



WATER AND ENVIRONMENT SECTOR

SEMI-ANNUAL BUDGET MONITORING REPORT

FINANCIAL YEAR 2019/20

APRIL 2020

Ministry of Finance, Planning and Economic Development
P.O. Box 8147, Kampala
www.finance.go.ug

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ABBREVIATIONS

AIA	Appropriation in Aid
AfDB	African Development Bank
ADB	African Development Bank
AMCEN	African Ministerial Conference on the Environment
AMCOMET	African Ministerial Conference on Meteorology
BPT	Break Pressure Tank
CBOs	Community Based Organisations
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanisms
CFR	Central Forest Reserve
CMP	Catchment Management Plan
CSOs	Civil Society Organizations
DDPs	District Development Plans
DLGs	District Local Governments
DWOs	District Water Office / Officers
DWSDCG	District Water and Sanitation Development Conditional Grant
EAC	East African Community
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
GFS	Gravity Flow Scheme
GIS	Geographical Information System
GKMA	Greater Kampala Metropolitan Area
GoU	Government of Uganda

HPMAs	Hand Pump Mechanic Associations
HIV/AIDS	Human Immune Virus / Acquired Immune Deficiency Syndrome
ICT	Information Communications Technologies
IEC	Information, Education and Communication
ISO	International Organisation for Standardization
IEC	Information, Education and Communication
IGAD	Intergovernmental Authority for Development
IPC	Interim Payment Certificate
IFMS	Integrated Financial Management System
KCCA	Kampala Capital City Authority
Km	Kilo Meter
LGs	Local Governments
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MoH	Ministry of Health
MDAs	Ministries Departments and Agencies
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MCM	Million Cubic Meters
MFPED	Ministry of Finance Planning and Economic Development
MOU	Memorandum of Understanding
MoLHUD	Ministry of Lands Housing and Urban Development
MTEF	Medium Term Expenditure Framework
MWE	Ministry of Water and Environment
NEF	National Environment Fund
NDF	Nordic Development Fund
NDP2	Second National Development Plan
NDP II	Second National Development Plan
NOSCP	National Oil Spill Contingency Plan
NEMA	National Environment Management Authority
NFA	National Forestry Authority
NGOs	Non-Government Organizations

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
Q4	Quarter Four
RGCs	Rural Growth Centers
RWSS	Rural Water Supply and Sanitation
SCAP	Water Services Acceleration Project
SDG	Sustainable Development Goal
SDP	Sector Development Plan
SRWSSP	Support to Rural Water Supply and Sanitation Programme
STs	Small Towns
TC	Town Council
TSU	Technical Support Units
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
NSSF	National Social Security Fund
VAT	Value Added Tax
VTs	Valley Tanks
WASH	Water Sanitation and Hygiene
WES	Water and Environment Sector
WfP	Water for Production

WfPRC-E	Water for Production Regional Centre East
WfPRC-N	Water for Production Regional Centre North
WfPRC-W	Water for Production Regional Centre West
WQ	Water Quality
WSDF	Water and Sanitation Development Facility
WSDF-C	Water and Sanitation Development Facility Central
WSDF-E	Water Supply Development Facility East
WSS	Water Supply System

FOREWORD

The Government strategy this Financial Year 2019/20 is to promote import substitution and export promotion, and incentivize private sector development. It is envisioned that this will be achieved through industrialization anchored on agriculture and agro-industrialization, manufacturing, and mineral potential. This will also ensure inclusive growth and the creation of jobs, while promoting development of other key primary growth sectors.

According to findings shared by the Budget Monitoring and Accountability Unit (BMAU), majority of the sectors monitored got over 50% of their budget releases, however fair performance was noted in terms of service delivery. This is attributed to the persistent challenges of delayed procurement and poor planning which must be dealt with as the country moves to implement the third National Development Plan.

This report is produced at time when the whole world is affected by the novel coronavirus disease (COVID-19). It is prudent that the sectors devise cost effective means to ensure that their stakeholders will still benefit from the government programmes/projects.



Keith Muhakanizi

Permanent secretary and 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 1st July and 31st December, 2019. 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) 2019/20. 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 local government levels; the users/beneficiaries of the project and on site observations/verification of reported outputs in the field.

Overall Performance

The sector budget allocation for the FY 2019/20 was Ug shs 1.092.78 billion (tax arrears exclusive). The total sector releases were Ug shs 388.847 billion (35%) of the budget, while Ug shs 346.379 billion (89%) was spent, representing a good release and expenditure.

The Water and Environment Sector (WES) overall performance was fair at 60.3%, however programme performance ranged from poor to very good (37% - 95%). Poor performers were: Local Governments (37.6%), Natural Resources Management (40.4%), Rural Water Supply (44.4%), Urban Water Supply (46.5%); and Fair performers were Water for Production and Water Resources Management both at 69.7%, and Uganda National Meteorological Authority (54.5%); while the good performers were National Environment Management Authority (84.9%) and National Forestry Authority (94.9%).

Highlights of Sector Performance

Rural Water Supply and Sanitation (RWSS) Programme

The overall performance of the RWSS Programme by end of Quarter 2 was poor at 44.4%. Progress of piped systems included: Shuuku-Matsyoro in Sheema District (89%), Bukedea in Bukedea District (95%), Nyamiyonga-Katojo in Isingiro District (95%), Kabuyanda in Isingiro District (65%), Lirima II in Manafwa District (84%), Rwebisengo-Kanara in Ntoroko District (98%), Lukalu-Kabasanda in Butambala District (44%), and the mini solar powered irrigation in Kayunga stalled at 70%. Works for Lirima, Bukedea and Nyamiyonga Katojo were extended. All District Local Governments (DLGs) had initiated procurements, in a few cases works awarded and baseline studies concluded. The delayed payment of contractors' certificates slowed works especially Lukalu-Kabasanda, Bukedea, Rwebisengo-Kanara systems, and mini solar powered irrigation among others. Works for Lirima II and Lukalu-Kabasanda were affected by delayed demarcation of Bumboi-Rwakhakha road reserve and outstanding land compensations respectively.

Urban Water Supply and Sanitation (UWSS) Programme

The UWSS Programme performance was poor at 46.5%. The progress of planned systems included: Katosi Water Treatment plant in Mukono District (40%); and Katosi transmission mains (72%); upgrade of Kapeeka in Nakaseke District (less than 10%); Binyiny in Kween District (80%); Bulopa WSS in Kamuli District

(96%); Namwiwa in Kaliro District (96%); Kambuga in Kanungu District (89%); Buyamba in Rakai District (92%); Kayunga-Busana in Kayunga District (85%); Kiwoko-Butalangu in Nakaseke (90%); Agago Town Council (TC)–Paimol (85%). The Faecal Sludge Management Facility in Kiboga was under test running, while Nakasongola was at 80%.

The delayed payment of contractors (for Kayunga-Busaana) and difficulty experienced in acquisition of land affected works progress.

Water for Production (WfP) Programme

The WfP Programme performance was fair at 69.7. The works progress included: Rwengaaju Irrigation Scheme in Kabarole District (66%); Kyakayondo Small Scale Irrigation (SSI) in Kasanda District (20-30%); Ntovu SSI in Rakai District (10-20%); Opiyai SSI in Soroti District (60%); Kiryanfufu SSI in Nakaseke District (60%); Akworo SSI in Kitgum District (60%). The pending compensations and delayed delivery of changed transmission main pipes for Rwengaaju Irrigation Scheme affected works, and several contracts were extended.

Natural Resources Management (NRM) Programme

The NRM Programme performance was fair at 69.7%. Irrigation schemes had progressed as follows: Mobuku in Kasese District (60%); Ngenge in Kween District (80.8%); Doho in Butaleja District (76.3%); and Tochi in Oyam District (85.2%). However, in Doho and Tochi, cracks were observed on the ceiling of scheme buildings pointing to poor workmanship. The valley tank in Omoro was not constructed awaiting clearance from National Environment Management Authority. Heavy rains delayed works in the irrigation schemes and a section of 2.7km in Ngenge could not be accessed pending compensation.

National Meteorological Services

The National Meteorological Management Authority (UNMA) performance was fair at 54.51%. The planned land for the weather radar in Mbarara District was procured; Aviation sector supported through provision of 9,634 Terminal Aerodrome Forecasts and Flight folders out of an annual target of 19,664 to enable air navigation in and outside the country. Two seasonal forecasts were issued and translated into 35 local languages, and 52 weather stations rehabilitated. Procurement was at varying stages for specialized machinery and equipment. The National Meteorological Training School (NMTS), and UNMA lack critical substantive staff. Recruitment was affected by the absence of a Board for over two years thus affecting performance.

Water Resources Management (WRM) Programme

The WRM Programme performance was fair at 69.7%. The planned construction of five landing sites, and rehabilitation of the feeder roads were at varying levels; (Kitebere in Kagadi was at 72%, Mbegu in Hoima at 98%, Dei in Packwach at 95%, Rwenshama in Rukungiri at 99%, and Mahyoro in Kamwenge at 99%). The project office in Kabale town for Maziba Catchment was renovated and fully furnished.

Establishment, revision and implementation of six sub catchment management plans and six management committees in three catchments of Awoja, Maziba and Aswa was ongoing. A total of 356 households in Maziba, Awoja and Aswa were engaged in action planning for ecosystem conservation, climate smart agriculture and were being trained in various restoration activities and alternative income generating activities. Tree nurseries were established under Public Private Partnership in the sub catchments to support tree planting, and women groups were trained in the making of improved stoves in the three catchments of Maziba, Awoja and Aswa.

A 10-year Strategic Plan (2019-2029) and 5-year Business Plan (2019-2023) for the Water Resources Institute was prepared, while the Integrated Water Resources Development and Management plan for Albertine Graben was developed to 30%.

National Environment Management Authority

The NEMA performance was good at 84.9%. It was noted that 629 Environment and Social Impact Assessments (ESIAs) were issued. These were mainly for oil and gas waste management and provision of permits. A total of 86 cases were handled; and a review and update of the Albertine Graben Environmental Monitoring Plan (AGEMP). This tool will guide tracking the impact of oil and gas related developments on the environment in the Albertine Graben. The draft National State of Environment Report (NSOER) 2018-19 was reviewed. The District Environment Action Plan (DEAP) for oil and gas for 10 DLGs and critically degraded ecosystems in Kyoga, Nile and R. Rwizi basins were established.

National Forestry Authority (NFA)

The NFA performance was very good at 94.9%. A total of 1746ha of plantation were maintained, 469ha of commercial tree plantations established, and 2041ha established by licensed tree planters. Over 12 million seedlings were raised for sale and over 19,000kgs of seeds collected from Central Forest Reserves. Other activities included pruning, weeding and maintenance of the forests.

Implementation Challenges

- i) The non-wage recurrent is inadequate to implement both software activities and operations of the DLGs.
- ii) Delayed payment of works and over commitment resulted in none completion and extension of projects.
- iii) Lack of transport constrained monitoring in the water management zones and LGs.
- iv) Political interference hinders lawful eviction of encroachers, and demarcation of forest boundaries and illegal land titles, and encroachment on the forest land due to unclear demarcations.
- v) The DLGs lack adequate resources to support environmental activities, and experience political interference during enforcement for compliance.
- vi) Inadequate financing led to extension of Bulopa, Namwiwa, Buyamba, Kamuga, Kiwoko Butalango and Kayunga-Busaana which had extra works.

Recommendations

- i) The MWE should work in liaison with MFPED to revise the allocation formula to increase the non-wage recurrent which will improve implementation of software activities.
- ii) The MWE should seek political support especially towards enforcement of environmental laws.
- iii) The MWE should revisit their plans and scale down on planned outputs to fit in the available resources.
- iv) The MWE should prioritize the Environment and Natural Resources (ENR) sub-sector in planning to ensure protection of the resource base.



CHAPTER 1: INTRODUCTION

1.1 Background

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, “*To formulate sound economic policies, maximize revenue mobilization, 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); Industrialization; 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 2019/20. The exercise was conducted between January and February 2020.

1.2 Sector Objectives and Priorities

The sector has three broad outcomes with specific objectives contributing to the second National Development Plan (NDP 2):

- i) Improved access to safe water and sanitation facilities for rural, urban and water for production uses. The main objective in the NDP2 is to increase access to safe water supply in rural areas from 65 percent to 79 percent by 2020, in urban areas from 70 percent to 95 percent by 2020. Sanitation coverage is to improve from 69 percent to 90 percent for rural areas and 77 percent to 100 percent for urban. In water for production the NDP2 target is to increase access in the cattle corridor from 50 percent to 70 percent and those outside the cattle corridor from 20 percent to 30 percent.



- ii) Improved Water Resources Assessment, Monitoring, Planning, Regulation and Quality Management. The NDP objective is to ensure that Uganda fully utilizes its water resources for development and guarantees her water security; ensure sustainable utilization of water resources to maximize benefits for the present and future generations; support sustainable use of water resources for economic activities.
- iii) Improved weather, climate, and climatic change management, protection and restoration of environment and natural resources. The NDP2 objective is to ensure sustainable management of the environment for livelihood security, wealth creation and sustainable economic development.

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 2019. The programmes monitored were selected from Vote 019 - MWE, Vote 150 - NEMA, Vote 302 - UNMA, Vote 157 – NFA, and from Votes 501-850 Local Governments (LGs). This covered 11 out of 13 (84.6%) programmes, 34 out of 61 (55.7%) Sub-programmes, and 12 out of 134 (9%) LGs across the country (Annex 1.1).

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 FY2019/20; 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.
- Call-backs in some cases to triangulate information.

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 FY2019/20

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 outcomes)
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) There is no specific system to track donor releases and expenditures as opposed to the GoU IFMS system.
- 2) 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.
- 3) Some output activities are qualitative, without specific target figures and the sector performs based on the availability of funds, this makes it challenging for analysis.
- 4) Limited information to analyse the sector outcome target indicators which makes the available data unauthentic to determine achievements.
- 5) Some output indicators have changed overtime which makes it difficult to follow progress.
- 6) Limited sample on local governments given the limited time allocated to field monitoring and the 134 districts to be covered.



CHAPTER 3: SECTOR PERFORMANCE

3.1 Overall Sector Performance

Overall Financial Performance

The sector budget allocation for the FY 2019/20 was Ug shs 1,092.78 billion (tax arrears exclusive). The budgets, releases and expenditures per vote are reflected in table 3.1.

Table 3.1: Overall Sector Performance by 31st December 2019 (in bn Ug shs)

Vote	Budget	Release	Expenditure
MWE	931.91	337.98	306.65
UNMA	26.76	9.74	7.99
NFA	32.49	15.55	8.95
NEMA	26.05	12.66	10.59
KCCA*	16.24	*	*
DLG*	59.33	*	*
Totals	1,092.78		

Source: IFMS, PBS and Vote Q2 Performance Reports; Releases and expenditures for KCCA and DLG were not readily available at the time of writing this report

Overall Sector Performance

The Water and Environment Sector performance was fair at 60.3%, although a number of programmes exhibited poor performance attaining below 50% of the semi-annual targets.

Good performers were NEMA and NFA, while fair performers included: Water for Production, Water Resources Management and UNMA. Poor performers were Rural Water Supply, Urban Water Supply, Natural Resources Management, and Local Governments (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. Five large irrigation schemes and small scale irrigation systems were under construction. All districts had initiated procurements for works, whereas in Manafwa, Omoro and Kaliro drilling had commenced.

**Table 3.2: The Overall Sector Performance by 31st December 2019**

Vote/Programme	Weighted Score (%)	Remarks
Vote 019 MWE		
Rural Water Supply and Sanitation	44.4	Poor
Urban Water Supply and Sanitation	46.5	Poor
Water For Production	69.7	Fair
Water Resources Management	69.7	Fair
Natural Resources Management	40.4	Poor
Votes 501-850		
LGs (Water and sanitation conditional grants)	37.6	Poor
Vote 150 NEMA		
Environmental Management	84.9	Good
Vote 157 NFA		
Forestry Management	94.9	Very Good
Vote 302 UNMA		
National Meteorological Services	54.5	Fair
Average Overall Sector Performance	60.3	Fair

Source: Authors compilation

3.2 Ministry of Water and Environment

The Ministry of Water and Environment (MWE) is responsible for sound management and sustainable utilization 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 increase water supply coverage in rural areas while ensuring equity through providing at least each village with one safe and clean water source and where technically feasible piped water options (gravity flow systems, solar pumped boreholes and surface treated systems) will be considered.
2. To promote improved sanitation services in rural and urban areas including the promotion of hand washing with soap.
3. To increase water supplies and sewerage services in small towns, large towns, municipalities and cities focusing on the areas earmarked for industrial parks.



4. To increase provision of water for production through development of multi-purpose bulk water storage and supply systems with the involvement of all stakeholders as appropriate.
5. To improve water resources management to ensure adequate quantity and quality for the various uses focusing on compliance to existing laws and regulations on the use of the resources at all levels.
6. To increase the sustainable use of the environment and natural resources through restoration and to maintain the hitherto degraded ecosystems and undertake massive nationwide tree planting.
7. To promote the wise use of wetlands through implementation of approved management plans developed in a participatory manner.
8. To increase the functionality and usage of meteorological information to support sector specific early warning to combat the effects of climate change and disaster risks.
9. To develop sector capacity throughout all the institutions and support other stakeholders in the sector.
10. To review, develop and reform institutional frameworks, laws, policies and regulations to ensure fast and effective delivery of services.
11. To promote gender and equity considerations and increase the fight against HIV/AIDS through the sector programmes.

The vote has seven programmes namely: i) Rural Water Supply and Sanitation, ii) Urban Water Supply and Sanitation, iii) Water for Production, iv) Water Resources Management, v) Natural Resources Management, vi) Weather, Climate and Climate Change, and vii) Policy, Planning and 61 sub-programmes.

The semi-annual monitoring activity focused on five programmes: Rural Water Supply and Sanitation; Urban Water Supply and Sanitation; Water for Production; Water Resources Management; and Natural Resources Management, and 28 sub-programmes as presented below:

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.

The programme is implementing four development sub programmes in the financial year and all were monitored. Findings from the monitoring exercise are highlighted below:

3.2.1.1 Support to Rural Water Supply Project

This sub-programme is a mechanism through which the MWE centrally implements water supply services for Rural Growth Centers (RGCs) with population between 1,500-5,000 people, as the capacity of the Local Governments (LGs) to implement big projects is being built. The sub-programme commenced on 2nd January 2001 and ended 30th June 2019.

The sub-programme objective is to: Support the LGs, Non-Governmental Organisations (NGOs), humanitarian organizations, and Community Based Organisations (CBOs) to build capacity for efficient and effective service delivery in the water and sanitation sub-sector.



Financial Performance

The approved annual budget for the FY 2019/20 was Ug shs 9,373,717,000, of which Ug shs 5,846,746,000 (62%) was released, and Ug shs 4,814,422,000 (82% of the release) spent by 31st December 2019.

Physical Performance

The key planned outputs under this sub-programme were to: construct two Water Supply Systems (WSS) of Shuuku-Matsyoro up to 100%, and Kahama II up to 70% completion by June 2020; Establish management structures for the two WSS; Promote sanitation and hygiene within the benefitting communities; and Provision of technical support to District Local Governments (DLGs).

The performance of the sub-programme was poor. By December 2019, Shuuku-Matsyoro attained 89% completion from 74.5% in FY 2018/19; Kahama II attained 15% completion from 10% in FY 2018/19. Shuuku-Matsyoro WSS was monitored to assess progress and below are the findings:

The initial end date for construction of Shuuku-Matsyoro was 5th August 2019, but an extension up to 5th February 2020 was given. Progress was generally slow due to land acquisition challenges whereby delayed compensations led to work interruptions. The treatment plant was relocated from the original site after failure to agree on compensation amounts with the land owner hence the redesign of the treatment plant to suit the new location further delayed works.

Substantially completed components included the treatment plant, intake works, 500m³ main power extension, sanitation facilities (water borne toilets and institutional VIP toilets) and scheme buildings (offices, staff houses, guard house).

Pending works included commissioning of the power line, service connections for 1,000 consumers, electro mechanical installations both at the intake and treatment plant, painting of all structures and landscaping.



L: An Aerator; C: Rapid sand filter; and R: 500m³ main reservoir tank of Shuuku-Matsyoro GFS in Sheema District



L: Sludge drying beds; C: VIP toilet; and R: Power extension to the treatment plant of Shuuku-Matsyoro GFS in Sheema District



The establishment of management structures is a continuous process throughout the construction period, of which the project software teams were mobilizing and sensitizing district officials and communities. But there were no committees established yet.

Sanitation and hygiene promotion were undertaken through awareness activities, and household sanitation assessments in order to qualify for a water connection. For Shuuku-Matsyoro WSS, these were done in five benefiting sub-counties i.e. Rugarama, Kyangyeni, Kakindo, Kashozi, and Shuuku.

Technical Support to LGs was provided by the Technical Support Units (TSUs) especially during planning and reporting. This was evidenced from the 12 LGs visited that all confessed to have been supported. However, most of the support is on a demand driven basis by the districts.

3.2.1.2 Solar Powered Mini-Piped Water Schemes in Rural Areas

It's estimated that over 80% of Uganda's population resides in rural areas¹ that are characterized by Rural Growth Centers (RGCs) with populations ranging from 1,500 to 5,000 persons. The predominant safe water supply technology in rural areas is hand pump boreholes 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. The sub-programme commenced in July 2015 and the ends in June 2020.

The main objective of the sub-programme is to upgrade the service levels of safe water supply in rural communities thereby reducing risks related to water borne diseases and improve the livelihood of the rural communities.

Financial Performance

The funding to the sub-programme during the FY was from only GoU. The annual approved budget in FY 2019/20 was Ug shs 39,603,283,000, of which Ug shs 18,381,116,000 (46%) was released and Ug shs 12,841,046,000 (70% of the release) spent by 31st December 2019.

Physical Performance

The key planned outputs under this sub-programme included: i) Back up support for Operation and Maintenance (O&M) of rural water provided; ii) Sanitation and hygiene education promoted; iii) Water Supply Systems (WSS) constructed (Kabuyanda WSS in Isingiro District to 100%, Kanyabwanga WSS in Mitooma District to 50%, Mbunga-Nyakazinga GFS in Kasese to 30%, 30 mini solar powered irrigation schemes countrywide to 80%, 40 mini solar powered piped water systems in areas with low access to 70%, Nyamiyonga-Katojo in Isingiro District to 100% and Lirima II in Manafwa District to 100%); iv) Point water sources constructed (285 hand pumps, 100 production wells, 70 large diameter wells and 400 chronically broken down boreholes rehabilitated).

The sub-programme performance was poor. Twenty (20) sites for mini solar powered water systems were handed over to the contractor but construction was yet to commence. Kanyabwanga WSS in Mitooma District and Mbunga-Nyakazinga WSS in Kasese District had not commenced construction as planned. The schemes were still under design stage. Progress on the 30 mini solar powered irrigation schemes stagnated at 25%. There were no works ongoing for most sites due to limited cash flows.

¹ Uganda Bureau of Statistics



Kabuyanda WSS was constructed to 65%, Nyamiyonga-Katojo to 95% from 85% in FY 2018/19 and Lirima constructed to 84% from 65% in FY 2018/19. Despite attaining substantial physical progress, both Nyamiyonga-Katojo and Lirima II have had slow progress arising mainly from land acquisition challenges and limited cashflows. Three WSS were monitored to assess progress:

i. Nyamiyonga-Katojo Water Supply System in Isingiro District at 95% physical progress

Within the half year period, the scheme progressed to 95% from 85% at the end of FY 2018/19. Activities done included power extensions to the pump stations and booster station, excavations and laying of intensification lines and service lines, flooring of pump station structures such as the attendants' houses with terrazzo. Cracks were observed on the ceiling of the attendants' house at the Nyamiyonga source. Major delays were experienced on this scheme due to limited cash flows.



L: Transformer at the pump station; C: Excavation for the intensification lines; and R: Terrazzo flooring at the pump house of Nyamiyonga-Katojo WSS in Isingiro District

ii. Kabuyanda WSS in Isingiro District at 65% physical progress

The contract period is from September 2018 to September 2020 therefore works were on schedule. Completed works included: the water office, public water borne toilet at the sub-county headquarters and at Kabuyanda HC IV. Ongoing works included: the distribution mains of which about 80km was laid, and reservoir tank at blinding level of the foundation. Pending works included: pump station works, transmission mains, service connections 1,000 consumers and the electro mechanical installations. The quality of work was very good.



L: Water office; C: Public water borne toilet; and R: Blinding at the reservoir tank site of Kabuyanda WSS in Isingiro District



iii. Lirima II spanning through the districts of Manafwa, Mbale and Tororo at 84% physical progress

The scheme progressed from 65% to 84% within the first half of FY 2019/20. Ongoing works within the period included: Construction of a 22 stance public water borne toilet at Bugobero HC IV, intensification lines, and laying of service lines at least 600 tap stands were constructed. The construction of Lirima II was delayed. Works commenced on 22nd May 2017 and was supposed to end on 22nd May 2019 but a total extension of 11 months was given thus the new end date is 22nd April 2020. Part of the delays were due to works interruptions by the communities as they demanded compensation, delayed hand over of component sites (over six months) to the contractor, and the road works of Bumboi-Rwakhakha since the water works had to wait for road reserve demarcation in order to commence pipe laying.



L: 22 stance water borne toilet; and R: Busuku concrete reservoir tank of Lirima II WSS in Manafwa District

For the construction of point water sources, 62 out of 285 hand pumps, and 21 out of 100 production wells were drilled, and 48 out of 400 chronically broken down boreholes were rehabilitated.

3.2.1.3 Piped Water in Rural Areas

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 the government's manifesto pronouncements and Presidential pledges. The sub-programme develops and promotes appropriate technologies for water and sanitation in rural areas such as the 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 1st July 2015 to 30th June 2018 was extended to 30th 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 enrolment 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.

Financial performance

The annual approved budget in FY 2019/20 was Ug shs 60,477,547,000, of which Ug shs 14,344,273,000 (23.7%) was released and Ug shs 9,381,844,000 (65.4% of the release) spent by end of December 2019.

Physical Performance

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 performance of the sub-programme was fair. By end of December 2019, Bukedea Gravity Flow Scheme (GFS) covering Bukedea, Bulambuli, and Kapchorwa progressed to 90% from 70.3% in FY 2018/19, while Rwebisengo-Kanara in Ntoroko District progressed to 98% from 90% and Lukalu-Kabasanda in Butambala progressed to 44% from 40% in the previous FY. The challenge of land acquisition continues to be the biggest issue affecting works progress in all the schemes under construction. Orom WSS in Kitgum District attained 17% physical progress and the highway sanitation in Kiruhura was constructed to 21%. Three WSS were monitored as listed below:

i. Bukedea WSS in Bukedea/Bulambuli/Kapchorwa districts

The scheme progressed to 90% from 70.3% within the first half of FY 2019/20. Completed works included the raw water main, transmission and distribution mains, public water borne toilets at Bulambuli and Bukedea and all four reservoir tanks. The three water offices were substantially complete pending furnishing. Works were ongoing at the treatment plant, intake, and intensification lines. Service connections had not commenced. The quality of works especially at the treatment plant was good. Some of the implementation challenges were heavy rains that caused flooding rendering sites inaccessible hence causing delays, and delayed payments to the contractor. By 13th January 2020, financial progress was 69% against a physical progress of 90%.



L: Flocculator/Clarifier; R: Rapid sand filter at the treatment plant of Bukedea WSS in Kapchorwa District



ii. Rwebisengo-Kanara WSS in Ntoroko District

The scheme progressed to 98% from 90% within the first half of FY 2019/20. Most works were completed. These included: intake, raw water main, treatment plant, transmission and distribution mains in Kanara Town Council, water office and water borne toilets in Kanara and Karugutu town councils. About 415 connections were done in Kanara Town Council, with some pending water meters. In Kanara sub-county, service connections were pending household surveys.



L: Treatment plant control unit; and R: Pump installed at the treatment plant of Rwebisengo-Kanara WSS in Ntoroko District



L: Chlorine dosing unit at the treatment plant; and R: A service connection at Kanara Town Council

iii. Lukalu-Kabasanda WSS in Butambala District

The scheme progressed to 44% from 40% within the first half of FY 2019/20. Works were ongoing and the scheme components were at various levels. There were two pump stations and the civil structures (pump house, guard house, chlorine house and ecosan toilet) at each station were constructed. The source was developed and the source area well protected. Compensation of crops to the land owner was pending. Other structures constructed were the public sanitation facility and water office.



Pending works included the reservoir tanks, booster station, service connections and electro mechanical installations. The contractors' construction period was 15th November 2018 to 15th November 2019. By January 2020, the contract period had elapsed and an extension of up to 30th June 2020 was granted. Delays were due to outstanding compensations especially at the reservoir tank sites, spring source and pumpstations. The contractor was denied access to these sites for some time.

Other implementation challenges

- Obstacles along the pipeline routes like houses that required compensation.
- Road crossing along Kabasanda-Mityana road. Seeking authorisation from the Uganda National Roads Authority (UNRA) was taking long.
- Delayed payment of contractors' certificates.



L: Collection tank at the spring source; C: Public water borne toilet; and R: Water office of Lukalu-Kabasanda WSS in Butambala District

Back up support for O&M of the WSS under construction continued through stakeholder meetings but the management committees for O&M of the schemes were not yet in place.

Sanitation and hygiene were promoted during the assessment of households to qualify for water connections.

Under research and development of appropriate water and sanitation technologies, men and women in Kayunga-Busana (Kayunga District) were trained in construction of 100,000 liter stone masonry rainwater harvesting tanks. Students of Kibuzi Secondary School in Kayunga District were trained in production of low cost sanitary pads and liquid detergent.

3.1.2.4 Integrated Water Resources Management and Development Project (IWMDP)

The Government has undertaken reforms aimed at ensuring integrated and sustainable management and development of water resources. Hence, an appropriate policy and institutional framework for Integrated Water Resources Management (IWRM) has been established. A catchment management approach has been adopted with water resources planning and development aligned along five hydrological/ water management zones. Its objective is to improve urban and rural water supply and sanitation services and enhance water management capacity.

The project is implemented in four programmes: Rural Water Supply, Urban Water Supply, Water Resources Management, and Policy planning and Support Services. The project duration is July 2019 to June 2024.



Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 12,315,200,000, of which Ug shs 840,000,000 (6.8%) was released and Ug shs 87,378,000 (10.4% of the release) spent by end of December 2019.

Physical Performance

The key planned outputs in FY 2019/20 are: Sanitation and hygiene education promoted; and two water supply systems of Bitsya in Buhweju District, and Namugasani in Kasese District designed and constructed.

By December 2019, the project activities were in preliminary stages. The shortlisted consultancy firms for redesign of the two water schemes were submitted to the World Bank for a no-objection. Consequently promotion of sanitation and hygiene had not commenced. The Resettlement Action Plan (RAP) for the two schemes was also submitted to the World Bank for review and approval. However by December 2019, the project team was still awaiting the no-objection notice from the World Bank.

Table 3.3 gives a summary of the performance of each output in the programme.

Table 3.3: Performance of Rural Water Supply and Sanitation Programme by December 2019

Output	Annual Budget (000 Ug shs)	Cum. Release (000 Ug shs)	Annual Target (%)	Achieved Quantity (%)	Weighted Score (%)	Remark
Back up support for O&M of Rural Water	6,366,210	2,455,243	100	11.50	1.6	The software teams continued with mobilization and sensitization to enable selection and establishment of O&M management committees for schemes under construction.
Administration and management services	700,717	376,304	100	8.33	0.1	Low achievement on output as targets were not stated.
Promotion of sanitation and hygiene education	1,597,000	522,663	100	21.95	0.9	Mobilization and sensitization of communities and district officials in the beneficiary towns of schemes under construction were undertaken.
Research and development of appropriate water and sanitation technologies	500,000	227,400	100	0.00	0.0	The target activities under this output were not achieved.



Output	Annual Budget (000 Ug shs)	Cum. Release (000 Ug shs)	Annual Target (%)	Achieved Quantity (%)	Weighted Score (%)	Remark
Monitoring and capacity building of LGs, NGOs and CBOs	2,275,000	598,167	100	49.00	1.9	Water schemes and boreholes under construction were monitored through site meetings. DLGs were also monitored by the Technical Support Units.
Acquisition of land by government	800,000	386,000	100	0.00	0.00	Land was not acquired during the half year.
Construction of Piped Water Supply Systems (Rural)	80,030,820	18,846,358	100	12	33.5	Schemes under construction were Kahama II 15%, Shuuku-Matsyoro 89%, Kabuyanda 65%, Lirima II 84%, Nyamiyonga-Katojo 95%, Bukedea 90%, Rwebisengo-Kanara 98%, Lukalu-Kabasanda 44%, Orom 17%.
Point Water Sources constructed	25,500,000	12,000,000	100	14.30	6.4	Drilling of point water sources was ongoing with 62 hand pumped wells, 21 production wells and 48 borehole rehabilitations done.
Programme Performance (Outputs)					44.4	Poor Performance

Source: MWE and Field findings

The overall programme performance by half year was poor (44.4%). This was due to very slow progress on the water supply schemes. Although some of them show substantial physical progress, the percentage increase within the half year period was low. Schemes such as Bukedea, Rwebisengo-Kanara, Lirima II, Nyamiyonga-Katojo have been characterized by multiple extensions beyond their original completion dates. This was mainly due to land acquisition challenges and lack of final designs for the schemes before commencement of works. Progress on the micro irrigation solar pumped schemes stagnated at 25% due to limited cash flows.

Mobilization and sensitization of communities to enable establishment of O&M committees, and promotion of sanitation and hygiene education in the implementation towns continued. Noted however that was the outputs did not have clear set targets.

Recommendation

- The MWE should plan and adequately budget for land compensation to avoid delays.



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.

The programme implemented 13 development sub-programmes in the FY, of which 10 were assessed. Performance of the sub-programmes assessed is detailed below:

3.2.2.1 Protection of Lake Victoria-Kampala Sanitation Programme

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

- 1) Nakivubo wetland to serve the central business district of Kampala.
- 2) Kinawataka wetland to serve the eastern parts of Kampala particularly Nakawa Industrial Area, Naguru, Kyambogo and neighboring areas.
- 3) Lubigi wetland to serve the north and north western parts of the greater Kampala namely Mulago, Katanga, parts of Makerere and Kawempe, Nansana, Namungona, and Bwaise among others. The project start date was 31st March, 2010 and ended on 30th June, 2018. The project period was extended to 30th September 2019.

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.

Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 67,750,355,000, of which Ug shs 42,989,295,000 (63.5%) was released and spent by end of December 2019.

Physical Performance

The key outputs planned in the FY were: Nakivubo Waste Water Treatment Plant Project completed; Kinawataka pretreatment and pumping station completed; and Nakivubo and Kinawataka sewers completed.

The Kinawataka pretreatment and pumping station and Nakivubo and Kinawataka sewers were completed in FY 2018/19. By December 2019, they were undergoing monitoring for defects. The waste water treatment plant in Bugolobi was at 99% physical progress. Monitoring of system operations, testing and commissioning of the plant were ongoing.

The sub-programme 1188 is expected to close this FY, however, pending payments on the contractor's certificate amount to Ug shs 24.4 billion and claims on interest for delayed payments cost Ug shs 20 billion.

3.3.2.2 Kampala Water Lake Victoria Water and Sanitation Project

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 7th January 2011 to 30th June 2019.



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.

Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 3,000,000,000, of which Ug shs 49,577,584,000 (1652.6%) was released and spent by end of December 2019.

Physical Performance

The planned output was construction of piped water supply systems. These included the Katosi-Kampala transmission main, Katosi-Kampala treatment plant, and the water and sanitation infrastructure for the informal settlements. Both the transmission mains and the treatment plant were monitored and findings are below:

The overall physical progress was estimated at 40%. A total of 39km out of 54km of the transmission mains were laid. The booster station was constructed but pending the electromechanical installations. For the components of the treatment plant, casting of the walls and columns for the reservoir tanks in Sonde and in Nsumba were ongoing. Construction of other components such as the raw water pump station, sand filters, treated water pump station, backwash tank were also ongoing. Electrical installations were being done in the staff houses. Construction of infrastructure for the informal settlements were awaiting compensation of project affected persons (PAPs).



L-R: The booster station; and Sonde reservoir tank of the Katosi-Kampala water treatment plant in Wakiso District



L-R: Staff houses; and casting wall for one of the Nsumba reservoir tanks of the Katosi-Kampala water treatment plant in Mukono District



3.2.2.3 Water Services Acceleration Project (SCAP)

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 is from July 2017 to June 2020.

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

Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 52,600,000,000, of which Ug shs 37,500,000,000 (71.3%) was released spent by end of December 2019.

Physical Performance

The key planned output was the construction of piped water supply system. This involved upgrade of Kapeeka Water Supply System, and expansion, upgrade and rehabilitation of existing NWSC secondary and tertiary water networks countrywide.

By December 2019, the works had just commenced at less than 5% physical progress. The contract to commence works was signed in October 2019. Ground explorations to establish soil properties were ongoing at the site where the structures for the new treatment plant were to be constructed. The construction of the bulk transfer main was at 80% completion. This is for the transfer of water from the treatment plant to Kapeeka Industrial Park.



L-R: Bulk water main; and Soil exploration for new water treatment facility of Kapeeka Water Supply System in Nakaseke District

3.2.2.4 Water and Sanitation Development Facility - East-Phase II

The Water and Sanitation Development Facility – East Phase II is a successor project of the phase I that was implemented from July 2008 to June 2019. The project was extended cognizant of the need to continue with water and sanitation interventions in Eastern and North Eastern Uganda. The rapid increase in urbanization and urban populations pose a big challenge on the existing water and sanitation facilities, some of which are no longer reliable due to their age and poor operation and maintenance. Hence the phase II project shall continue investments in water and sanitation facilities within the period July 2019 to June 2024.



The main objective is to ensure that access to safe and affordable water supply in urban areas increases from 73% to 100% by 2020 in order to progressively fast track achievement of coverage for all.

Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 11,743,000,000, of which Ug shs 6,385,300,000(54.4%) was released and Ug shs 6,377,676,000(99.9% of the release) spent by 31st December 2019.

Physical Performance

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, and piped water supply systems constructed. Three water supply systems of Binyiny in Kween District, Bulopa in Kamuli District, and Namwiwa in Kaliro District were monitored to assess performance.



A reservoir tank of Binyiny Water Supply System in Kween District

i. Binyiny Water Supply System

Binyiny WSS was at a physical progress of 60%. Works done included the transmission mains (9.5km out of 10km laid), distribution mains (3km out of 15km laid), installation of the reservoir tank which was pending fittings, and the raw water main was laid. Pending works included the treatment plant and service connections.

ii. Bulopa Water Supply System

The scheme was substantially completed at an overall physical progress of 98%. Components in place included the pump station (pump house, production well, ecosan toilet, guard house, electricity connection and a stand by generator), the reservoir tank, three PSP connections, 246

private connections out of the targeted 300, and a furnished water office.

Issues observed: the generator at the pump station lacked a battery hence was non-functional; and the quality of chairs in the water office was poor as some had stated breaking.



L-R: Pump station showing pump house/generator house, ecosan toilet, guard house, and power connection; and water office of Bulopa WSS in Kamuli District



L-R: Reservoir tank and chlorine house; and a private tap stand of Bulopa WSS in Kamuli District

iii. Namwiwa Water Supply System

The overall physical progress of the scheme was 98%. Existing structures included the intake, the treatment plant (back wash tank, aerator, coagulation/flocculation tank, sedimentation tank, rapid sand filter and clear water tank), the reservoir tank, public stand posts and private service connections.



L-R: Intake structure; and treatment plant structures of Namwiwa WSS in Kaliro District



L-R: Reservoir tank; and a private tap stand of Namwiwa WSS in Kaliro District



3.2.2.5 Water and Sanitation Development Facility - South Western-Phase II

The Water and Sanitation Development Facility – South Western Phase II is a successor project of the phase I that was implemented from July 2008 to June 2019. The rapid increase in urbanization and urban populations is attributed to: 1) The 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 Centres 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:

- ✓ Development of piped water supply systems in the targeted STs/RGCs that are safe, adequate, reliable and accessible.
- ✓ 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).

Financial Performance

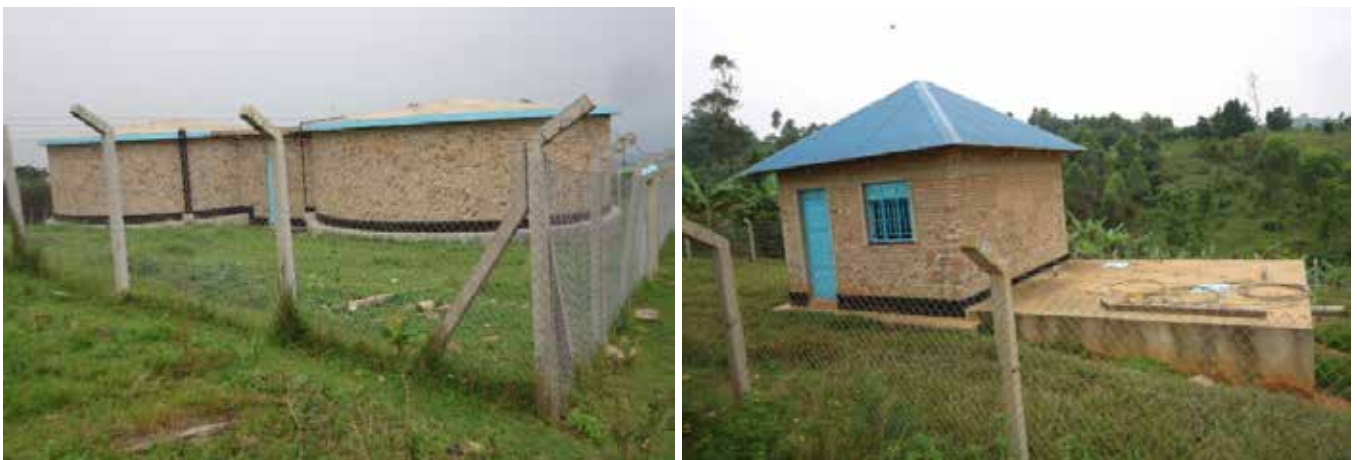
The approved annual budget for the FY 2019/20 is Ug shs 10,169,000,000, of which Ug shs 8,611,163,000(84.7%) was released and Ug shs 8,606,782,000(99.9% of the release) spent by end of December 2019.

Physical Performance

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, and piped WSSs constructed. Two WSSs were monitored and findings are below:

i. Kambuga Water Supply System in Kanungu District

The scheme was at 98% overall physical progress. Components in place included the reservoir tanks, booster station and collection tank, transmission and distribution mains. Pending works included electromechanical installations and fittings.



L-R: Twin reservoir tanks; and booster station of Kambuga WWW in Kanungu District



ii. Buyamba Water Supply System in Rakai District

The scheme was constructed to 98% overall physical progress. Components in place included the treatment plant, concrete reservoir tank, public water kiosks, water office, institutional VIP latrines and approximately 200 private connections made. Although substantial progress was realized, the scheme has dragged for about four years since commencement. Construction commenced on 19th August 2016 and several extensions were made of which the current end date was 30th March 2020. Part of the challenge was due to end of financing from the European Union to the sub-programme in November 2017.



L-R: Production borehole; and surface pumps of Buyamba Water Supply System in Rakai District



L-R: Twin reservoir tank; and a private service tap of Buyamba Water Supply System in Rakai District

3.2.2.6 Strategic Towns Water Supply and Sanitation Project (STWSSP)

The overall objective of the project is to support the governments' efforts to achieve sustainable provision of safe water and hygienic sanitation, based on management responsibility and ownership by users to 90% of the urban population by the year 2022, with improved resilience to Climate change effects. The project period is from July 2019 to June 2024.



Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 26,844,256,000, of which Ug shs 507,500,000 (1.9%) was released and Ug shs 431,489,000(85% of the release) spent by end of December 2019.

Physical Performance

The key output planned was to construct water supply systems in three project towns of Nakasongola, Dokolo and Buikwe.

By December 2019, the procurement process for the construction of Dokolo and Kayunga-Busaana water supply systems had commenced. However, advertising for consultants and contractors was awaiting approvals (No Objection) from Africa Development Bank (AfDB).

3.2.2.7 Integrated Water Resources Management and Development Project (IWMDP)

The Government of Uganda (GoU) has for more than a decade undertaken reforms aimed at ensuring integrated and sustainable management and development of water resources. As part of this process, an appropriate policy and institutional framework for integrated water resources management (IWRM) has been established, to be implemented from July 2019-June 2024.

The country has adopted a catchment management approach with water resources planning and development aligned along five hydrological/ water management zones (WMZ). Catchment Management Plans were developed that guide interventions by GoU and development partners, and present opportunities for coordinated and informed water resources development. The project objective is to improve urban and rural water supply and sanitation services and enhance water management capacity.

Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 146,918,194,000, of which Ug shs 933,560,000(0.6%) was released and Ug shs 427,494,000(45.8% of the release) spent by 31st December 2019.

Physical Performance

The key planned output was the construction of piped water supply systems (Busia, Namasale, Namungalwe-Kaliro, Rwashamaire, and Naymununka up to 20% physical progress).

By December 2019, procurement was ongoing (evaluation of technical proposals for consultancy for construction supervision completed and submitted to the World Bank for review and approval. Tender documents prepared for works and submitted to the World Bank for review and approval for Busia).

3.2.2.8 South Western Cluster (SWC) Project

In an effort to comply with expectations of the Sustainable Development Goals (SDGs), NDPII, Vision 2040, and Government 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 RGCs 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.



Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 52,341,361,000, of which Ug shs 12,300,000,000 (23.5%) was released and Ug shs 6,903,118,000 (56% of the release) spent by end of December 2019.

Physical Performance

The key output was piped water systems constructed (Kagera, Ruharo and Nabajjuzi water treatment plants in Mbarara and Masaka rehabilitated). By December 2019, the works were undergoing design review.

3.2.2.9 Water and Sanitation Development Facility Central - Phase II

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 centres, 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, of which only 50 were prioritized for implementation during WSSP I (2012-2017). To-date 18 new towns and 8 rehabilitated towns water systems have been implemented. With the current urbanization trends, new urban centres have sprung which all 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.

Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 51,142,400,000, of which Ug shs 13,801,500,000 (27%) was released and Ug shs 13,795,743,000(99% of the release) spent by 31st December 2019.

Physical Performance

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, and piped water supply systems constructed. Two water supply systems were monitored and findings are below:

i. Kayunga-Busana Water Supply System in Kayunga District

The overall physical progress was 85% from 82% at end of June 2019. There was very minimal progress. The project has dragged way beyond its initial time frame. Works commenced in September 2017 and should have been completed by August 2018, however several extensions were made and the intended end date was March 2020. Progress was affected by changes in design especially at the intake to allow for an upgrade that will accommodate phase II works. Secondly progress was slow due to the limited cash flows. Components in place included: the intake which was pending electromechanical installations; the pump house installed with pumps and control unit; clear water tank; reservoir; chlorine house; and the treatment plant structures i.e. collection tank, flocculator, sedimentation tank, rapid sand filter, sludge drying bed.



L-R: The intake structure; and the pumps control unit of Kayunga-Busana Water Supply System in Kayunga District

ii. Kiwoko-Butalangu Water Supply System in Nakaseke District

The overall physical progress of the scheme was 90% from 80% at end of the previous FY. Components in place included: pump station, office block, reservoir tanks, public water borne toilets and about 320 private connections. The quality of work was good.



L-R: The water office; and pumps and pump control units of Kiwoko-Butalangu Water Supply System in Nakaseke District



L-R: A stance for persons with disability (PWD) stance; and a private service tap of Kiwoko-Butalangu Water Supply System in Nakaseke District



3.2.2.10 Water and Sanitation Development Facility North - Phase II

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

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

Financial Performance

The approved annual budget for the FY 2019/20 is Ug shs 26,740,100,000, of which Ug shs 6,745,999,000 (25.2%) was released and Ug shs 5,652,093,000 (83.8% of the release) spent by end of December 2019.

Physical Performance

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, and piped water supply systems constructed. One water supply system was monitored and findings are below:

i. Agago Town Council Water Supply System in Agago District

The overall physical progress of the scheme was 85% from 45% at end of June 2019. The pump station (consisting of the pump house, solar array, grid power connection, guard house), water office, reservoir tank, chlorine house (was yet to be furnished), institutional VIP latrines were in place. Service connections were ongoing so far 49 out of 300 connections were done.



L-R: Pump house and generator house; VIP latrine of Agago Town Council Water Supply System in Agago District



L-R: Reservoir tank; and a private service connection of Agago Town Council Water Supply System in Agago District

Table 3.4 provides a summary of the programme performance. The overall physical performance was poor at 46.5%. Slow progress on the construction of water schemes was observed especially under the WSDFs.

Table 3.4: Performance of the Urban Water Supply and Sanitation Programme by December 2019

Outputs	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target (%)	Cum. Achieved Quantity (%)	Weighted Score (%)
Administration and Management Support	13,696,748	5,374,909	100	79.8	2.9
Policies, Plans, standards and regulations developed	532,600	162,300	100	57.5	0.1
Backup support for Operation and Maintenance	1,444,775	613,288	100	28.5	0.2
Improved sanitation services and hygiene	4,132,000	809,000	100	41.8	0.9
Monitoring, Supervision, Capacity building for Urban Authorities and Private Operators	2,082,300	1,007,650	100	43.3	0.4
Acquisition of land by Government	1,490,000	652,500	100	29.6	0.2
Government Buildings and Administrative Infrastructure	2,500,000	1,350,000	100	33.3	0.3
Purchase of Office and ICT Equipment, including Software	887,000	390,150	100	51.0	0.2



Outputs	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target (%)	Cum. Achieved Quantity (%)	Weighted Score (%)
Purchase of Specialized Machinery & Equipment	780,050	421,000	100	38.3	0.1
Purchase of Office and Residential Furniture and Fittings	800,000	277,525	100	5.0	0.02
Construction of Piped Water Supply Systems	361,775,922	102,622,221	100	14.0	38.2
Energy installation for pumped water supply schemes	250,000	250,000	100	0.0	0.0
Construction of Sanitation Facilities	76,652,805	44,691,795	100	10.3	2.9
Programme Performance (Outputs)					46.5 (Poor performance)

Source: MWE and Field Findings

3.2.3 Water for Production (WfP) Programme

This programme is mandated to develop and promote development and construction of water for production facilities as a driver for socio-economic development, modernize 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.

The WfP programme implemented five sub-programmes in the FY, of which four sub-programmes namely: Water for Production; Water for Production Regional Center North; Water for Production Regional Center East; and Water for Production Regional Center West were monitored. Findings are hereafter:

3.2.3.1 Water for Production Regional Center-North

The Water for Production Regional Centre-North is one of the decentralized regional centres of MWE with offices located in Lira District. The regional centre was formed to address the increase in demand for rehabilitation and construction of WfP facilities and irrigation schemes in Northern and West Nile regions of Uganda. The sub-programme period is 1st July 2016 to 30th June 2021. The objective is to improve the quality of life and livelihoods of the population through provision of water for productive use in irrigation, livestock, domestic, aquaculture and rural industry.

Financial performance

The annual approved budget is Ug shs 22,126,960,000, of which Ug shs 14,913,297,000(67.4%) was released and Ug shs 14,892,222,000(99.8%) spent by end of December 2019.

Physical Performance

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



The performance of sub-programme was fair at 54.4%. Achievements on the key planned outputs were as follows:

Activities supervised and monitored: The small scale irrigation schemes and valley tanks under construction in the Northern and West Nile regions were supervised and monitored. Monitoring of older facilities was done based on whether the community reported an issue.

Sustainable water for production management systems established: Discussions were ongoing with Pakwach District for the implementation of catchment protection and management around completed facilities. Farmers' capacity built in best agronomic practices in 20 out of 25 small scale irrigation schemes. Procurement of a consultant to develop information, education and communication (IEC) materials for O&M of facilities was ongoing. Procurement of consultant to establish management committees for small scale irrigation was not yet initiated. Revitalisation of water user committees for six valley tanks was ongoing.

Water surface reservoirs constructed: Out of eight valley tanks planned, six were under construction. Out of the 30 small scale irrigation schemes planned, one was completed and eight were under construction. Three facilities were sampled for monitoring and findings were as follows:

- i) A valley tank in Omoro District: By February 2020, construction of this valley tank was on hold pending environmental clearance from NEMA.
- ii) Akworo Small Scale irrigation scheme in Kitgum District: Overall physical progress was 75%. Structures installed/constructed were: The pump, pump house, storage reservoirs, part of drip lines and plumbing works. Key pending works were the cattle troughs, toilets and continuation with laying of drip lines and plumbing. The farm was divided into plots given to 16 farmer groups. Nursery was prepared containing onions, tomatoes, green pepper and watermelons. Only about four farmers groups were preparing their plots. During the months of October-December 2019, works had stalled for three months due to flooding as a result of the heavy rains.



L-R: Tomatoes in the nursery bed; a plot laid with drip lines at Akworo Small Scale Irrigation Scheme in Kitgum District

- iii) Kiryanfufu Small Scale irrigation scheme in Nakaseke District: This scheme was complete. The source, reservoirs, VIP latrine, fencing and laying of the drip lines were completed. The quality of work was poor as there were cracks on the sanitation facility and the door of the storage unit was broken off from the door frame at the time of inspection. About 15 acres of land was acquired for farming. The scheme was irrigating avocados as opposed to the intended purpose of irrigating faster maturing high value crops such as vegetables. Community participation in the project seemed to be limited as there were no fields prepared by the community for cultivation.



3.2.3.2 Water for Production Regional Center-East

The Water for Production Regional Center-East started its operations on 1st July 2016 and is expected to end on 30th June 2021. The sub-programme is one of the mechanisms through which the MWE decentralized the operations of the Water for Production Department to regional centers. The eastern center office is located in Mbale District, while its operations cover Eastern Uganda and Karamoja sub-region.

The sub-programme objectives are to: i) Construct valley tanks, earth dams and modern irrigation systems, ii) Develop community based approach for operation and maintenance of water for production facilities to enhance sustainability.

Financial performance

The annual approved budget is Ug shs 25,341,995,000, of which Ug shs 21,481,701,000 (84.8%) was released and Ug shs 21,480,404,000(99.9%) spent by end of December 2019.

Physical Performance

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

The performance of the sub-programme was fair at 57.1%. Achievements on the key planned outputs were as follows:

Activities supervised and monitored: The small scale irrigation schemes and valley tanks under construction in eastern and Karamoja sub-regions were supervised and monitored. Monitoring of older facilities was done based on whether the community reported an issue.

Sustainable water for production management systems established: Activities under this output were progressing slowly. The consultancy for training farmers on best agronomic practices was under procurement (at contract award stage), Procurement of consultancy services for management committees of completed schemes was at inception phase.

Water surface reservoirs constructed: The 14 wind mills constructed in the Karamoja sub-region were completed and under the Defects Liability Period of six months. Six out of seven valley tanks were completed. The wind mills and valley tanks were completed in the previous financial year although they remain within the work plan until after completion of defects liability monitoring and final works payments.

Out of 28 small scale irrigation schemes planned 17 were under construction. The monitoring team visited Opiyai Small Scale Irrigation scheme in Soroti District. The scheme was 70% complete. There were four fish ponds containing fingerlings, the water source and pump house were completed, the tank stands/stores were constructed, VIP latrine was constructed pending painting. Ploughing of the plots had commenced. Major pending works were the installation of the reservoir tanks, plumbing, laying of drip lines and completion of ploughing. Issue observed was the door frame of the tank stand/store rusted and with holes.



L-R: Fish ponds; Ploughed plot; Rusted door frame of Opiyai Small Scale Irrigation Scheme in Soroti District

3.2.3.3 Water for Production Regional Center-West

The Water for Production Regional Centre West (WfPRC-W) is one of the decentralized 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 1st July 2016 to 30th 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.

Financial performance

The annual approved budget is Ug shs 25,004,651,000, of which Ug shs 12,272,480,000(49%) was released and Ug shs 12,268,904,000(99.9%) spent by end of December 2019.

Physical Performance

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

The performance of the sub-programme was good at 86%. Achievements on the key planned outputs were as follows:

Activities supervised and monitored: The project team supervised and monitored ongoing construction works of small scale irrigation schemes in the western region.

Sustainable water for production management systems established: A consultant was procured to train, build capacity and form management committees for completed and ongoing works and was yet to commence works.

Water surface reservoirs constructed: A service provider for the development of catchment management plan for Mabira dam in Mbarara District was procured. Five valley tanks out of six planned were under construction using ministry equipment, and construction of 17 out of 25 small scale irrigation schemes planned was ongoing.



The monitoring team visited three facilities to assess performance:

- i. Ntovu Small Scale Irrigation Scheme in Rakai District: The scheme was less than 10% complete. The pump house was constructed, source drilled, and tank base constructed. Pending works were ploughing of the fields, installation of reservoirs, pipe laying and plumbing works, irrigation system installation, and pump installation including the electro mechanicals.



L-R: Production borehole; Pump house; and Reservoir tank base of Ntovu Small Scale Irrigation Scheme in Rakai District

- ii. Kazo valley tank in Kiruhura District: The valley tank was excavated for a progressive farmer, however works stalled. Fencing and landscaping were not done, thus posing a risk to the surrounding community and animals.



A valley tank at Kazo in Kiruhura District

- iii. Kyakayondo small scale irrigation in Kasanda District: The scheme was 40% complete. The pump house was constructed but pending electromechanical installations, the source (a valley tank) was excavated, the tank stands were constructed and the transmission line laid. Pending works were ploughing of the land, and installation of the irrigation system, construction of the sanitation facility, tank installation and plumbing works, power installation (solar system) and installation of the pump.



L-R: Valley tank for water source; Pump house; and reservoir tank stands of Kyakayondo Small Scale Irrigation Scheme in Kasanda District



3.2.2.4 Water for Production phase II

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.

Financial Performance

The annual approved budget is Ug shs 48,984,643,000, of which Ug shs 16,099,925,000 (32.9%) was released and Ug shs 12,483,539,000 (77.5%) spent by 31st December 2019.

Physical Performance

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

The performance of the sub-programme was good at 84%. Achievements on the key planned outputs were as follows:

Activities supervised and monitored: Monitoring and supervision was conducted on some completed works and ongoing works countrywide including the 14 windmill powered watering systems, the irrigation schemes of Olweny in Lira District, Rwengaaju in Kabarole District, Tochi in Oyam District, Wadelai in Packwach District, Doho II in Butaleja District, Mubuku II in Kasese District, and Ngenge in Kween District. Other facilities monitored included Mabira dam in Mbarara District and valley tanks constructed using equipment from the Ministry in Otuke, Apac and Katakwi districts.

Sustainable water for production management systems established: The process of ensuring establishment of sustainable management committees for the irrigation schemes was ongoing through sensitisation and community awareness activities. Although there was no community management committee established yet for any of the irrigation schemes under construction. For Rwengaaju irrigation scheme, a consultant was procured and submitted an inception report for the establishment of a management structure through the Farmer Field Schools Approach.

Bulk water supply schemes constructed: A number of schemes were undergoing feasibility studies and/or designs. These included: Sanga-Kiktatsi-Kanyaryeru in Kiruhura District, Kagera corridor multi-purpose WfP Infrastructure in Isingiro District, Amagoro in Tororo District, Nabigaga, Rwimi, Purongo and Palyec in the districts of Kamuli, Kasese/Bunyangabu, Amuru and Nwoya respectively, Kibimba in Gomba District, Unyama in Gulu and Amuru, Namalu in Nakapiripirit, Sipi in Bulambuli, Lumbuye in Luuka and Kaliro, Lopei in Napak, Matanda and Enengo in Kanungu, development of Waterfor Oil Refinery at Kabale in Hoima District, large and mega irrigation schemes around Mt. Elgon area, Mt. Rwenzori area, Agoro Hills and South Western Highlands.

The only bulk water scheme under construction was Rwengaaju Irrigation Scheme in Kabarole District which was monitored to assess progress. By December 2019, the scheme had progressed to 66% from 54% in June 2019. There was generally slow progress caused by heavy rains that resulted in flooding of the project sites in the months of August to November 2019. There was also delayed delivery of the transition main pipes due to changes in pipe specifications from the original design hence a different supplier had to be sourced. Other issues that caused delays were delayed compensation that resulted in interruption of works.



The scheme components completed were source protection and storage reservoirs at the intake, distribution mains, and scheme buildings composed of offices, store and residential structures. The transmission main was 30% completed. Major pending works included the electro mechanical installations in the cold rooms, rock blasting, trimming and lining of the reservoir tanks, ploughing of farms for cultivation. Some defects were observed on the floor and ceiling boards at the office building (holes and cracks on the floor and bulging in the ceiling).



L-R: Storage reservoir at the source; and a section of the transmission main pipeline of Rwengaaaju Irrigation Scheme in Kabarole District



L-R: Rocks to be blasted in one of the reservoir tanks; and cold room in the produce store house of Rwengaaaju Irrigation Scheme in Kabarole District

Water surface reservoirs constructed: The planned activities to commence construction of Ojama and Rwebicucu earth dams and multi-purpose storage facilities in Serere and Mubende districts respectively and to design Lodoon earth dam in Napak District were not done. Ojama and Rwebicucu await finalisation of their designs, while Lodoon awaited availability of funds.

The overall programme performance is summarised in Table 3.5. The Water for Production programme scored 69.7% which represented a fair performance. The three regional centres mainly concentrated on construction of small scale irrigation schemes, of which 42 were ongoing countrywide, and 17 valley tanks under construction. The Water for Production sub-programme implemented by the center continued with construction of Rwengaaaju irrigation but progress was slow.

**Table 3.5: Performance of Water for Production Programme by December 2019**

Output	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target %	Cum. Achieved Quantity %	Weighted Score (%)	Remark
Supervision and monitoring of WfP activities	2,900,490	1,353,926	100	60.00	2.39	Facilities under construction were monitored and supervised. Old facilities were monitored when communities reported an issue.
Administration and Management Support	2,994,118	1,430,527	100	80.00	2.47	Contract staff salaries, office maintenance, utilities were paid.
Sustainable Water for Production management systems established	5,955,467	2,981,067	100	24.23	2.37	Slow progress on this output as procurement of consultancy services to undertake establishment of management committees was in initial stages.
Acquisition of Land by Government	1,210,000	305,000	100	40.00	1.00	Compensation for crops and land was obtained where communities were reluctant to provide freely for example in Adonai, Budaka District. Land was acquired for the pump station.
Purchase of Motor Vehicles and Other Transport Equipment	510,000	232,500	100	47.50	0.42	Procurement of vehicles was only in the regional center East where one double cabin pickup procured in the previous FY was delivered.
Purchase of Office and ICT Equipment, including Software	203,505	96,502	100	56.25	0.17	ICT equipment for regional centers North and East was delivered. Regional center West and the Centre were in final procurement stages.
Purchase of Specialized Machinery & Equipment	6,001,608	4,326,608	100	70.63	4.84	Spare parts for the maintenance of water for production equipment were procured.
Purchase of Office and Residential Furniture and Fittings	122,000	61,000	100	33.75	0.07	Furniture for regional center East was delivered. The rest was under procurement.



Output	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target %	Cum. Achieved Quantity %	Weighted Score (%)	Remark
Construction of Bulk Water Supply Schemes	30,835,267	6,287,998	100	19.00	23.65	Only the Water for Production center planned for this output. Rwengaju irrigation scheme in Kabarole progressed to 66%. Other bulk water schemes were undergoing feasibility studies and designs.
Construction of Water Surface Reservoirs	69,225,794	46,192,275	100	37.85	32.33	A total of 42 small scale irrigation schemes were ongoing out of 83 planned; 17 out of 21 valley tanks were under construction using equipment from the ministry
Programme Performance (Outputs)					69.70	Fair performance

Source: MWE and Field findings

Challenges

- Delayed finalization of designs by consultants led to delayed procurements to commence works for instance Ojama and Rwebicucu earth dams in Serere and Mubende districts respectively.
- Changes in pipe specifications for the transmission main led to soliciting for a new supplier which delayed works at Rwengaju irrigation scheme.
- Heavy rains during the months of October-December 2019, caused flooding at project sites and works were halted temporarily for instance at the Akworo small scale irrigation scheme in Kitgum District.

Recommendation

- The MWE should adhere to contractual obligations and invoke penalties to slow consultants.

3.2.4 Water Resources Management Programme

This programme aims at ensuring that Uganda's water resources are equitably shared and wisely used for sustainable social economic development. The programme outcome is *'Improved quality and adequate quantity of water resources'*. This contributes to the sector outcome of *'Improved water resources assessment, monitoring, planning, regulation and quality management'*.



The programme outcome indicators are:

- Percentage of water permits holders complying with permit conditions (surface and ground permit holders).
- Percentage of water samples taken at point of water collection that comply with national standards.
- Percentage of water resources related investments from catchment management plans.

The programme has 10 sub-programmes of which six² were monitored during the semi-annual monitoring for FY2019/20.

The annual approved budget for the Water Resources Management Programme in FY 2019/20 is Ug shs 46.24 billion, of which Ug shs 19.14 billion (41.4%) was released and Ug shs 12 billion (62.7%) expended by 31st December 2019. The total budget for the monitored sub-programmes is Ug shs 45.36 billion representing 96% of the total annual program budget of which Ug shs 13.63 (30%) billion was released and Ug shs 11.64 (85%) billion spent by 31st December 2019. While release was fair, expenditure is good.

The planned outputs included: restoration and conservation of degraded watersheds, formation and establishment of Catchment-based IWRM, monitoring of water quality, rational planning, allocation and regulation of water resources, and establishment of government buildings and administrative infrastructure among others.

Physical Performance

Under administration and management support, a 10-year Strategic Plan (2019-2029) and 5-year Business Plan (2019-2023) for the Water Resources Institute were prepared, a pioneer Strategic Plan (SP) was designed to guide the Water Resources Institute in pursuing its Mandate, Mission, Objectives and functions, while the Integrated Water Resources Development and Management plan for Albertine Graben was developed to 30%. The catchment management committee meetings were held in Maziba, Aswa, and Awoja to update the stakeholders on the progress of interventions under Enhancing Resilience of Communities to Climate Change (EURECCA) Project, discuss and get feedback on the intervention.

In a bid to secure Uganda's interests in Transboundary water resources, the long-term water planning and water forecasting sub-tools were finalized and the database development and establishment was at 80%. The development of Hydraulic/Hydrodynamic model for the Nile (Sub-tool C) was undertaken to 10%, and the design of a harmonized fisheries information system was at 40%.

In ensuring water resources planning, monitoring, regulation, allocation, and assessment, a water regulation national campaign to map all water users and wastewater dischargers (permitted or non-permitted) was undertaken. The findings indicated that there was an increase in compliance by permit holders with permit conditions by 1.5% for waste water discharge permit holders, 1% for water abstraction permit holders, and 1% for drilling permit holders. Additionally, total of 170 water permits were issued, of which 77 were new and 93 were renewals categorized as: groundwater (48), surface water abstraction (41), drilling (32), hydraulic construction (22), and waste water discharge (27).

Under the establishment of catchment-based IWRM component, the Albert Water Management Zone (AWMZ) offices were fully furnished and tree nurseries in Mpanga-mid catchment were set up and stocked with 10,000 trees. River bank stabilization in Semuliki catchment with 1km of bamboo and restocking of Mutamba

² 1348 water management zones, 1302 support to Hydro-power development and operations on R.Nile, 1424 Multi-lateral Lakes Edward and Albert Intergrated Fisheries and Water Resources Management (LEAF II), 1487 Enhancing Resilience of Communities to Climate Change (EURECCA), 1522 Inner Murchison Bay Cleanup Project, and 1530 Integrated Water Resources Management and Development Project (IWMDP)



fish ponds in Mpanga lower catchment with 24,000 fish fingerlings was carried out. Monitoring and supervision of restoration works in Mpanga, and Semuliki catchments was undertaken while emergency response to flooding in Semuliki catchment was executed. Tender documents for the procurement of contractors for construction of 1 Surveillance & Research station in Kaiso were completed.

As part of government buildings and administrative infrastructures, the construction of 5 landing sites and rehabilitation of the feeder roads under the Multi-lateral Lakes Edward and Albert Integrated Fisheries and Water Resources Management (LEAF II) project were at varying levels by December 2019; (Kitebere in Kagadi at 72%, Mbegu in Hoima at 98%, Dei in Packwach at 95%, Rwenshama in Rukungiri at 99%, and Mahyoro in Kamwenge at 99%). Most of the works were done including the construction of the fish cleaning structures, smoking kilns, power connections/solar installation, offices, and sanitations facilities. Pending works included final compound works, and final painting for some of the sites. Establishment of the Facility Management Committees for the landing sites of Kitebere, Mbegu, Dei and Mahyoro were completed. The floor for the office building at Mbegu landing site in Hoima exhibited cracks pointing to poor workmanship.



L-R: Completed office block at Mbegu landing site in Hoima DLG and incomplete fish smoking Kilns at Mahyoro landing site in Kamwenge DLG.



L-R: Fish handling surface sand fencing destroyed by waves from the lake at Mbegu landing site in Hoima DLG



A project office in Kabale town for Maziba Catchment under the Victoria Water Management Zone (VWMZ) project was renovated and fully furnished, while construction of one National Water Quality Reference Laboratory at Entebbe was not carried out as the project received less funds than what was planned for the activity.

A total of 34 ground, 66 surface and 109 water quality monitoring stations were operated and maintained. Catchment Management Plans for rivers; Nyamwamba, Mitano, Muzizi, Nkusi and Semliki were at 80% with the inception and situational analysis phase completed. The draft Catchment Management Plan (CMP) development phase was ongoing. Catchment Management Committees for Nyamwamba, Mitano, Nkusi and Muzizi were trained under the WMZ project.

The Expression of Interests for preparation of four Catchment Management Plans for Nyamugasani and Kafu in Albert WMZ, Sezibwa and Okweng in Kyoga WMZ were completed and the shortlisting report approved. Popular versions of the five Catchment Management Plans were not done. Evaluations for Albert Water Management Zone (AWMZ) Water Resources Strategy and Action Plan were finalized and short listing report approved. The Terms of Reference (ToRs) for priority catchment management investment in Lwakhakha, Middle Awoja, Kochi and Aswa II sub-catchments were revised to incorporate comments from the donor.

Establishment, revision and implementation of six sub-catchment management plans and six management committees in three catchments of Awoja, Maziba and Aswa under the EURRECCA project was ongoing. A total of 356 households in Maziba, Awoja and Aswa were engaged in action planning for ecosystem conservation, climate smart agriculture and were trained in various restoration activities and alternative income generating activities, however under project 1487, the procurement of the demonstration centre was initiated.

Tree nurseries were established under Public Private Partnership (PPP) in the sub-catchments to support tree planting under EURRECCA. Contracts were awarded to Gum Blessings Nursery in Lira, Ecoways Ug Ltd in Agago, and Mt. Zion in Kabong under the Aswa catchment. Procurement for establishment of tree nurseries under Project 1487 was at contact awarding stage. The seedlings were to be supplied to individuals and institutions.

Women groups in the three catchments of Maziba, Awoja and Aswa were trained in making of improved stoves and were yet to construct any stoves, while Mukirwa Women’s Group in Maziba Catchment constructed a total of 170 improved cook stoves (90 Rocket Lorrena and 80 Shielded).



L-R: Women of Agago Farmers Group preparing to make an improved cook stove; Bamboo seedlings at Gum Blessing Tree Nursery in Lira for distribution under EURRECCA project



The overall performance was fair at 69.7% (Table 3.6), attributed to the slow procurement process. Most activities were at different stages of procurement, especially consultancy services across the sub-programmes.

Table 3.6: Performance of the Water Resources Management Programme by 31st December 2019

	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Catchment-based IWRM established	14,508,311,886	3,245,893,603	3598	98	3.89	Operations of 11 Catchment Management Organizations of (Ruhenzamyenda, Katonga, Lokok, Lokere, Rwizi, Mpanga, Semliki, Kiiha, Albert Nile, Mpologoma, Victoria Nile were not done during the period under review.
Government Buildings and Administrative Infrastructure	19,693,737,000	6,765,360,000	32	14	43.41	Procurement of civil works for infrastructure development and maintenance of demonstration centers was ongoing. The EURECCA was in the process of signing agreements with existing ZARDIs within the four water management zones to renovate and furnish them, and they act as the demonstration centres.
Administration and management support	2,824,324,000	708,163,000	139	60	6.23	Catchment management committees were formed in Awoja, Maziba and Aswa.
Uganda's interests in transboundary water resources secured	1,905,058,000	852,723,000	9	4.9	4.20	Hydraulic/ Hydrodynamic Model for the Nile (Sub-tool C) was developed to 10%.



	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Water resources availability regularly monitored and assessed	1,079,329,114	177,128,517	31	8	2.38	Procurement of a consultant to develop Phase II of Water Information System (WIS) was not initiated due to the delayed assessment report from NITA-U.
Water resources rationally planned, allocated and regulated	338,000,000	110,800,000	463	215	0.75	A total of 170 Water Permits were issued. 5% of major water reservoirs and water bodies were managed and regulated according to the water laws and regulations. A total 120 industries were visited to assess adherence to cleaner production practices and inventory updated with new information. Dam safety and reservoir regulation database was operationalized and dam safety regulations were enforced. Study on impact of refugees on water resources in refugee settlements was not undertaken.
Degraded watersheds restored and conserved	1,198,000,000	1,198,000,000	2	1	1.32	The trans-boundary wetlands management plans for Sio-Siteko (Uganda/Kenya), Sango Bay-Minziro (Uganda/Tanzania), and Semlik Delta (Uganda/D.R.Congo) were reviewed and validated.



	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Purchase of Specialised Machinery & Equipment	3,156,240,000	104,500,000	101	30	6.96	Procurement of a laptop for WRM department was at contract awarding stage.
Purchase of Office and Residential Furniture and Fittings	40,000,000	34,500,000	100	0	0.00	The contract for purchase of assorted laboratory furniture and fixtures was signed.
The quality of water resources regularly monitored and assessed	621,500,000	438,750,000	100	30	0.58	The Water Quality Status Report was prepared and disseminated. A total of 228 drinking water sources were assessed and 77% complied with National Drinking water standards.
Programme Performance(Outputs)					69.72	Fair Performance

Source: MWE and Field findings

Challenges

- Transport constraints to monitor the activities of the programme especially in the water management zones and regional offices.
- Increasing degradation of catchments by human activities and natural factors such as effects of climate change affected the quality and quantity of the water resources.

Conclusion

Overall programme performance was fair. Good performance was registered under the construction of landing sites under the LEAF II above 92% level of completion. The EURECCA registered good performance as sub-catchment management committees in the Catchments of Awoja, Maziba and Aswa were formed and trained in various areas including income generating activities. Other sub-programmes performed poorly as most of their planned activities were still at procurement stage.



For the programme to fully achieve the NDP II target of *implementing water resources management reforms and promoting catchment based integrated water resources management*, the MWE should engage a multi-sectoral approach to fully secure and manage the water resource in the country.

Recommendations

- The MWE should devise means to share the available vehicles for work to proceed as they wait for government relaxation on procurement of vehicles. The center should plan to handover vehicles of some projects which have closed to those still running.
- The MWE should increase use of Integrated Water Resource Management approaches in the planning, management and development of water resources, implement climate change adaptation measures and ensure compliance to environmental laws and obligations.
- The MWE should fast-track the development of phase II for the Water Management Zone Project to continue implementation of catchment management measure to reduce the effects of climate change.

Gender and Equity considerations

During implementation of catchment management measures and restoration activities such as construction of earth bunds and contour terraces to manage floods and soil erosion and in planting of trees, women and youth were involved. Additionally, women were encouraged to take on Catchment and Sub-Catchment Management Committee positions. Women groups in catchments and sub-catchments were trained in income generating activities such as construction of improved cook stoves for sale and domestic use. For instance, Mukirwa Women's Group in Maziba catchment was trained and constructed 170 improved cook stoves between June and December 2019, and 33 women in Agago District Farmers Group were trained to make improved cook stoves.

3.2.5 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 2019/20, three development sub-programmes were implemented, and all were monitored: i) The National REDD-Plus Project, ii) The Farm Income Enhancement and Forestry Conservation Project Phase II (FIEFOC II), and iii) Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda. The findings are presented hereafter.

3.2.5.1 The National REDD-Plus Project

The REDD-Plus Project is a national undertaking that links Uganda to the United Nations Framework Convention on Climate Change and other international policy regimes towards enhancing the role of forestry in climate change mitigation. The project objective is to address drivers of deforestation and forest degradation, enhance forest resources for biodiversity conservation and provision of multiple benefits to the economy and livelihoods. The project period is 1st July 2014 to 30th June 2020.



Financial Performance

The annual approved budget is Ug shs 3,598,442,000, of which Ug shs 2,999,221,000 (83%) was released and Ug shs 2,951,261,000 (98%) spent by end of December 2019.

Physical Performance

The key planned outputs in the FY included: i) Knowledge of environment and natural resources promoted; ii) Degraded ecosystems restored and protected; iii) Capacity building and technical backstopping.

The performance of REDD+ project was fair at 50.76%. One awareness and sensitization workshop was conducted in the Karamoja sub-region, out of four regional workshops planned. The workshop was aimed at creating an understanding of the National Forestry Monitoring System to the district and community leadership.

The project team was implementing the REDD+ Strategy and REDD+ Gender strategy through awareness creation and sensitizations and developing of new projects from the REDD+ strategy.

The World Bank monitored the readiness of Uganda to implement the REDD+ project. Forest managers under NFA and District Forest Services were trained on data collection and analysis using mobile devices such as smart phones. Tree seedlings were procured and distributed to communities targeting the Elgon and Albertine graben.

3.2.5.2 Farm Income Enhancement and Forestry Conservation Project Phase II – (FIEFOC II)

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 (1st July 2016 to 30th June 2021), with its main objective to improve household income, food security and climate resilience through sustainable natural resources management and agricultural enterprises development. It includes 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.

Financial Performance

The annual approved budget in FY 2019/20, was Ug shs 122,385,003,000, of which Ug shs 33,089,271,000 (27%) was released and Ug shs 32,709,236,000 (98.8% of the release) spent by end of December 2019.

Physical Performance

The key planned outputs in FY 2019/20 included: i) Knowledge of environment and natural resources promoted; ii) Degraded ecosystems restored and protected; iii) Capacity building and technical backstopping, 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), 96 small scale irrigation schemes designed.



By December 2019, the performance of FIEFOC was poor at 37.4%. On the output of promotion of knowledge, the consultant to train farmers on Integrated Natural Resources Management was yet to be procured, however the final needs assessment report and training module was prepared. A MoU was signed with Uganda National Alliance on Clean Cooking which will ensure production and distribution of clean cooking technologies.

Procurement of consultancy services to carry out activities under restoration and protection of degraded ecosystems was ongoing.

For the construction of irrigation schemes: The contractor was undertaking mobilisation for the improvement of Agoro Irrigation Scheme. During the half year period, the other schemes progressed as follows: Tochi 85.2% from 72.3%, Mubuku-II 60% from 36.5%, Doho-II 76.3% from 58.9%, Ngenge 80.8% from 64.8%, Wadelai 43.0% from 29%, and the rehabilitation of Olweny 99% from 95%. For the other four schemes of Unyama, Namalu, Siipi and Namatala the designs were completed and community mobilisation was ongoing. Designs were ongoing for the small scale irrigation schemes.

The monitoring team visited four irrigation schemes listed below to assess performance.

i. Mubuku II Irrigation Scheme in Kasese District

The overall physical progress of the scheme was 60%. The construction contract period of 30th October 2017 to 30th October 2019 had elapsed and an extension to 30th June 2020 was granted. Key components of the scheme were at various levels as follows: Headworks 85%, main canal 90%, secondary canals 95%, night reservoir 85%, lagoons 80% and 26/27 VIP sanitation facilities were constructed. Pending works included mechanical installations (control gates), tertiary canals, secondary and tertiary drains. Heavy rains caused inaccessibility especially during the excavation of the night storage reservoir.



L-R: Lagoon excavation; and a section of the headworks structure of Mubuku II Irrigation Scheme in Kasese District



L-R: A section of the secondary canal; and a VIP toilet of Mubuku II Irrigation Scheme in Kasese District



ii. Tochi Irrigation Scheme in Oyam District

The scheme progressed to 85.2% from 72.3% during the half year period. Works were in progress. Structures on ground included: The left main canal, which was pending the drainage structures, 2.5km out of 3.5km of the right main canal was constructed; 5/25 VIP toilets were constructed; the spillway was completed, pending the tail channel; painting of the scheme buildings, however, cracks were observed on the ceilings.

Implementation challenges

- Flooding during October -December 2019 rendered roads impassable.
- Theft of iron sheets from the VIP toilets.



L-R: Spillway; and Scheme building (Offices) of Tochi Irrigation Scheme in Oyam District

iii. Doho II Irrigation Scheme in Butaleja District

Doho II Irrigation Scheme was at a physical progress of 76.3% by December 2019 from 58.9% at the end of last FY. Other scheme components were at varying levels: The secondary and tertiary drains were completed; the secondary canals were 98% complete; the main canal was at 75%; scheme buildings 95%; and the mechanical structures/gates 80%.

Implementation challenges

- Flooding due to heavy rains making roads to the sites impassable.
- Blocking of drains by the farmers as they want to continue cultivation hence causing more flooding on site.
- The delayed compensation of communities led to interruption of works.



L-R: A section of the main canal under construction; and a cross head regulator of Doho II Irrigation Scheme in Butaleja District



L-R: Produce store; and office block of Doho II Irrigation Scheme in Butaleja District

iv. Ngenge Irrigation Scheme in Kween District

The overall physical progress of Ngenge irrigation scheme by December 2019 was 80.8%. The construction contract commenced on 16th October 2017 and ended 15th October 2019. However, a four months extension was granted to 15th February 2020. Works were ongoing at different levels of progress as follows for the key components: Headworks 95%, main canals 60%, secondary canals 75%, tertiary canals 62%, scheme buildings 100%, 19/25 VIP latrines completed, and night storage reservoir/dam 95%. The key implementation challenges were:

- Flooding during the rainy season rendered roads and sites inaccessible.
- Delayed compensation. A section of about 2.7km canal construction could not be worked on as the land owner denied the contractor access to the land.



L-R: Headworks on R. Ngenge; and Cross head regulator of Ngenge Irrigation Scheme in Kween District



L-R: A VIP latrine; and a produce store of Ngenge Irrigation Scheme in Kween District



3.2.5.3 Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda

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 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 July 2018 to June 2023.

Financial Performance

The annual approved budget in FY 2019/20, was Ug shs 3,301,000,000, of which Ug shs 1,908,597,000 (57.8%) was released and Ug shs 1,581,434,000 (82.8% of the release) spent by end of December 2019.

Physical Performance

The key planned outputs in FY 2019/20 included: i) Knowledge of environment and natural resources promoted; ii) Degraded ecosystems restored and protected; iii) Capacity building and technical backstopping provided; Monitoring, inspection and supervision conducted.

By December 2019, the performance of the sub-programme was very good at 94%. Under knowledge promotion, a TOR for linking the National Wetland Information Management System (NWIS) at the central departments was prepared. Twenty local government officers were trained in data base update and information management to prepare LGs for the NWIS linkage. For the restoration of fragile eco-systems, earmarking of wetlands to be restored and community sensitisations were ongoing.

Under capacity building, technical backstopping and supervision, 32 districts were technically supervised out of the planned 127, compliance monitoring were offered to Zhong Bang Industries and Chens Agriculture Development Uganda LTD. Few districts and companies were monitored for compliance due to budgetary constraints.

The overall programme performance was poor at 40.4%. Table 3.7 gives a summary of the performance. Key achievements included the commencement of implementation of the REDD+ strategy, construction of the five irrigation schemes.



Table 3.7: Performance of Natural Resources Management Programme by 31st December 2019

Out put	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target %	Cum. Achieved Quantity %	Weighted Score (%)	Remark
Promotion of Knowledge of Environment and Natural Resources	401,948	93,186	100	30.0	0.31	There was slow progress on planned activities. For example only one regional workshop to sensitize communities on REDD+ was held out of four planned. Consultancy services were still under procurement for training of farmers under FIEFOC. The NWIS was yet to be rolled out to the center departments and local governments.
Restoration of degraded and Protection of ecosystems	3,591,943	1,094,521	100	35.0	2.78	Community sensitization and procurement of consultants to carry out restoration activities were ongoing.
Policy, Planning, Legal and Institutional Framework	1,732,176	178,636	100	50.57	1.34	The REDD+ strategy Was produced and popularized for implementation of projects within it. An irrigation scheme management structure developed for the five schemes under construction.
Coordination, Monitoring, Inspection, Mobilisation and Supervision	2,945,084	245,250	100	34.67	2.28	REDD+ project monitored by the world Bank. Project activities under FIEFOC monitored and supervised, and 32 LGs supported and technically backstopped.
Capacity building and Technical back-stopping	16,077,544	400,523	100	56.67	12.44	Capacity building activities and technical backstopping ongoing for LGs, project staff and communities around the irrigation schemes.
Administration and Management Support	3,164,804	500,202	100	70.00	2.45	Administrative activities were conducted including staff and vehicle maintenance, and preparation of performance reports.



Out put	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target %	Cum. Achieved Quantity %	Weighted Score (%)	Remark
Operational support to private institutions	350,000	350,000	100	66.00	0.18	Procurement of motorcycles and tents to support the Environment Protection Police Unit finalised pending delivery.
Government Buildings and Administrative Infrastructure	92,839,446	28,317,271	100	7	16.48	Key activity is the construction and/or rehabilitation of the irrigation schemes: Tochi 85.2%, Mubuku-II 60%, Doho-II 76.3%, Ngenge 80.8%, Wadelai 43%, and the rehabilitation of Olweny 99%.
Purchase of Office and ICT Equipment, including Software	126,500	5,000	100	0.00	0.00	ICT equipment (computers, laptops and accessories) under procurement.
Purchase of Specialized Machinery & Equipment	10,000	2,500	100	0.00	0.00	Bid documents for procurement of specialized equipment (Post-harvest handling, Value addition and Threshers, Backhoes) submitted to bank for approval.
Purchase of Office and Residential Furniture and Fittings	45,000	10,000	100	3.00	0.00	Under procurement process. Bid documents submitted to the World Bank for approval.
Acquisition of Other Capital Assets	8,000,000	6,800,000	100	30.00	2.18	Seedlings were procured under the REDD+ project and given to communities for planting.
Programme Performance (Outputs)					40.4	Poor performance

Source: MWE and Field findings

Challenges

- Heavy rains during the months of October to December 2019 caused flooding and impassable roads which led to delay in works progress at the irrigation schemes.
- Delayed compensations that led to works interruptions hence delaying construction.



3.3 The District Rural Water Supply and Sanitation Development Conditional Grant

The Programme aims at providing cost effective and sustainable water and sanitation services and facilities in rural communities in respective local governments. The grant is disbursed to District Local Governments (DLGs) to implement hardware and software activities/outputs. The budgeting for the outputs by DLGs is based on sector grant guidelines where the budgets are divided into recurrent (wage and non-wage) and development budget.

Under the recurrent budget, districts plan to carry out software activities (trainings, formation of water user committees, monitoring and supervision and sensitization among others), while under the development budget, hardware activities are planned and implemented such as: boreholes drilling, springs, design and construction of piped water systems, construction of rainwater harvesting tanks, and construction of sanitation facilities.

The Conditional Grant for Sanitation and Hygiene (DHSDCG) is for promotion of hygiene and sanitation activities such as implementing Home Improvement Campaigns (HICs), and Community Led Total Sanitation (CLTS).

The sub-programme's semi-annual performance for FY2019/20 was based on the 12 districts of Kanungu, Mitooma, Ntoroko, Kamwenge, Manafwa, Namisindwa, Luuka, Kaliro, Hoima, Kitgum, and Omoro that were monitored.

Financial Performance

The sub-programme's annual budget (water and sanitation) for the FY 2019/20 was Ug shs 59.33 billion. Total expenditures and releases were not readily available at the time of producing the report.

The total budget for the monitored LGs is Ug shs 3.9 billion, of which Ug shs 2.4 billion (64%) was released and Ug shs 0.6 billion (24%) spent by end of December 2019. The releases were good, while expenditure was poor. The poor expenditure is attributed to the delayed initiation of procurements. Most LGs had just signed contracts for development activities and for those that had started on the works, payments had not been made to the contractors and service providers.

Physical Performance

All districts had initiated procurement of contractors, while others had awarded contracts for drilling boreholes and construction of sanitation facilities. In some LGs, the works were ongoing for example in Manafwa, 5 out of 8; and Kaliro 8 out 17 boreholes were drilled and casting was ongoing. In Manafwa Gistrict, Lirima gravity flow scheme extension works, a total of 3km out of 4km of distribution were laid with an aim of adding 45 yard tap connections.

The Water User Committees (WUCs) were formed nor trained for most borehole sites since construction had not commenced for most sites. No water source or sanitation facility was completed and in use by February, 2020. Some funds were spent on environmental screening, surveying and sighting.

Water quality tests were carried out in the LGs monitored, except for Mitooma which did not have the water quality testing equipment/kits. The tests focused on establishing turbidity levels, color and e coli content. The results indicated that over 70% of the sources were safe.



All districts visited had identified the parishes for sanitation and hygiene improvement campaigns and concluded baseline studies for the same. The baseline data indicated that whereas latrine coverage was above 50%, hand washing was below 35% for all the parishes and villages identified.

Overall physical performance was poor at 37.6% (table 3.8). As of December 2019, most of the activities had not started except for coordination committee and planning and advocacy meetings for some DLGs. Some had been postponed to quarter three.



Borehole casting after drilling at Khabutola and Naukhaya villages in Manafwa District



Spring protection at Kazinga and Rubaasa village in Katenga sub-county, Mitoma District



Pipes in stores for rehabilitation of boreholes in Hoima DLG (left), and Luuka DLG (right)

**Table 3.8: Performance of the District Rural Water Supply and Sanitation Development Conditional Grant for selected Local Governments by 31st December 2019**

Out puts	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Stakeholder coordination	81,087,074	39,562,138	97	40	1.75	Done as planned.
Office equipment	17,661,957	9,229,328	23	12	0.45	All equipment had not been procured.
General Office Operations	68,281,822	34,720,912	118	45	1.30	Offices were maintained with office supplies and utilities paid.
Monitoring and Supervision	50,129,984	26,765,079	291	76	0.62	This was done for pre-construction.
Software	98,875,366	62,660,352	533	268	2	Trainings and sensitization of communities was done in all the selected drilling sites. Baseline surveys for sanitation were also conducted.
Sanitation hardware	156,577,943	91,243,074	10	2	1.37	Contracts for sanitation facilities were signed and some works had started.
Water Supply Facilities (HW)	2,971,143,071	1,922,594,286	109	23	24.69	Most LGs had just signed contracts and contractors were mobilizing.
Rehabilitation of Water Facilities	420,277,426	272,843,564	101	26	4.25	These were to be done by hand pump mechanic associations but none of the visited districts had commenced.
WQ surveillance	54,930,000	31,477,000	638	315	1.21	The LGs with water quality testing kits had conducted tests and the results indicted less contamination of water sources.
Salaries and Wages	5,362,500	1,340,625	4.	1	0.14	Only one LG had staff on contract that was paid wages.
Programme Performance (Outputs)					37.64	Poor performance

Source: DLGs and Field findings



Challenges

- Inadequate non-wage grant of less than Ug shs 35 million to implement both software activities and operations of the districts. This was worsened by the constant budget cuts to district water sector budgets from Ug shs 600 million in FY2013/14 to less than Ug shs 400 million in FY2019/20.
- Transport challenges to monitor implementation of activities as most district vehicles are too old and constantly breakdown with high maintenance costs, while other DLGs do not have any.
- Non-functionality of Water User Committees due to disintegration as they work on a voluntary basis. This is worsened by the limited budget to facilitate the reformation and training of new committees.
- Limited access to safe water in areas with low water levels yet the resources to the districts are limited to implement appropriate technologies such as piped water systems.
- Delayed initiation of the procurements causing implementation delays.

Conclusion

Overall physical performance was poor, most of the LGs had just signed contracts for borehole drilling, while a few like Kaliro had started. The parishes for the Community Led Total Sanitation (CLTS) were identified and baseline studies carried out. The delayed initiation of procurement denied communities access to services. The districts should start procurement processes early so that works begin immediately they receive funds.

Recommendations

- The MFPED should consider increasing the non-wage grant to enable LGs implement software activities and office running.
- The Cabinet should consider lifting the ban on purchase of motor vehicles.
- The MWE should allocate more resources from the center to DLGs to support the piped water supply system as a new strategy for the DWSDCG especially in the water stressed districts
- The LGs should follow the procurement guidelines and calendar, and initiate procurements on time to ensure timely implementation of activities.

Gender and Equity Consideration

While allocating new water sources by the DLGs, priority is given to unserved and underserved parts of the districts and the partners in the districts are advised to also focus their efforts in those areas. During formation of WUCs, at least three key positions (Chairperson, Secretary and Treasurer) are reserved for women representing 30% of the committee positions.

3.4 National Environment Management Authority (NEMA)

The NEMA's mission is to promote and ensure sound environment management practices for sustainable development while its strategic objective is "An efficient agency, with people in Uganda living in a clean, healthy, productive and sustainable environment"



The NEMA has one programme: Environment Management and 2 sub-programmes namely: Administration, and Project 1304 - Support to NEMA Phase II which were all monitored for semi-annual performance FY2019/20. Physical performance is discussed hereafter.

3.4.1 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 Programme outcome is *“Environmental Compliance and Enforcement Strengthened”*. This outcome contributes to the sector outcome of *“Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural resources”*.

The Programme’s approved budget in FY 2019/20 is Ug shs 26.9 billion. This is an increment of Ug shs 0.3 billion from last FY’s budget. The total release was Ug shs 12.6 (48.6%) billion and the expenditure was Ug shs 10.6 billion (83.7%) by 31st December 2019. Release and expenditure were good.

During the FY2019/20, NEMA planned to integrate ENR Management at National and Local Government levels, and ensure environmental compliance and enforcement of the laws, regulations and standards.

Physical performance

By end of December 2019, the NEMA had reviewed and issued 629 Environment and Social Impact Assessment (ESIA) certificates some of which were in support of the oil and gas sector mostly in areas of oil and gas waste management and provision of permits.

The District Environment Action Plan (DEAP) for oil and gas was done for 10 DLGs while Quarterly field inspections and monitoring with focus on Tilenga, Kingfisher and ECOP oil and gas development projects, critical oil roads, Hoima international airport, and waste management was carried out.

The NEMA handled 86 cases mainly relating to illegal sand mining, wetland degradation/encroachment, poor waste management and mishandling of hazardous waste. It also reviewed and updated the Albertine Graben Environmental Monitoring Plan (AGEMP) as a tool to guide in tracking the impact which oil and gas related developments have on the environment of the Albertine Graben.

The NEMA also restored critically degraded ecosystems in Kyoga, Nile and R. Rwizi basins for example, a total of 100 ha of Kakyera lake shore (Kiruhura district) and 150ha of Kiretwa peninsula (refugee host community) at Lake Nakivale shore (Isingiro district) were restored through planting of demarcation pillars.

Sensitivity mapping and assessment of floods and landslides occurrence in the districts of Katakwi, Amuria, Bulambuli & Butaleja in Eastern and Bundibugyo, Kasese, Kabale and Rubanda in the west were undertaken and the draft National State of Environment Report (NSOER) 2018-19 was under review. The E-waste center to handle e-waste materials in Lweera was completed by end of December, 2019 and it awaits its launch.

The NEMA offices have been equipped, and re-tooled through the acquisition of air quality monitoring equipment of which one (1) continuous air quality monitor is deployed on NEMA house, two (2) Hand-held air quality sensors are in the Lab, one (1) water quality monitoring meter is in the NEMA Lab and two (2) Noise meters have been given to Mbarara regional offices and one is in the NEMA Lab. Additionally, the NEMA building was refurbished and maintained by carrying out plumbing works in the Laboratory and the kitchen and installation of the re-energized razor wire at the front of the NEMA building.



Research to ensure establishment of environmental information and economic value for ENR goods and services has been done through collection of baseline information for catchment and invasive alien weed management in Lake Kyoga catchment area. This is intended to create a healthy catchment ecosystem of Lake Kyoga that is inherently stable to support varied human activities in a sustainable manner.

Overall programme performance was good at 84.9% (Table 3.9) as most of the key planned activities such as enforcement of environmental compliance, laws, regulations and standards that contribute to the program outcome had been implemented however, the procurement process for Office and ICT equipment, specialized machinery and office furniture had just started and the items were yet to be delivered. It should be noted that the output of institutional capacity of NEMA and its partners enhanced performed well because of the higher budget over other outputs and achieved almost half of its planned activities. The output supports the implementation of the NEMA mandate.

The NEMAs has two main targets in the NDP II which are: i) Increase wetland ecosystem coverage from 10.9% in FY2013/14 to 12% in FY2019/20 and ii) Enhance environmental compliance from 70% in FY2013/14 to 90% in FY2019/20. As of end of December 2019, the NEMA was progressing well towards achieving these targets as ecosystem coverage was at 11.8% and environmental compliance was averaging between 75-77% though compliance for the wetland sector was low at 30%.

Table 3.9: Performance of the Environmental Management Programme by 31st December 2019

Outputs	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Integration of ENR Management at National and Local Government levels	810,000	394,500	152	40.00	1.68	The LGs were supported with ESIA information on projects within those locations to ease their monitoring of compliance.
Environmental compliance and enforcement of the law, regulations and standards	4,975,359	2,380,267	4352	2654	19.10	629 ESIA certificates of approval were prepared for issuance to the developers. The number of violators has remained the same at 14% with the FY2018/19 Majority of the environmental crimes have been reported in Kampala and Wakiso; 41% and 32% respectively with environmental crimes include, sand mining, wetland degradation/ encroachment, poor waste management and mishandling of hazardous waste. 85 cases were handled by the Authority and out of which, 16 are directly under the legal department while 69 are instituted criminal cases by the EPF-NEMA



Outputs	Annual Budget (000 Ug shs)	Cum. Receipt (000 Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Access to environmental information/ education and public participation increased	2,160,000	853,675	297	64	4.52	Awareness programs were conducted in schools and districts in 20 LGs targeting education managers, environment officers, head teachers, club patrons, and members of senior management committee
The institutional capacity of NEMA and its partners enhanced	16,606,464	8,147,894	1246	557	58.08	The Responsible Directors and Managers were trained on strategic planning in order to improve on the FY2020/21-FY2025/26 NEMA Strategic Plan. 11 staff were trained in various disciplines to execute their mandates Staff salaries were paid.
National, regional and international partnerships and networking strengthened	870,000	651,000	46	16	1.55	NEMA participated in national and international meetings and conventions. Field audit inspections and system audit were undertaken
Purchase of office and ICT equipment including software	290,000	167,625	16	0	0	Procurement of 10 Desktops, four laptops and two Voltage stabilizers was initiated and approved.
Purchase of specialized machinery and equipment	240,000	45,000	2	0	0	Procurement is ongoing
Purchase of Office and Residential Furniture and Fittings	100,000	20,000	100	0	0	Items not yet procured
Programme Performance (Outputs)					84.93	Good performance

Source: NEMA and Field findings

Challenges

- Inadequate funding to LGs and regional offices to support environmental activities within the LGs.
- Political interference during enforcement for compliance.



Conclusion

The program posted good performance although the procurement of some of equipment and furniture was still pending despite release of the required funds. This is attributed to delayed initiation of procurements by entities. The NEMA has also continued to grapple with environmental degraders and wetland polluters through human settlement, industrial development and waste discharge. It also faces challenges of poor sector wide planning, inadequate financing and continuous political interferences during implementation and enforcement of its activities. A sector wide approach to planning and implementation with help the NEMA benefit from synergies leading to effectiveness in dressing environmental concerns in Uganda.

Recommendations

- i. The MFPED should set up a conditional grant to local Governments to specifically address environment issues in lower Local Governments.
- ii. The politicians at all levels should desist from interfering in the activities of NEMA. The NEMA should also come up with punitive measures against politicians that interfere in its enforcement activities.

Gender and Equity G&E

In its attempt to address Gender and Equity concerns, the NEMA through the Clean Development Mechanism (CDM) program has employed a total of 110 (59.5%) males and 75 (40.5%) females in the 9 sites. The districts of Fort portal and Jinja have more female working at the waste compost sites. In addition, the NEMAs selection of degraded areas for restoration is determined by the intensity of degradation and community willingness to maintain the restored areas. During the restoration activities and community barazas, the women are encouraged to participate.

3.5 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 NFA has one programme; Forestry Management Programme.

3.5.1 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 and economic, social and environmental benefits especially to the poor and vulnerable and enhance organizational sustainability.

The program outcome of *improved management of central forest reserves* contributes to the sector outcome of *'Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources'*.

The Forestry Management Programme has two sub-programmes; 01: Headquarters and 0161: Support to NFA and all were monitored for semi-annual performance in FY2019/20.



The programmes annual approved budget for FY2019/20 is Ug shs 32.49 billion, of which Ug shs 15.54 (47.8%) billion was released and Ug shs 8.94 billion (57.6%) expended by 31st December 2019. Release and expenditure was fair.

Physical Performance

With regard to management of CFRs, a total of 1,746.1 hectares of degraded CFRs were restored in West Nile, Sango-Bay, South West, Achwa, and lakeshores in Mabira, and Lwamunda. Additionally, the indigenous and local communities of the Ik and Tepesi in Karamoja were involved in restoration of Mt. Moroto Forest Reserve. One meeting was held with each of the 4 CFM groups in Kashoya-Kitomi CFR to familiarize with the groups and discuss the performance review of the plans and agreement which had expired.

The preparation of three Forest Management Plans (FMS) of Bugala FMP in Sango Bay, Jinja-Bunya FMP in Kyoga and Kaabong FMP in Karamoja were all ongoing. A total of 89.2 ha external forest boundaries were re-opened and demarcated with 551 pillars in Namanve, Budongo, Bugoma, and Nakalanga.

Under plantation management, a total of 469 hectares of commercial tree plantations was established by NFA in Mbarara, South Busoga, and Mwenge, while a total of 2,041 hectares of commercial tree plantations were established on CFRs by licensed tree planters in Katugo, Lakeshore, Budongo, Kyoga, and West Nile Ranges.

Under supply of seeds and seedlings, the National Tree Seed Centre (NTSC) in Namanve produced and equitably supplied a total of 9,797,307 assorted seedlings to the community for mass tree planting under the Community Tree Planting Program (CTPP). More seedlings were produced for NFA planting in the ranges of Achwa, Budongo, Karamoja, Kyoga, Lake Shore, Muzizi River, Sango Bay, and South West, West Nile, South Busoga, Namanve TSC, Mbarara, Mwenge, Mafuga and Lendu. A total of 643kg of assorted seeds supplied by NTSC Namanve and 36 licenses were given to private tree farmers, 1 for harvesting, 9 for research, 2 for ecotourism, and 2 for filming.

A biometric system that captures staff data was procured and installed at the NFA headquarters to regulate access to the premises. Additionally, 131 staff (36 females and 95 males) were trained in capacity building programmes in map reading and silviculture practices.

Overall programme performance was good at 94.92% at half year (Table 3.10). Most targets especially under the three key outputs of management of CFRs and supply of seeds and seedlings and establishment and management of new tree plantations were met.



Some of the seeds (Pinus Caribea and Graveria Robusta) supplied to Kachungu sector in Lira District in Achwa range by NFA

**Table 3.10: Performance of the Forestry Management Programme by 31st December 2019**

Outputs	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Management of Central Forest Reserves	9,882,614,512	5,030,783,250	18213	12596.00	30.41	The CFR managed through restoration of degraded forests, preparation of FMP, boundary opening and demarcation however, the manpower is inadequate to cover all the CFRs.
Plantation Management	3,542,120,000	1,444,380,000	96366	40523	10.90	Plantations were managed through weeding, pruning, and maintenance of tree seed stands, protection and monitoring.
Supply of seeds and seedlings	9,402,193,000	3,799,880,068	31475103	13315678	28.93	Seeds and seedlings were supplied for both NFA and commercial tree planting. 50% of the funds were released in the rainy season, yet they are most required in the dry season to prepare seedlings for the rainy season. Lengthy and complex procurement of imports affects timely delivery of services.
Human Resource Management Services	8,728,273,833	4,718,686,916	100.	48	23.85	Staff were trained in outmap reading and silviculture practice. Salaries and insurance for staff were also paid.
Records Management Services	344,000,000	251,000,000	100	45	0.65	A biometric system with face recognition for all staff was procured and installed.
Establishment of new tree plantations	600,000,000	300,000,000	51480	2510	0.18	Commercial tree plantations were established by both NFA and licensed tree planters.
Programme Performance (Outputs)					94.92	Good performance

Source: NFA and Field findings



Challenges

- Degradation of natural forests due to encroachment and illegal timber/tree extraction to forests in protected areas.
- Unclear forest boundaries gave 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.

Conclusion

Overall performance of NFA against the set targets was good. Despite the effort by the NFA to achieve its NDP II objective of increasing afforestation, reforestation, adaptation and mitigate deforestation for sustainable forestry, the forest cover has improved at a slow pace from 9% in 2016 to 12.3% in 2020 against the NDP II target of 18% in FY2019/20.

This is attributed to the continuous encroachment and degradation of natural forests by illegal timber extractors, illegal titling of forest land and political interference in operations of the institution by local leaders and representatives hindering lawful eviction of encroachers and demarcation of forest boundaries. These challenges should be fully addressed for the agency to achieve its target of increasing forest cover to 18% by 2020 according to the NDP II targets.

Recommendations

- The NFA should strengthen coordination for Forest Law Enforcement and governance to reduce forest illegalities such as encroachment and illegal produce harvesting through public awareness.
- The NFA should be supported to continue re-opening and demarcating forest boundaries and cancel titles to address encroachment on forest land.
- The NFA should rehabilitate infrastructure and replace equipment e.g. transport (vehicles, boats and motorcycles) and forest stations/offices.
- The Uganda Land Commission, Kingdoms and District Land Boards should desist from titling CFRs land.
- The NFA should mobilize and lobby district leaders, communities and development partners to actively support forest conservation and tree-planting efforts.

Gender and Equity Considerations

In a bid to address the Gender and Equity concerns, the NFA provides protective gear to workers at the National Tree Seed Centre (NTSC) in Namanve and mostly employs women and youth at the Centre. The NFA also encourages women staff to participate in capacity building trainings that are provided. The youth and women are encouraged to benefit from supply of seedlings and tree planting licenses.



3.6 Uganda National Meteorological Authority (UNMA)

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 Organization (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 UNMA has one programme; National Meteorological Services

3.6.1 National Meteorological Services Programme

The Meteorological Services' Programme objective is to provide data and information on weather, climate, and climate change to support sustainable social and economic development of the economy.

The programme outcome of *'Increased access to real time meteorological information by the public'* contributes to the sector outcome of *'Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources'*.

The programme has four sub-programmes namely i) Finance and Administration, ii) Headquarters, iii) Policy and Research, and iv) National Meteorological Services and all were monitored for half year performance and the findings are presented hereafter.

The programme's approved budget in FY 2019/20 is Ug shs 26.76 billion, of which Ug shs 9.73 billion (36.4%) was released and Ug shs 7.98 billion (82.1%) expended by end of December 2019. The release was fair while the expenditure was good.

Physical performance

Under Project 1371, the UNMA improved the functionality of five manual weather stations, a climate change and vulnerability mapping in the four regions of the country was conducted, and disseminated and obtained feedback on the seasonal climate forecasting through eight regional radio talk shows in Kitgum, Gulu, Adjumani and Mbarara. Additionally, a customer satisfaction survey was carried out at Entebbe International Airport, Kajjansi, Soroti, and Gulu Aerodromes for feedback, and supported and maintained the four regional offices in Lira, Tororo, Mbarara and Kampala.

The procurement process for the formalization of land in Baku was concluded, while the land for the second weather radar in Rwamapara, Mbarara District on Mwizi Hill was fully paid for and acquired. Establishment of weather observation stations at four airfields of Kisoro, Mbarara, Pakuba and Kidepo and agreements for the Jinja land had not been done by half year.



The UNMA also installed 27 new rainfall stations out of a targeted 100, and provided rainfall cards to observers, provided 9,634 Terminal Aerodrome Forecasts and flight folders to enable air navigation in and outside the country. The June, July, August (JJA) and September, October, November and December seasonal forecasts were issued and translated into 35 local languages. The UNMA also increased the functionality of 4 out of 8 manual weather stations in Pachwa, Bulindi, Bududa and Rakai DFI. A MoU was signed with Makerere University to produce prototype data loggers to ease data collection.

The procurement of 100 Manual Rain gauges, 60 Digital thermometers, 30 Anemometers, 30 Evaporation Pans, 30 Soil thermometers, 10 Soil augures, 30 Digital Barometers, 2 Stevenson Screen, 30 Sunshine recorders, 300 Measuring Cylinders to be installed countrywide was at bidding stage.

A consultative workshop on Gender and Equity mainstreaming was held for the Gender Committee and UNMA staff resulting into the drafting of the initial Gender Strategy. Additionally, Village Weather Clinics (VWCs) were held in seven (07) villages namely Kacumbala, Akworo, Kawo, Komuge, Akera, Kidongole and Okicira in Bukedea sub-county in Bukedea District to establish impact of established VWCs on farmer's activities, while the farmer's handbook on use of weather and climate information in agricultural production is in its final draft stages.

Overall physical performance was fair at 54.51% (table 3.11). The fair performance was attributed to the delayed procurement of some equipment and non-release of funds to finance critical activities such as securing weather station sites with fences, sanitation facilities, office accommodation for weather stations and purchase of vehicles that are required to do the monitoring and supervision of the weather stations.

Table 3.11: Performance of the Policy, Planning and Support Services Programme by 31st December 2019

Outputs	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Administration and management support	2,745,663,448	1,182,791,655	312	91	7.02	Agreements for Jinja land not yet signed, while the board started its work in Q2 FY2019/20. A total of 25 media engagements were attained. The internal audit staff resigned and no substantive replacements have been made.
Strategic Management Services	44,300,000	12,950,000	20	10	0.17	The UNMA Board was constituted and started its work in Q2. Most of its activities were for Q3 and Q4.



Outputs	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
National Meteorological Training School (NMTS)	120,000,000	51,000,000	4	2	0.45	The NMTS was supported with subvention funds.
Human Resource Management Services	10,154,469,618	3,758,442,310	100	50	38.36	Staff salaries were paid and offices maintained.
Records Management Services	44,300,000	12,950,000	4	1	0.14	Some critical positions are not yet filled as UNMA did not have a Board for over two years. Procurement for assorted security equipment for the headquarters and tonner was ongoing.
Weather and Climate services	2,149,420,974	597,485,000	20781	10986	8.12	Weather station and rain gauges functionality improved across the country. Meters of weather stations in the East, North, West and Central regions of Uganda updated. Procurement of assorted weather equipment was at bidding stage.



Outputs	Annual Budget (Ug shs)	Cum. Receipt (Ug shs)	Annual Target	Cum. Achieved Quantity	Weighted Score (%)	Remark
Government Buildings and Administrative Infrastructure	744,000,000	200,000,000	42	1	0.25	Land for the second radar in Rwampara, Mbarara was fully paid for. Funds were yet to be released for other structures such as Aviation Weather Observation stations at 4 airfields of Kisoro, Mbarara, Pakuba, and Kidepo. Office accommodation and sanitation facilities for 10 weather stations of Kibanda, Ntusi, Mityana, Pachwa, Wadelai, Bududa, Namalu, Kiige, Kotido, and Ivukula.
Purchase of office and ICT equipment	332,500,000	0	40	0	0	Procurement of two high processing computes (HPC), and one server and communication facilities for 20 weather stations was at the contracts committee.
Purchase of Specialised Machinery & Equipment	9,927,300,000	3,771,721,000	627	0	0	Procurement of assorted weather equipment was at bidding stage. Procurement of Real Time Verification System (RTVS), and 4 Air Pollution Monitoring Stations was at initiation stage.
Purchase of office and residential furniture and fittings	210,000,000	0	160	0	0	Procurement of 20 office desks, 100 office chairs, 26, filling cabinets, 10 executive chairs, and 4 mini conference tables is at bid evaluation stage.
Programme Performance (Outputs)					54.51	Fair performance

Source: UNMA and Field findings



Challenges

- i. Lack of critical substantive staff in key positions at the National Meteorological Training School (NMTS) like Principal and Deputy Principal, and at UNMA like the internal auditor and human resource officer delayed implementation of some activities.
- ii. Limited manpower especially at the meteorological stations. As a result, majority of the synoptic stations are manned by 2-3 staff instead of 7, while the agro-met and hydro-met stations are manned by 1 staff instead of the recommended 4 under Quality Management Standards of ICAO and WMO. Some of the stations were completely closed because there was no staff to man them.
- iii. Transport constraints as the UNMA had few vehicles which affects field activities that inform the functionality and maintenance of weather stations.

Conclusion

Over the years, the UNMA has improved the timeliness for provision of its services especially seasonal and daily weather forecast product and translating them into local languages, however the UNMA has continuously had a challenge of inadequate staff. Some of the weather stations have no staff, while others have fewer staff compared to the internationally approved number of staff. Even with the establishment of a Board in 2019, the funding does not allow for the recruitment of all the required UNMA staff to fully execute its mandate.

In line with UNMA's NDP II objective of increasing the functionality and usage of meteorological information systems, the UNMA increased automation of climate monitoring network from 10% in FY2014/15 to 42.6% in FY2019/2000 basing on the number of LGs (122) when the target was set. However, the increase in the number of LG to 136 in FY2019/20 has lowered the score to 38.2%. Achievement of the NDP II objectives is still dependent on other factors that are still not yet sorted such as availability of all required human resource at all weather stations which is not yet attained by the UNMA. The weather stations have to be well funded to ensure full functionality and availability of information to inform decisions on weather related and weather dependent economic activities.

Recommendations

- i. The UNMA should fast track the recruitment of staff to fill vacant positions now that the Board is fully constituted.
- ii. The Cabinet should consider lifting the ban on purchase of new vehicles by the MDAs to enable them acquire vehicles to adequately execute their activities.

Gender and Equity consideration

In its bid to address Gender and Equity concerns, the UNMA established a Gender Committee comprising both female and male staff members. The Gender Committee members had a number of trainings on Gender and Equity and the sub-sector is developing the Gender and Equity Strategy. Additionally, the UNMA translates the weather, climate information warnings and alerts in 35 local languages. Women are also encouraged to join the National Meteorological Training School.



CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

The overall sector performance was fair at 60.3%. Good performers were National Environment Management Authority (84.9%), and National Forestry Authority (94.9%). The fair performers were Water for Production and Water Resources Management both at 69.7%; and Uganda National Meteorological Authority (54.5%); while the poor performers were: Local Governments at 37.6%; Natural Resources Management (40.4%); Rural Water Supply (44.4%); and Urban Water Supply (46.5%).

Good performers like NEMA and NFA achieved their key planned outputs like restoration of some fragile ecosystems. However, these did not go without challenges of continuous environmental degraders and wetland polluters through human settlement, industrial development and waste discharge. There were cases of illegal timber extractors, illegal titling of forest land and political interference in lawful evictions of encroachers and demarcation of forest boundaries.

Fair performer Water for Production concentrated on the construction of small scale irrigation schemes geared towards promoting high value produce, while combating effects of climate change. The Water Resources Management Programme continued its efforts of developing catchment management plans and restorations of critical degraded areas among others. Although the biggest challenge of the WRM is low budget allocations to the programme.

Poor performance was experienced in the DLGs, RWSS and UWSS programmes. However, the sector continued to implement the piped water supply schemes, point water sources and advocate for improved hygiene and sanitation under the rural and urban populations. Most works were characterized by delayed start due to late procurements. Ongoing projects suffered delays majorly caused by unresolved land conflicts, limited cash flows to pay contractor's certificates, unfavorable weather which halted works and design review changes among others.

As the sector tries to achieve the NDP II targets, it is still challenged by the sector wide approach to planning, leading to inadequate financing of programmes especially the Natural Resources and Water Resources Management. This may have a direct bearing on climate change mitigation and adaptation measures. So many projects were not completed within the expected time frame and sometimes political pressure interferences with implementation and enforcement of environmental laws.

4.2 Recommendations

- i) The NEMA should carry out their mandate and enforce the Environmental laws given the political support of the recent Presidential directive on evicting private encroachers on forests and wetlands.
- ii) The MWE should revisit their plans and scale down on planned outputs to fit in the available resources to avoid duplication and over planning.
- iii) The MWE should prioritize allocation of resources to key contributory programmes/DLGs/ENR in order to achieve the government/ NDPII targets.
- iv) The Ministry of Lands, Housing and Urban Development should expeditiously review the land



acquisition policy for development of government projects. Meanwhile only projects with clear right of way should be planned and implement to avoid further delays.

- v) 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.
- vi) The MWE should plan implementation of projects with approved designs to avoid time wastage and design changes amidst project implementation.



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ANNEX

Annex 1.1: WES Programmes monitored for Semi Annual Performance FY 2019/20

Vote / Programme	Sub Programme / Output and Location (District)
Vote 019 MWE	
Programme 0901: Rural Water Supply and Sanitation	<p>Sub Programme 0163: Support to RWS</p> <ul style="list-style-type: none"> - Construction of Shuuku-Matsyro WSS in Sheema district <p>Sub Programme 1347: Solar Powered Mini-Piped Water Schemes in rural Areas</p> <ul style="list-style-type: none"> - Construction of Nyamiyonga Katojo WSS in Isingiro district. - Construction of Kabuyanda WSS in Isingiro district. - Construction of Lirima II WSS in Manafwa district. <p>Sub Programme 1359: Piped Water in Rural Areas</p> <ul style="list-style-type: none"> - Construction of Rwebisengo-Kanara GFS in Ntoroko district - Construction of Lukalu-Kabasanda WSS in Butambala district - Construction of Bukedea GFS in Bukedea district <p>Sub Programme 1530: Integrated Water Resources Management and Development project (IWMDP)</p>
Programme 0902: Urban Water Supply and Sanitation	<p>Sub Programme 1188: Protection of Lake Victoria-Kampala Sanitation Program</p> <p>Sub Programme 1193: Kampala Water Lake Victoria Water and Sanitation Project</p> <ul style="list-style-type: none"> - Construction of Katosi transmission mains and Katosi Water treatment plant in Mukono district <p>Sub Programme 1438: Water Services Coverage Acceleration Project (SCAP 100)</p> <ul style="list-style-type: none"> - Construction of Kapeeka WSS in Nakaseke district. <p>Sub Programme 1524: WSDF East phase II</p> <ul style="list-style-type: none"> - Construction of Binyiny WSS in Kween district - Construction of Bulopa WSS in Kamuli district - Construction of Namwiwa WSS in Kaliro district <p>Sub Programme 1525: WSDF South Western phase II</p> <ul style="list-style-type: none"> - Construction of Kambuga WSS in Kanungu district - Construction of Buyamba WSS in Rakai district <p>Sub Programme 1529: Strategic Towns Water Supply and Sanitation Project (STWSSP)</p>



Vote / Programme	Sub Programme / Output and Location (District)
	<p>Sub Programme 1530: Integrated Water Resources Management and Development Project (IWMDP)</p> <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"> - Construction of Kayunga-Busaana WSS in Kayunga district - Construction of Kiwok-Butalangu WSS in Nakaseke district <p>Sub Programme 1534: WSDF North phase II</p> <ul style="list-style-type: none"> - Construction of Agago Town Council WSS in Agago district
<p>Programme 0903: Water for Production</p>	<p>Sub Programme 1396: Water for Production Regional Centre North</p> <ul style="list-style-type: none"> - Construction of Kiryanfufu small scale irrigation scheme in Nakaseke district. - Construction of Akworo small scale irrigation scheme in Kitgum district <p>Sub Programme 1397: Water for Production Regional Centre East</p> <ul style="list-style-type: none"> - Construction of Opiyai small scale irrigation scheme in Soroti district <p>Sub Programme 1398: Water for Production Regional Centre West</p> <ul style="list-style-type: none"> - Construction of Ntovu small scale irrigation scheme in Rakai district - Construction of Kyakayondo small scale irrigation scheme in Kasanda district - Construction of Kazo Valley Tank in Kiruhura district <p>Sub Programme 1523: Water for Production phase II</p> <ul style="list-style-type: none"> - Construction of Rwengaju irrigation scheme in Kabarole district.
<p>Programme 0904: Water Resources Management</p>	<p>Sub Programme 1302: Support for Hydro-Power Devt and Operations on River Nile</p> <p>Sub Programme 1348: Water Management Zones</p> <ul style="list-style-type: none"> - Monitoring of implementations in Albert Water Management Zone in Kabarole district - Monitoring of implementations in Upper Nile Water Management Zone in Lira district <p>Sub Programme 1424: Multi-Lateral lakes Edward and Albert integrated fisheries and water resources management (LEAF II)</p> <ul style="list-style-type: none"> - Construction of Mbegu fish landing/handling site in Hoima district - Construction of Mahyor fish landing/handling site in Kamwenge district



Vote / Programme	Sub Programme / Output and Location (District)
	Sub Programme 1487: Enhancing Resilience of Communities to Climate Change <ul style="list-style-type: none"> - Monitoring of implementations in Albert Water Management Zone in Kabarole district - Monitoring of implementations in Upper Nile Water Management Zone in Lira district Sub Programme 1522: Inner Murchison Bay Cleanup Project Sub Programme 1530: Integrated Water Resources Management and Development Project (IWMDP)
Programme 0905: Natural Resources Management	Sub Programme 1301: The National REDD Plus Project Sub Programme 1417: Farm Income Enhancement and Forestry Conservation Project Phase II <ul style="list-style-type: none"> - Construction of Doho II Irrigation scheme in Butaleja district - Construction of Mobuku irrigation scheme in Kasese district - Construction of Tochi irrigation scheme Oyam district - Construction of Ngenge irrigation scheme Kween district Sub Programme 1520: Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda
Vote 150 NEMA	
Programme 0951: Environmental Management	Sub Programme 01: Administration <ul style="list-style-type: none"> - NEMA regional office in Lira district. - NEMA regional office in Mbale district. Sub Programme 1304: Support to NEMA Phase II
Vote 157 NFA	
	Sub Programme 01: Headquarters <ul style="list-style-type: none"> - NFA offices Mbale district - NFA offices Lira district Sub Programme 0161: Support to National Forestry Authority
Vote 302 UNMA	



Vote / Programme	Sub Programme / Output and Location (District)
<p>Programme 0953: National Meteorological Services</p>	<p>Sub Programme 01: Headquarters</p> <p>Sub Programme 02: Finance and Administration</p> <p>Sub Programme 03: Training and Research</p> <p>Sub Programme 1371: Uganda National meteorological Authority</p> <ul style="list-style-type: none"> - Review of output performance under the subprogramme
<p>Votes: 501-850 Local Governments</p>	
<p>Programme 0981: Rural Water Supply and Sanitation</p>	<p>Sub Programme 0156: Rural Water (Conditional transfers for rural water)</p> <ul style="list-style-type: none"> - Implementation of the District Rural Water and Sanitation Development Conditional Grant (DWSDCG) in Kanungu, Mitooma, Ntoroko, Kamwenge, Manafwa, Namisindwa, Luuka, Kaliro, Hoima, Mubende, Kitgum and Omoro districts. <p>Sub Programme 07: Works (Conditional transfers to Sanitation and Hygiene)</p> <ul style="list-style-type: none"> - Implementation of the Sanitation and Hygiene grant in Kanungu, Mitooma, Ntoroko, Kamwenge, Manafwa, Namisindwa, Luuka, Kaliro, Hoima, Mubende, Kitgum and Omoro districts.

Source: Authors' Compilation



Plot 2 -12 Apollo Kaggwa Road
P. O. Box 8147, Kampala - Uganda
www.finance.go.ug

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