visits to monitor and assess the state of environment in Uganda, performance of NEMA and other partners, and provide guidance to management on areas for improvement were undertaken. The newly established cities of Mbale, Mbarara, Soroti, Lira, Gulu, Masaka, Arua, and Fort Portal were visited to guide on building sustainable cities that will provide sustainable jobs/employment, safe housing, access to clean and safe water, manager waste and pollution as well as have a mind-set change/positive attitude to those adopting to new settings.

### **v) The National, regional and international partnerships and networking strengthened**

The NEMA was in the process of setting up the National Environment Platform meant to engage all stakeholders with respect to environment, natural resources, and climate change. NEMA's engagements in national, regional and international processes were virtually attended owing to the COVID-19 pandemic. The NEMA has also continued to participate and present scientific conferences through engaging with Global Environment Facility (GEF) and UNEP in developing projects.

### **Field findings**

#### **i) Isingiro District**

Training on data collection on ENR was done in Kampala for the district staff and they received gadgets for use. The gadget has an application for wetland data related issues at anyone particular moment in time. It captures the GPS coordinates, photograph of the area, whether degraded or not etc. Information dissemination and files was done for the district as files and district documents were brought in from the centre. Wealth creation on wetlands management was introduced by NEMA/ ICEA/ MWE in Rwekiniro Sub-county. Access to Rwekiniro was blocked by some community members who stopped people from getting things like grass for thatching houses. The district has staffing challenges as three out of the seven approved positions in the department are filled in the department. There is one project motorcycle in the department which makes field movement very difficult.

#### **ii) Mbarara District**

The NEMA trained data collectors using an application from Kampala. Environmental inspections were done on green and brown environment pollution. However, the NEMA conducts restoration activities and compliance is enforced by the district. There is no single transport item in the office and officers rely on well-wishers. This is quite challenging to ensure proper follow ups.

#### **iii) Mpigi District**

The NEMA trained the Environment and Natural Resources staff on their roles and responsibilities and sent the EIA permits to the district for reviews. These included the wetland and sand mining in Nkose, Kamengo, Buwama and Kituntu Sub-counties. The short term permits are a bit slippery more especially those of personal nature compared to those of one year and above. They leave open pits which are dangerous to both animals and communities. The records and files were disseminated to the district by NEMA.



#### iv) Jinja District

The NEMA worked with the LG, demarcated the Budumbuli wetland and lake shore in Bugembe Jinja District in Wanyange and Wailaka Town Councils 100m plant pillars. The activity was done with the support of the Environment Police and sensitisation was only done for the district personnel and local councils. The community was very hostile and think and anyone monitoring the works is taking coordinates and surveying their land to grab it.

#### 3.3.1.2 Retooling of National Environment Management Authority Sub-Programme

The specific objectives of the sub programme are: i) To enable NEMA procure specialized equipment for the effective compliance monitoring and enforcement of all environmental aspects including high impact areas in oil and gas sector; ii) To replace old and outdated environment management tools; iii) To equip and skill NEMA staff in application and use of acquired environmental compliance, monitoring and enforcement tools.

The approved budget of the sub programme in FY 2020/21 is Ug shs 990 million. By 31<sup>st</sup> December 2020, Ug shs 280 million (28.28%) was released, of which Ug Shs 200 million (71.43%) was spent. The release performance was poor whereas the expenditure was good.

The sub-programme planned outputs in FY 2020/21 were: Environmental compliance and enforcement of the law, regulations and standards enhanced; Office and ICT Equipment, including Software purchased; Specialised Machinery and Equipment purchased; Office and Residential Furniture and Fittings purchased.

#### Physical performance

By end of December 2020, the NEMA had achieved the following: A Local Area Network (LAN) for NEMA Mbale Regional Office approved and awaiting implementation. In addition, licenses anti-virus and cyber roam firewall were procured, installed and functioning. The Mbale Regional Office boardroom furniture was purchased.

#### Overall Performance

The overall performance of the Environment Management Programme was good at 87.6% (table 3.7). The key half year targets achieved included support to the Environmental Police Force to monitor compliance to environmental laws and regulations including adherence to environmental permits and certificates conditions. Staff welfare including salaries, utilities, security were achieved. However, there were gaps in trainings and face to face engagements due to the COVID-19 pandemic. It was however noted that NEMA continues to plan without clearly set targets for some outputs and where targets have been set, the reporting doesn't clearly state what quantity of the targets have been achieved.

**Table 3.7: Performance of the Environmental Management Programme by 31<sup>st</sup> December 2020**

Outputs	Annual Budget (000 Ug Shs)	Cum. Receipt ( 000 Ug Shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)
Environment and Natural Resources Management integrated at National and Local Government levels	1,400,000	498,500	100.00	25.00	3.89
Environmental compliance and enforcement of the law, regulations and standards enhanced	4,420,833	767,875	100.00	25.00	17.48
Access to environmental information/ education and public participation increased	2,124,022	399,499	100.00	15.50	6.92
The institutional capacity of NEMA and its partners enhanced	16,220,800	7,309,007	100.00	39.00	55.52
The National, regional and international partnerships and networking strengthened.	820,000	20,000	100.00	20.00	3.24
Office and ICT equipment including software purchased	250,000	67,999	100.00	12.50	0.45
Office and Residential Furniture and Fittings purchase	49,999	26,999	100.00	25.00	0.09
<b>Programme Performance ( Outputs)</b>					<b>87.6 Good Performance</b>

Source: NEMA and Field Findings

## Challenges

- There is no deliberate effort by Government to plan and implement ENR outputs. Overtime little money has been budgeted for ENR outputs in the LGs.
- High levels of wetland degradation and deforestation continued to persist especially in West Nile.
- Limited staffing and funding to DLGs compared to the restoration needs and ever increasing cost of implementing environmental enforcement and compliance work.
- Activity implementations were slowed due to the COVID-19 pandemic. Some staff that fell sick were hospitalised and their contacts isolated for 14 days. This brought works to a standstill.
- Reduced participation of stakeholders in meeting/barazas organised by NEMA since the authority had to limit face-to-face meetings in adherence to the SOPs from the Ministry of Health.





## Recommendations

- The MWE/MFPED should devise means to increase the resource allocation to the ENR sub-sector generally but specifically especially under compliance and enforcement activities to reduce encroachments on forests and wetlands. The MWE should reallocate more money from output institutional capacity of NEMA and its partners to Environment and Natural Resources Management integration in LGs because that is where critical work is done.
- The MFPED/MWE should ensure that no LG plans and budgets can be passed without ensuring the inclusion of critical ENR management outputs since it is a delegated function.
- The NEMA should work with Ministry of Justice and Constitutional Affairs to push for creation of environmental courts. These could strictly deal with matters of environment like encroachments since they are not prioritised under the normal courts, so the suspects end up freed without being penalized and government loses many key cases.
- The NEMA should strengthen the regional offices with more staff on ground to technically backstop LGs in handling compliance measures. On the other hand, the MoPS should ensure that all LGs fill up the existing staffing gaps in the ENR to enable the functionality of the Directorate.
- The MWE should increase the environmental restoration efforts and involve communities in conservation of wetlands.

## Conclusion

The National Environment Management Authority is charged with the responsibility of coordinating, monitoring, regulating and supervising environmental management in the country. Thus NEMA spearheads the development of environmental policies, laws, regulations, standards and guidelines; and guides Government on sound environment management in Uganda. However, on ground NEMA is accused of giving permits to investors disregarding the recommendations of the DLGs in regard to permits issuance to environmental degraders. There were mushrooming factories and foreigners investing in wetlands or even owning titles. It is imperative to note that the environment management is a big challenge for example wetland reduced from 15.5% in 1994 to 13% in 2017 and continue to do so. The NSOER indicates that Uganda's air quality, particularly in urban areas is above the World Health Organisation recommended levels and the increased mining activities have, however, impacted the environment through excessive release of mercury into the air, water and land by artisanal and small scale gold mining.

### 3.4 National Forestry Authority

The National Forestry Authority's mission is to: "Sustainably manage 506 Central Forest Reserves (CFRs) covering an area of 1,265,742 hectares and ensure equitable supply of forest and non-forest products and services to Government, local communities and private sector".

The NFA's strategic objective is improved management of the Central Forest Reserves, expand and promote partnership arrangements, ensure equitable supply of forest and non-forest products and services and enhance organizational sustainability.



The approved budget of NFA in FY 2020/21 is Ug shs 42,701,758,305. By 31<sup>st</sup> December 2020, Ug shs 14,657,956,172 (34.33%) was released of which Ug shs 10,800,216,986 (73.68%) was spent. The release performance was poor whereas the expenditure was good.

In the FY 2020/21, the NFA implemented its planned outputs through one programme - Forestry Management, and two sub-programmes: i) Headquarters; and ii) Support to National Forestry Authority. The programme and sub-programmes assessments for semi-annual performance are highlighted hereafter:

### 3.4.1 Forestry Management Programme

The programme objective is to conserve natural forests and improve management of central forest reserves; promote partnerships for increasing forest cover and mitigate climate change; ensure equitable supply of forest and non-forest products and services; economic, social and environmental benefits especially to the poor and vulnerable; and enhance organisational sustainability.

Since the NFA implements only one programme, the programme and the Vote budget are the same. The approved budget for NFA in FY 2020/21 is Ug shs 42,701,758,305. By 31<sup>st</sup> December 2020, Ug shs 14,657,956,172 (34.33%) was released, of which Ug shs 10,800,216,986 (73.68%) was spent. The release performance was poor, whereas the expenditure was good.

#### 3.4.1.1 Headquarters Sub-Programme

The sub-programme objectives are: i) To sustainably manage 506 Central Forest Reserves through survey and demarcation of forest boundaries with pillars; forest protection against illegal activities; professional forestry law enforcement; removal of encroachments; cancellation of illegal land titles on gazette forest reserves; restoration planting of degraded forest areas; investment in commercial plantations establishment and maintenance; increased production and supply of seedlings from verifiable seed sources and nurseries. ii) To support massive tree planting in Uganda and develop modern forestry applications and infrastructure and support other forestry dependent sectors especially biomass energy, housing and construction, climate change disaster preparedness for sustainable national development with balanced livelihood and conservation priorities.

The annual approved budget for FY2020/21 is Ug shs 29,818,765,305, of which Ug shs 9,694,783,797 (33%) was released and Ug shs 8,330,657,739 (86%) utilised by 31<sup>st</sup> December 2020. Release performance was poor, whereas the expenditure was good.

The annual planned outputs were: i) Central Forest Reserves managed; ii) Plantations managed; iii) Seeds and seedlings supplied; iv) Human resource services managed; v) Records services managed. The NFA achievements against the planned outputs were as follows:

#### Physical performance

**Central Forest Reserves:** In total, 4944ha were freed from encroachment in various reserve areas. A total of 169km of forest boundary surveyed and marked with pillars<sup>5</sup>. Agreements were reviewed and signed with community based associations for management of 18,168ha under Collaborative Forest Management (CFM). Awareness meetings involving various stakeholders were conducted in several management areas. Four Forest Management Plans for Kaabong, Mwenge, Jinja-Bunya and Mafuga were presented to the NFA Board of Directors for approval. Technical and financial evaluation of three consultants' bids for

<sup>5</sup> Kyahi-18.5km, Kandanda-Ngobya-5km, Angutawere-9.5km, Kumi-3km, Lwamunda-13km, Kyewaga-6.8km and Kojja-3km on Buvuma islands. In Budongo CFR-8.2km, Naludugavu-3km, Wamasega-2.4km, Nawandigi-2.5km, Kandanda-15km, Budongo-20km, Kyahi-13.6km, Namwasa-5km, Bugoma-25km, Kyewaga-5km, and Lwamunda-10.87km.



preparation of Forest Management Plans of Buvuma, Mpanga, Kasana, Kasambya and Matiri, Lira-Apac MPAs was finalized.

Plantations Management (Katugo-458ha, Lendu-1,600ha, Mafuga-302ha, Mbarara-160ha, Mwenge-650ha, South Busoga-300ha, Abera-20ha, Opit-150ha, Muzizi River Range-704ha, Kyoga range-45ha, Achwa River Range-61.5ha, Kyoga Range-20ha, Muzizi River Range-410ha). Additionally, spot weeding of 126.7ha were done in Ongom, Kacungu and Lagute plantations, and Achwa, Kachung CFR, Ayer Bala Road, and Kyoga Range. Spraying was done in Achwa River Range-42ha and Budongo System Range-7ha. A total of 205ha of tree plantations were thinned in Abera-150ha and Nile bank-8ha and 47ha in South-Busoga. A total of 222km of fire management roads were maintained countrywide in Lendu, Mwenge, and Budongo System Range.

**Supply of seeds and seedlings:** A total of 2,762,956 assorted seedlings were sold to the public and supplied for NFA's own planting from South-Busoga and National Tree Seed Centre (NTSC).

**Human Resource Management Services:** The NFA deployed a total of 349 staff in 13 management areas countrywide. Contract staff salaries, NSSF contributions and gratuity was paid for the half year period and 25 staff contracts were renewed. Staff were trained over zoom on how to access the online Human Resource Management System to manage leave application and pay slips. A workshop to review NFA job descriptions per directorate was conducted and attended by a team of selected staff. Five students were shortlisted and attached for internship. However, the COVID-19 pandemic limited the number of internship attachments.

**Records Management:** The SUN Accounting System subscription was renewed; ICT hardware related issues including repairs were attended to; Licenses for Enterprise Anti-Virus software and Enterprise Anti-spam software for protection of information assets and Email or communication security respectively were procured; an ICT field trip to improve regional office ICT connectivity was undertaken; An all in one desktop workstation and three MFP printers for Lendu, audit office and procurement office were procured.

### 3.4.1.2 Support to National Forestry Authority Sub-Programme

The sub-programme objective is woodlot establishment and increased tree cover; Sustained supply of assorted high quality cheap seedlings; Demonstration of best practice in tree growing on key roads; Restoration of degraded and environmentally sensitive areas

The programme annual approved budget for FY 2020/21 is Ug shs 12,882,993,000, of which Ug shs 4,963,172,375 (39%) was released and Ug shs 2,469,559,247(50%) spent by 31<sup>st</sup> December 2020. Release performance was poor and expenditure was fair. The unspent funds were due to the lengthy procurement process for transport equipment, agricultural supplies and consultancy services short term. The process sometimes spills over into the third and fourth quarters yet payments are made after delivery of the goods and services.

The sub-programme outputs in FY 2020/21 were: i) Central Forest Reserves managed; ii) New tree plantations established; iii) Seeds and seedlings supplied; iv) Motor vehicles and other transport equipment purchased. The sub programme achievements against these planned outputs during the half year period were as follows:



## Physical Performance

**Central Forest Reserves:** A total of 405ha were freed from encroachers and were under natural forest regeneration (400ha in Nyakunyu, Kandanda-Ngoby, Kanaga, Bugoma, Akur, Kadam, Bukaleba, Luwawa, Kijogolo, Wabitembe, Lukalu and 3ha in Lwamunda in partnership with Toro Botanical Garden and 2ha in Nawandigi CFR- Lakeshore Range in partnership with Uganda Federation of Employers' Association). A total of 169km<sup>6</sup> of forest boundary surveyed and marked with pillars.

**New tree plantations establishment:** 425ha of tree plantations were established in Lendu-70ha, Rwoho/Mbarara-150ha and Mwenge-75ha. Furthermore, in Mafuga-Kirima-68.4ha, and in Rwoho CFR 50ha. This provided 383 employment and income opportunities in respective planting areas.

**Seeds and seedlings supply:** A total of 346,626 assorted seedlings were produced and supplied from 18 community nurseries countrywide. 14,191kg of assorted seeds were collected, processed and supplied from Namanve Tree Seed Centre and various community nurseries in the country.

**Motor vehicles and other transport equipment:** The NFA initiated the procurement of five single cabin and two double cabin pick-up trucks. The process was at contract drafting and seeking approval of the Attorney General.

## Field findings

### i) Masindi-Budongo System

**Central Forest Reserves managed:** The 10 Forest Management Plans were not prepared due to limited funds. 4,000ha (10% of 40,000ha) of CFRs freed restored (Kei-500, Ave-50, Enzeva-50, Oming-50-Iyi-200, Kafu-100, Omier-200, Abiba-100, Zoka-100, Bukaibale-500, Budongo ssm-500, Kyoga-500, Karamoja-500, Muzizi-400, s/west 150, Sangobay-100) was freed from encroachers. 4,000ha increased CFM access-benefits for local communities (320-kyoga, 450- West Nile, 400-Achwa, 550-Budongo, 500-Muzizi, 340-Sangobay, 1,000-Lakeshore, 440-Karamoja). A total of 559km of forest boundaries re-surveyed and marked with pillars (Achwa Range (70km), Budongo Range (70km), Katuugo Plantation (45Km), Lakeshores Range (90Km), Muzizi Range (65Km), Sango Bay Range (70km) and West Nile Range (90Km) and Mafuga 59km.

**Plantations managed:** A total of 300km of fire line roads maintained for fire prevention in liaison with community fire gangs, 10,000ha-private tree farmers assessed in all regions for compliance and 30,000ha of tree farmers demarcated 13 regions/management areas. There was no budget provision for tree plantations pruning, thinning and weeding.

**Seeds and seedlings supplied:** A total of 16.8144m seedlings and 3,337kg-seeds supplied. (8.050m-Namanve, 0.5m-Achwa, 0.6m-BSR, 0.21m-Karamoja, 1.2m-Kyoga, 0.7284m-Muzizi, 1m-W/Nile, 1.05m-L/Shore, 0.36m-S/Bay, 0.56m-Lendu, 0.33m-Mafuga, 0.23m-S/Busoga, 0.23m Opit, 0.1m-Mwenge, 0.256m-Katuugo, 0.5m-Mbarara)

**Human resource services managed:** Protective wear, HIV/AIDs, Gender and Equity main streaming, staff medical and GPA insurance, staff salaries/wage, NSSF and gratuity payment were made. All the staff had medical cards, paid salaries and gratuity to date.

<sup>6</sup> Kyahi-18.5km, Kandanda-Ngoby-5km, Angutawere-9.5km, Kumi-3km, Lwamunda-13km, Kyewaga-6.8km and Kojja-3km on Buvuma islands, Bulondo CFR-8.2km, Naludugavu-3km, Wamasega-2.4km, Nawandigi-2.5km, Kandanda-15km, Budongo-20km, Kyahi-13.6km, Namwasa-5km, Bugoma-25km, Kyewaga-5km, and Lwamunda-10.87km.



**Records services managed:** A total of 20 mobile computers & GPS, 20-ArcInfo Licenses, 8-Microsoft licenses, 1 PABX tel. system, five desktop stations, 10 laptops, 4 MFP printers, internet connectivity NFA Headquarters and 16 field stations and renewal of antiviruses. Five Desk tops, 01 laptop, 05 printers were procured; 04 Sector offices, 01 Accounts office and 01 Range office, 04 motor vehicles, 21 motor cycles and 02 offices had internet maintained.

### Challenges

- 1) Limited funds affected implementation of all planned activities.
- 2) The COVID-19 hindered revenue collection from the tourist sites and hence affected the cash flow.

### Recommendations

- 1) The NFA should lobby and advocate for financial support from development partners that handle environmentally related activities.
- 2) The NFA should promote raising of bamboo for sale and supply to stakeholders, this will serve as an alternative to timber and firewood other than people relying on the remaining natural vegetation.
- 3) The Ministry of Tourism, Wildlife and Antiquities should promote tourism industry at international, national and local levels.
- 4) The NFA need to do sensitization for massive tree planting by all the stakeholders.

#### ii) The Achwa River Range

The Range has four sectors (Gulu, Amuru, Amuru and Nwoya). The plantations are either under Plantation Development or Natural Forests. By December 2020, all expenditures were put under the plantation area. The approved budget was Ug shs 325,700,000 and only Ug shs 129m was released and Ug shs 66m was spent by 31<sup>st</sup> December 2020.

The planned outputs included 200ha Plantation establishment (100ha in Opit and 100ha Abera). However, all the payments are centralised thus no payment was done. Under spot weeding and slashing weed: 200Ha (100ha Tick and 100 pine). For Natural Forests 38ha were planned and done as 17ha of these were for Geminne. Restoration of 13ha was planned at Anka Forest Reserve. Spraying was planned for all and done. Fire line maintenance was planned and done (Opira Bera (19Kn), 12Km in Amka, Lagure and Keyo.

The 10Km of internal roads, three out of seven planned sensitisation meetings were not done. Ongoing works included fire line patrols and this was being done by 17 people. Thinning in Keyo was done for 58.56 Ha, Abera 21m and Lagute 6.93m.

**Nurseries:** The National Tree Centre Programme planned 300,000 seedlings in Kilak, 150,000 seedlings in Lira, and Apac 100,000 seedlings. The achieved were 200,000, 60,000, and 70,000 seedlings respectively. The planting was structured to start with seedlings which take long in the nurseries. However, the seedlings are usually picked by politicians and not planted. The money for commercial seedlings was not received. Under NFA own planting, about 150 seedlings were raised, and more were being planted. There was nothing planned for community seedlings in Kitgum since United Nations High Commissioner for Refugees (UNHCR) is already operating there.



L-R: Seedling preparations in the seed bed in Gulu Town Council, Gulu District

## Challenges

- The COVID-19 restrictions limited people's movements. This implied that it was very difficult to move to nurseries to pick the seedlings.
- Limited funds released thus a few activities were implemented.
- The revenue projects from Non-Tax Revenue were very low. The Range demands about Ug shs 300m from Gulu University from ground rent. The private tree planters were also not paying license fees. The NWSC facilities (lagoons, water pumps) do not want to pay their bills too.
- The forest boundaries were not well defined which makes management a challenge. There is not enough money to open up these boundaries.
- In Achwa Forest Reserve the politicians organised the locals to chase away rangers. In Amuru all the people who were allotted forest land for private planting could not access it because they got chased away.
- The office vehicles were too old thus could not do enough field work like patrols. Sometimes they get stuck in the field.

## Overall Performance

The overall programme performance was good at 84.7% by end of the half year period (table 3.8). The NFA was steadily progressing towards achieving its outputs. Major achievements include 405ha freed from encroachers and under natural forest regeneration. A total of 8,071ha plantations were weeded in various management areas countrywide and 2,762,956 assorted seedlings were sold to the public and supplied for NFA's own planting from South-Busoga and National Tree Seed Centre (NTSC).

**Table 3.8: Performance of the Forestry Management Program by 31<sup>st</sup> December 2020**

Outputs	Annual Budget ( Ug shs)	Cum. Receipt ( Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)
Management of Central Forest Reserves	15,990,982,570	3,880,982,648	100	38.45	37.45
Establishment of new tree plantations	1,000,000,000	500,000,000	100	21.30	1.00
Plantation Management	3,087,483,780	420,637,677	100	65.20	7.23
Supply of seeds and seedlings	7,333,745,285	2,782,872,375	100	24.00	10.86
Human Resource Management Services	11,397,546,670	5,896,025,972	100	50.00	25.80
Records Management Services	462,000,000	135,197,500	100	40.00	1.08
Purchase of Motor Vehicles and Other Transport Equipment	3,430,000,000	1,042,240,000	100	5.00	1.32
Programme Performance (Outputs)					84.74 - Good Performance

Source: NFA and Field findings

### Programme Challenges

- The low quarterly releases affected budget and work plan execution. By half year, only 34.33% of the budget was released. The NFA has failed to become self-financing as anticipated at the time of its formation.
- The mismatch between tree planting activities and irregular budget releases led to wastage in tree nurseries and subsequent loss of non-tax revenue. Since tree planting can only be done at a particular season of the year, it requires that the funds should as well be available within that time, but this is not the case.
- Decrease in the number of tourists (both local and foreign) to NFA's ecotourism sites and successively a decrease in NTR caused by the effects of the COVID-19 pandemic and the subsequent lockdown, and health and safety measures instituted by government.
- Decreased demand for seedlings due to the post COVID-19 lockdown poor economic environment. This has resulted into low production of both commercial and community seedlings and subsequently loss of non-tax revenue.
- Political interference into operations of the institution by local leaders and representatives at various levels hindering lawful eviction of encroachers and demarcation of forest boundaries. The encroachers thus enjoy the patronage.
- Degradation of natural forests due to encroachment and illegal timber/tree extraction to forests in protected areas.
- Unclear forest boundaries which has given encroachers opportunity to illegally claim forest land.
- Inadequate forest management infrastructure and equipment for example forest roads, staff accommodation and forest management stations limiting effective and efficient forest management in all central forest reserves.



- Illegal land titling of CFRs land by Uganda Land Commission, Kingdom and District Land Boards, contrary to the Constitution 1995, and Section 44 of the Land Act, 1998.
- Old fleet of vehicles which is affecting mobility of staff to monitor and supervise activities within the CFRs and plantations.

## Recommendations

- The MFPED should adhere to the annual cash flow plan for the different votes to allow achievement of the targeted outputs.
- The NFA should invest in development of a business model to target post COVID-19 economic recovery.
- The MLHUD should mobilise and sensitise political leaders on land ownership, encroachment and lawful evictions.
- The NFA should strengthen coordination for Forest Law Enforcement and governance to reduce forest illegalities such as encroachment and illegal product harvesting through public awareness.
- A multi stakeholder approach by NFA/MWE/politicians should be adopted to continue re-opening and demarcating of forest boundaries and cancel titles in order to address encroachment on forest land.
- The MWE should fast track cancellation of illegal titles and those responsible for their issuance in the Uganda Land Commission, Kingdoms and District Land Boards should be held responsible.
- The NFA should mobilise and lobby district leaders, communities and development partners to actively support forest conservation and tree-planting efforts.
- The NFA should rehabilitate infrastructure and replace equipment e.g. transport (vehicles, boats and motorcycles) and forest stations/offices.

## Conclusion

The NFA is mandated to Manage Central Forest Reserves on a sustainable basis and to supply high quality forestry-related products and services to government, local communities and the private sector. There is a need for revival of the performance contract arrangement if the government is to carry out its supervisory role effectively because the NFA is not performing as prior expected for example it is not self-sufficient in terms of funding. It has not been able to control encroachers on forests who continue to affect the forest cover. It declined from 24% in 1990 to 10% in 2017 through increased to 12.4% in 2020.

## 3.5 Uganda National Meteorological Authority

The UNMA's mission is: 'To contribute to the overall national development through provision of quality, customer focused, cost effective and timely information for weather and climate services to all users'.

The strategic objectives of UNMA are:

- To improve the quantity and quality of meteorological services to customers by strengthening the observation network, National Meteorological Center, Data and information exchange according to World Meteorological Organisation (WMO) and International Civil Aviation Organization standards.





- To build a skilled and motivated workforce through good human resource management practices.
- To promote greater awareness of the benefits of using meteorological services, information and products for public safety and socio-economic planning.
- To improve the accuracy and reliability of forecasts and advisory services through the development of climate prediction and short term weather forecasting capability.

The approved budget of UNMA in FY 2020/21 is Ug shs 26.614bn. By 31<sup>st</sup> December 2020, Ug shs 8.26bn (31%) was released, of which Ug shs 6.893bn (83%) was spent. The release performance was poor whereas the expenditure was good.

The UNMA implemented its outputs through one programme - National Meteorological Services and four sub-programmes: i) Headquarters; ii) Finance and Administration; iii) Training and Research; and iv) Retooling of Uganda National Meteorological Authority. The programme and sub-programmes were all assessed and the findings are as follows:

### 3.5.1 National Meteorological Services Programme

The programme objective is to provide data and information on weather, climate, and climate change to support sustainable social and economic development of the economy. Since the UNMA implements only one programme, the vote and programme financials are the same. Hence the programme's approved budget in FY 2020/21 is Ug shs 26.614bn. By 31<sup>st</sup> December 2020, Ug shs 8.26bn (31%) was released, of which Ug shs 6.893bn (83%) was spent. The release performance was poor whereas the expenditure was good.

#### 3.5.1.1 Headquarters Sub-Programme

The sub-programme objective are: i) To provide meteorology services to customers and public in the most efficient and effective manner, manage affairs of the authority in a business-like and cost effective manner, ensure the authority operations are designed for provision of best services to its customers, and maintain responsiveness of their needs; ii) To approve annual plans and budgets; iii) To monitor and implement the authority plans and programs; and iv) To oversee proper management of the authority's assets and finances.

The annual planned outputs of the headquarters sub-programme were: Administration and management supported; Strategic management services enhanced; and National Meteorological Training School supported. The performance of the sub-programme outputs are presented hereafter:

#### Physical performance

**Administration and Management Support:** The Executive Director of UNMA conducted liaison visits in the districts of Soroti, Jinja, Lira, Masindi, Kasese, Rwampara and Mbarara. International and regional conferences such as the 26th Session of the United Nations Framework on Climate Change Convention (UNFCCC), Conference of Parties, the Climate Change Conference 2020, the East African Real Data Monitoring, Sectoral committee on transport, communications and meteorology, Operations and Heads of Meteorological were not attended due to travel restrictions as a result of the COVID-19 pandemic.

**Strategic Management Services:** The UNMA reviewed and approved the Human Resource Manual 2020 to enhance performance; Expired staff contracts were renewed, including that of the Executive Director; Acting directors were appointed in vacant positions. However, there was delayed finalisation of recruitment for vacant posts due to the lockdown as a result of the COVID-19 pandemic.



**National Meteorological Training School (NMTS):** National Meteorological Training School was supported to facilitate finalists only. This was simply because the other candidate classes were still under the COVID 19 lockdown.

### 3.5.1.2 Finance and Administration Sub-Programme

The objectives of this sub-programme are: i) To manage the authorities resources in conformity with applicable rules and regulations and provide reliable and accurate reports to stakeholders. ii) Coordinate the planning process resource, mobilisation and development of the annual work plan and budget. Iii) Supervise all the human resources functions so as to create industrial harmony at the workplace and adherence to the rules and regulations.

The annual planned outputs of the finance and administration sub-programme were: Administration and management supported; Human resource management services enhanced; Records management services enhanced. The performance of the sub programme outputs are presented hereafter:

#### Physical performance

**Administration and management support:** Three monthly media breakfast meetings were conducted to improve rebranding and visibility. Due to the COVID-19 restrictions on public gatherings, outreach and public awareness campaigns on weather and climate issues, national and international days were not commemorated.

**Human Resource Management Services:** Performance monitoring of UNMA's decentralised offices in Kabale, Kasese, Mbarara and Bushenyi was conducted. A healthy work force was maintained and statutory obligations for staff were paid for the half year period.

**Records Management Services:** Standard records management systems were streamlined and strengthened in Mbarara, Bushenyi, Kasese and Kabale stations. However, no records staff training and user sensitisation on record procedures were conducted due to insufficient funds available.



Jinja Weather Station



Kayunga Weather Station

Maintenance of equipment where sim card replacement, cleaning was done for the stations and general bush clearing. However, in Kayunga the bush grew again and requires frequent cleaning up which can be done by the district.



### 3.5.2.3 Training and Research Sub-Programme

The sub-programme objectives are to: Continuously develop staff professional skills; upgrade staff careers through acquiring higher qualifications; ensure staff participate in specialised training for acquisition of new skills; promote staff skills exchange programmes. The sub-programme planned output was: Administration and management supported. This output performed as follows:

#### Physical performance

**Administration and management support:** A data collection tool was developed and administered to People with Disabilities (PWDs) in Wakiso, Mukono, Lira, and Dokolo and data analysis was ongoing. State of Climate of Uganda 2019 Report was completed awaiting printing. A draft State of Climate of Uganda 2020 awaited editing.

### 3.5.1.3 Retooling of Uganda National Meteorological Authority Sub-Programme

The sub-programme objectives are to: Develop meteorological communication infrastructure network; Develop and standardise National Weather and Climate Products; Improve the work environment for 53 major field stations; Improve working environment and service delivery of the National Meteorological Training School (NMTS).

The approved annual budget was Ug shs 14,202,320,974, of which Ug shs 3,875,122,257 (27%) was released and Ug shs 3,553,383,807 (92%) spent. The release performance was poor, whereas the absorption was very good.

The planned outputs of the sub-programme were: i) Weather and climate services enhanced; ii) Administration and management supported; iii) Human resource management services enhanced; iv) Government buildings and administrative infrastructure maintained; v) Motor vehicles and other transport equipment purchased; vi) Office and ICT equipment, including software purchased; vii) Specialised machinery and equipment purchased; viii) Office and residential furniture and fittings purchased. The sub-programme performance against each output was as follows:

#### Physical performance

**Weather and Climate Services:** A total of 50 rain gauges were maintained functional across the country. Five DAVIS Community Automatic Weather Stations were maintained functional in Lamwo, Amuru, Jinja, Kayunga and Karenga. A total of 60 ADCON AWS functionality was improved across the country. Functionality of 30 manual weather stations was improved.

A total of 1,102 Terminal Aerodrome Forecasts were issued for Entebbe and Soroti, 39 SIGMETS were issued for Entebbe and 2,393 Flight folders were issued for Entebbe. Daily forecasts were disseminated to three media houses - UBC TV, Star TV and Bukedde TV 1 after the newscasts in Luganda, Swahili and English. Two seasonal forecasts were issued at the Uganda Media Centre. Regional talk shows were conducted in Mitooma, Rubirizi, Ntungamo, Ibanda, Lira, Dokolo, Oyam, Wakiso, Mpigi, Butambala and Gomba to disseminate and get feedback on the seasonal forecasts issued. Mapping of stakeholders was done in Mubende, Kassanda, Kyankwanzi, Kiboga, Iganga, Kaliro, Budaka and Bukedea to undertake seasonal rainfall performance evaluations of the seasonal forecasts issued. Climate change and vulnerability mapping conducted in Mpigi, Butambala, Gomba, Sembabule, Sheema, Bushenyi, Rubirizi, Kamuli, Buyende, Bulambuli and Kween.



**Administration and management support:** The Q1 and Q2 performance report were prepared and submitted accordingly. The Q1 and Q2 internal audit reports were also prepared. Office equipment maintained. Deed plans for Mbarara issued pending issuance of land title. For Gulu, Plot 17 was still being disputed and the matter is before Uganda Land Commission for resolution. However, for Plot 14 boundaries were opened and boundary marks fixed. For land in Bududa, formal letters authorising allocation of land to UNMA were issued by the Town Council.

**Human Resource Management Services:** A good working environment for employees was created through provision of welfare items, guard and security services. Recruitment for vacant positions was in the final stage.

**Purchase of Office and ICT Equipment, including software:** Procurement for these items was still ongoing.

**Purchase of Specialised Machinery & Equipment:** The procurement process for purchase of 100 manual rain gauges, 35 digital evaporation pans, 300 measuring cylinders was completed pending delivery of goods. The contract for supply of 20 Automatic Weather Stations was signed and a letter of credit opened awaiting shipment and delivery of equipment.

**Purchase of Office and Residential Furniture and Fittings:** Curtains for the boardroom, two desks, nine filing cabinets, 26 chairs, blinds for all offices at Headquarters were procured.

### Field findings

Budget cuts caused revisions based on the approved budgets which differed from the ones reflected in the MPS. For example, procurement of equipment which was already in the process could not be effected because it was initiated in the previous financial year and yet the money finally allocated to it was not enough.

### Jinja Station

The internet and computer with anti-virus were updated. The office was supplied with stationery and all other consumables. However, it lacks a means of transport for staff. The office space is very small and acts as a store and thus cannot accommodate enough equipment like the printer thus printing services are outsourced. There are three staff in office and no attendant. Equipment like the slide ruler and the minimum thermometer are too old and the Stevenson's Screen is broken. The inverter battery needs replacement.

### Kayunga Station

Maintenance works were done at the station in December 2020. These included slashing, cleaning of equipment, sim card replacement, dusting greasing and general replacement of spare parts. However, at the time of visitation in February 2021, the bush had grown up again and the compound was in need of slashing. There is limited communication with the centre to provide backup support and yet the station's management was not handed over to the district.



## Overall Performance

The performance of the National Meteorological Services Programme was good at 73.69%. A number of planned outputs were achieved within the half year period as planned despite the challenges of the programme. Table 3.8 reflects the performance of the programme.

**Table 3.8: Performance of the National Meteorological Services Programme by 31<sup>st</sup> December 2020**

Outputs	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target (%)	Cum. Achieved Quantity (%)	Weighted Score (%)
Weather and Climate services	3,479,010,000	422,675,000	100	31.0	14.97
Administration and management support	2,861,602,728	845,998,852	100	25.4	10.58
Strategic Management Services	693,680,000	306,213,051	100	10.0	0.68
Human Resource Management Services	10,871,618,986	3,613,618,525	100	40.0	46.78
Records Management Services	38,300,000	14,800,000	100	50.0	0.16
National Meteorological Training School (NMTS)	120,000,000	30,000,000	100	25.0	0.52
Purchase of Office and ICT Equipment, including Software	463,749,026	200,971,500	100	0.0	0.00
Purchase of Specialised Machinery & Equipment	4,565,000,000	2,796,270,757	100	10.0	3.21
Purchase of Office and Residential Furniture and Fittings	147,000,000	29,400,000	100	10.0	0.32
<b>Programme Performance ( Outputs)</b>					<b>73.69</b>

*Source: UNMA and Field Findings*

## Implementation Challenges

- The number of Terminal Aerodrome Forecasts and Flight folders issued reduced due to the COVID-19 outbreak which led to closure of the passenger aircraft thereby affecting the demand for these products.
- The closure of schools during the COVID-19 lockdown stopped awareness programs on the importance and use of meteorological services implementation in both primary and secondary schools.
- Limited manpower especially at the meteorological stations. Majority of the synoptic stations are manned by two-three staff instead out of seven, while the agro-met and hydro-met stations are manned by one staff instead of the recommended four under Quality Management Standards of ICAO and WMO. Some of the stations are completely closed due to lack of staff.
- Transport constraints as the UNMA has few vehicles and motorcycles which affects field activities that inform the functionality and maintenance of weather stations.



## Conclusion

The performance of the meteorological services was good at 73% implying that they achieved most of the targeted outputs. However, the Uganda National Meteorological Authority (UNMA) is responsible for establishing and maintaining weather and climate observing stations network, collection, analysis and production of weather and climate information, (including warnings/advisories) to support social and economic development. This implies that the Authority depends on the quantity and quality of equipment to fulfill their objectives. Due to challenges of equipment, operating weather stations, field personnel and transport, the quantity and quality of data is still wanting. More effort should be put into procurement of modern equipment and motivate personnel to improve data reliability and availability.



## CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

### 4.1 Conclusion

The overall sector performance was good at 79.5%. All programmes exhibited good performance, apart from Water for Production which was fair at 56%. Some of the planned outputs achieved included: construction of new and rehabilitation of water piped systems, point water sources, establishment of large and small scale irrigation systems and restoration of fragile ecosystems among many others. Completed piped schemes included: Kashaka-Bubaare, Kasanda and Kasambya, plus Rwengaaju, Mubuku II and Tochi irrigation systems.

Some challenges have persisted over time in the sector. These include: delayed initiation of works due to late procurement, land conflicts, limited cash flows or non-remittance of counterpart funding to pay contractor's certificates, illegal timber extractors, titled forest land and wetlands; political interference on lawful evictions of encroachers and demarcation of forest boundaries, climate change, inadequate planning among others. In order for the sector to achieve the NDP III targets, a number of recommendations are suggested.

### 4.2 Recommendations

- Programme approach to planning is critical to minimise revenue losses thus funding of sub-programmes will be determined by their contribution to the programme outcome.
- The Ministry of Lands, Housing and Urban Development (MHLUD) should expeditiously review the land acquisition policy for development of government projects. In the meantime, only projects with clear Right of Way should be planned and implemented to avoid further delays.
- An efficient collaboration of key sector players led by MWE including the NEMA, NFA, and MHLUD should streamline the land eviction process to ensure forests and wetlands are protected and helped to regenerate. All illegal titles should be cancelled and officers involved held accountable.
- The UNMA should prioritise procurement of modern equipment for effective and efficient data capturing and processing in order to cope with the climatic changes and customer service satisfaction.
- The government should negotiate for reduced counterpart funding instead of overcommitting itself and failing to fulfill its obligation.
- Accounting officers should ensure that the project procurement plans are adhered to, and be held accountable to non-adherence. Penalties should be instituted for non-adherence.



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## ANNEX

### Annex 1.1: WES Programmes monitored for Semi Annual Performance FY 2020/21

Vote / Programme	Sub Programme / Output and Location (District)
<b>Vote 019 MWE</b>	
<b>Programme 0901: Rural Water Supply and Sanitation</b>	<p>Sub Programme 1347: Solar Powered Mini-Piped Water Schemes in rural Areas</p> <ul style="list-style-type: none"> <li>- Construction of Sembwa WSS in Nakaseke district.</li> <li>- Construction of Ngando WSS in Butambala district.</li> </ul> <p>Sub Programme 1359: Piped Water in Rural Areas</p> <ul style="list-style-type: none"> <li>- Construction of Kahama II WSS in Ntungamo district.</li> <li>- Construction of Lukalu-Kabasanda WSS in Butambala district.</li> </ul>
<b>Programme 0902: Urban Water Supply and Sanitation</b>	<p>Sub Programme 1188: Protection of Lake Victoria-Kampala Sanitation Program</p> <ul style="list-style-type: none"> <li>- Construction of Nakivubo Waste Water Treatment Plant in Kampala District</li> </ul> <p>Sub Programme 1193: Kampala Water Lake Victoria Water and Sanitation Project</p> <ul style="list-style-type: none"> <li>- Construction of Katosi transmission mains and Katosi Water treatment plant in Mukono district</li> </ul> <p>Sub Programme 1438: Water Services Coverage Acceleration Project (SCAP 100)</p> <ul style="list-style-type: none"> <li>- Construction of Kapeeka WSS in Nakaseke district.</li> </ul> <p>Sub Programme 1525: WSDF South Western phase II</p> <ul style="list-style-type: none"> <li>- Construction of Kashaka-Bubare WSS in Mbarara district</li> <li>- Construction of WSDF SWB Office block in Mbarara district</li> </ul> <p>Sub Programme 1531: South Western Cluster (SWC) Project</p> <p>Sub Programme 1533: WSDF central phase II</p> <ul style="list-style-type: none"> <li>- Construction of Kakunyu-Kiyindi WSS in Buikwe district</li> <li>- Construction of Kasambya-Kikandwa WSS in Mubende district</li> </ul> <p>Sub Programme 1534: WSDF North phase II</p> <ul style="list-style-type: none"> <li>- Construction of Padibe Town Council WSS in Lamwo district</li> </ul>
<b>Programme 0903: Water for Production</b>	<p>Sub Programme 1398: Water for Production Regional Centre West</p> <ul style="list-style-type: none"> <li>- Construction of Lwengo small scale irrigation scheme in Lwengo district</li> </ul> <p>Sub Programme 1523: Water for Production phase II</p> <ul style="list-style-type: none"> <li>- Construction of Rwengaju irrigation scheme in Kabarole district.</li> </ul>
<b>Programme 0905: Natural Resources Management</b>	<p>Sub Programme 1417: Farm Income Enhancement and Forestry Conservation Project Phase II</p> <ul style="list-style-type: none"> <li>- Construction of Mobuku irrigation scheme in Kasese district</li> <li>- Construction of Tochi irrigation scheme Oyam district</li> </ul> <p>Sub Programme 1520: Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda</p> <p>Sub Programme 1697: Natural Wetlands Restoration Project</p>



Vote / Programme	Sub Programme / Output and Location (District)
<b>Vote 150 NEMA</b>	
<b>Programme 0951: Environmental Management</b>	Sub Programme 01: Administration Sub Programme 1304: Support to NEMA Phase II
<b>Vote 157 NFA</b>	
	Sub Programme 01: Headquarters Sub Programme 0161: Support to National Forestry Authority
<b>Vote 302 UNMA</b>	
<b>Programme 0953: National Meteorological Services</b>	Sub Programme 01: Headquarters Sub Programme 02: Finance and Administration Sub Programme 03: Training and Research Sub Programme 1371: Uganda National Meteorological Authority

Source: Authors' Compilation





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