



THE REPUBLIC OF UGANDA

NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

ANNUAL CORPORATE REPORT FOR FY2017/2018





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ACRONYMS

ABS	Access and Benefit Sharing
ACODE	Advocate Coalition for Environment and Development
ADB	African Development Bank
AMCEN	African Ministerial Conference of Environment
ASGM	Artisanal Small-Scale Gold Miners
AU	African Union
BFP	Budget Framework Paper
BIOFIN	Biodiversity Finance Initiative
BOD	Board of Directors
CAO	Chief Administrative Officer
CBD	Convention on Biological Diversity
CBOs	Community Based Organizations
CDM	Clean Development Mechanism
CFCs	Chloroflourocabons
CFRs	Central Forest Reserves
CNOOC	China National Offshore Oil Corporation
CSOs	Civil Society Organizations
CSRs	Corporate Social Responsibilities
DEAP	District Environment Action Plans
DEOs	District Environmental Officers
DESS	Directorate of Environmental Support Services
DLG	District Local Government
DNRO	District Natural Resources Officer
DPP	Director of Public Prosecution
DPSIR	Driving Forces-Pressures-State-Impacts-Response
DSCPE	District Support Coordination and Public Education
DWD	Directorate of Water Development

DWRM	Directorate of Water Resource Management
EAC	East African Community
ED	Executive Director
EE	Environmental Education
EIAs	Environmental Impact Assessments
EIN	Environmental Information Network
EISs	Environmental Impact Statements
EMC	Environmental Compliance and Monitoring
EMLI	Environmental Management for Livelihood Improvement
EMS	Environmental Management System
ENR	Environment and Natural Resources
EPF	Environmental Protection Force
ESD	Education for Sustainable Development
ESIAs	Environmental and Social Impact Assessments
ETPs	Effluent Treatment Plants
EU	European Union
EWGs	Experts Working Groups
FY	Financial Year
F&A	Finance and Administration
GCF	Green Climate Fund
GEF	Global Environment Facility
GHGs	Greenhouse Gas Emissions
GIS	Geographical Information Systems
GOU	Government of Uganda
HCFCs	Hydrochlorofluorocarbons
HCW	Health Care Waste
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome

HPP	Hydro Power Plant
HR	Human Resource
HRD	Human Resource Development
IAD	Internal Audit Department
IAEA	International Atomic Energy Authority
ICT	Information, Communication and Technology
IEC	Information, Education and Communication
IGGPR	Inclusive Green Growth and Poverty Reduction
IUEA	International University of East Africa
IUIU	Islamic University in Uganda
KCL	Kidepo Critical Landscape
KPAs	Key Performance Areas
KRAs	Key Result Areas
KYU	Kyambogo University
LC	Local Council
LDC	Law Development Center
LDCs	Least Developed Countries
LECs	Local Environment Committees
MAAIF	Ministry of Agriculture, Animal Industries and Fisheries
MALGs	Ministries, Agencies and Local Governments
MDAs	Ministries Departments Agencies
MEAs	Multilateral Environment Agreements
MEMD	Ministry of Energy and Mineral Development
MFPED	Ministry of Finance Planning and Economic Development
MGLSD	Ministry of Gender, Labour and Social Development
MLHUD	Ministry of Lands, Housing and Urban Development
MOU	Memorandum of Understanding
MUBS	Makerere University Business School

MUK	Makerere University
MUST	Mbarara University of Science and Technology
MWE	Ministry of Water and Environment
NARO	National Agricultural Research Organization
NBIL	National Biodiversity Information Landscape
NBSAP	National Biodiversity Strategy Action Plan
NDP	National Development Plan
NEA	National Environment Act
NEF	National Environment Fund
NEMA	National Environment Management Authority
NFA	National Forestry Authority
NGOs	Non-Governmental Organizations
NiE	Newspaper in Education
NIPs	National Implementation Plan
NPA	National Planning Authority
NSOER	National State of Environment Report
NTV	Nation Television
ODSs	Ozone Depleting Substances
ODPP	Office of the Directorate of Public Prosecutions
OPM	Office of the Prime Minister
PBs	Project Briefs
PCE	Policy Committee on Environment
PEA	Political Economy Analysis
PIU	Project Implementation Unit
POPs	Persistent Organic Pollutants
PPEs	Personal Protective Equipments
PPI	Policy, Planning and Information
P/S	Primary School

RDC	Resident District Commissioner
RHS	Reproductive Health Services
SCOUL	Sugar Corporation of Uganda Limited
SDGs	Sustainable Development Goals
SEEC	School Environment Education Competition
SEEP	School Environment Education Programme
SLM	Sustainable Land Management
SMOGP	Strengthening the Management of Oil and Gas Project
TORs	Terms of Reference
TOTs	Training of Trainers
TSC	Technical Steering Committee
UCU	Uganda Christian University
TV	Television
UBOS	Uganda Bureau of Statistics
UEPB	Uganda Export Promotion Board
UMU	Uganda Martyrs University
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNRA	Uganda National Roads Authority
UTMU	Uganda Technology and Management University
UWA	Uganda Wildlife Authority
WCS	Wildlife Conservation Society
WED	World Environment Day
WRI	Water Resource Institute
WWF	World Wildlife Fund

FOREWORD

The National Environment Management Authority (NEMA) also hereby referred to as the Authority, is a semi-autonomous institution, established in May, 1995, under the National Environment Act, Cap. 153, and became operational in December, 1995, as the Principal Agency in Uganda, charged with the responsibility of coordinating, monitoring and supervising environment management in the country. The mandate and statutory functions of NEMA require that the authority should work in partnership and synergies with other stakeholders (lead agencies, local governments and other partners) to ensure effective environment management for sustainable development in Uganda.

NEMA has a five year strategic plan which focuses on five (5) Key Results Areas (KRAs) that is being implemented within the strategic directions of the authority (mandate, mission and objectives) and aligned to the National Development Framework; the National Vision and the National Development Plan (NDPII) in consideration of the regional and international obligations like EAC protocol on environment and natural resources, multilateral environmental agreements (MEAs) and the Sustainable Development Goals (SDGs). The Strategic plan is reviewed annually through planning and production of Annual Corporate Reports which enable the authority to provide information on its achievements; outputs and outcomes based on the institutional Annual Work plan. The annual report is used to assess and identify



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issues that need to be addressed, and provide appropriate recommendations for continuous improvement for effective environment management in Uganda. Besides, the Annual Corporate Report is an accountability and transparency tool that is statutorily required by Government of Uganda. The report has also been designed to meet stakeholders' expectations.

NEMA recognizes and appreciates the support given by Government of Uganda, the Policy Committee on Environment (PCE), the sector ministers, the NEMA Board of Directors, other ministries, agencies and local governments (MALGs), the Private Sector, Development Partners, Civil Society, the Media and communities. It should be noted that the increased support from Government of Uganda through more funding which has been used to recruit more staff and establish three more regional offices has had positive

impacts on the efficiency and effectiveness of NEMA. Besides, the Authority has continued to mobilize resources from the development partners especially the UN system through the Multilateral Environment Agreements (MEAs) for effective environment management in Uganda. The external support to NEMA has specifically supported the management of the environmental aspects of oil and gas, biodiversity conservation and sound chemical management through legislative reviews and enforcement, knowledge transfer (training and awareness), protection of endangered species and value addition to biodiversity resources for improving human livelihoods.



EXECUTIVE DIRECTOR,
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

Lastly, NEMA will continue to strive for improved institutional relevance, efficiency, effectiveness and sustainability within the ambit of its mandated functions of coordinating, supervising and monitoring environment management in Uganda. Such performance expectation is only possible through increased support to NEMA and MALGs for the enhancement of environment management capacity building at both central and local governments, including the private sector to ensure sustainable development in Uganda.

The UN Sustainable Development Goals



INTRODUCTION

1 INTRODUCTION

NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA

The National Environment Management Authority (NEMA); referred hereto as the *Authority*, is a semi-autonomous institution established in 1995. The Authority is the Principal Agency with the responsibility of coordinating, monitoring, and supervising environment management in Uganda. Further, the Authority advises Government and spearheads the development of environmental policies, laws, regulations, standards and guidelines for sound environment management in Uganda. NEMA also builds environment management capacity of other Government Ministries, Departments and Agencies (MDAs), Local Governments and other stakeholders.

2. OVERVIEW OF NEMA's STRATEGIC POSITION

The National Environment Management Authority (NEMA) is a semi-autonomous institution, established in May, 1995, under the National Environment Act (NEA), Cap. 153, Section 4, and became operational in December 1995, as the principal agency in Uganda, charged with the responsibility of coordinating, monitoring, regulating and supervising environmental management in the country. NEMA spearheads the development of environmental policies, laws, regulations, standards and guidelines; and guides Government on sound environment management in Uganda. NEMA's activities are focused on providing support to Government's main goal of ensuring sustainable development through the National Vision, the National Development Plan (NDP), regional and global commitments on sustainable development like the Sustainable Development Goals (SDGs).

2.1 Mandate, Vision, Mission, and Goal

The NEA, Section 5 stipulates the mandate of NEMA as the principal agency in Uganda responsible for the management of the environment by coordinating, monitoring and supervising all activities in the field of environment.

The **Mandate** is strengthened by the Vision, “An Efficient Agency, with People in Uganda living in a Clean, Healthy, Productive and Sustainable Environment”.

The **Mission** is “To promote and ensure sound environmental management practices for sustainable development”.

While the **Goal** is “To promote sound environmental management and prudent use of environment and natural resources in Uganda”.

2.2 The Development Objective

NEMA's development objective is "To create, establish and maintain an efficient mechanism for sustainable environment and natural resources management at the national, district and community levels.

2.3 The Core Values

Over the years NEMA has established a culture that pursues: client focus; integrity and transparency; professional motivation and commitment; innovation and creativity; open, cross-functional and all participatory decision making and problem solving; partnerships and collaboration; and, passion for sustainable environment.

2.4 Statutory Functions

As a regulatory Agency, NEMA draws authority which is embedded in the National Environment Act Cap. 153, Section 6, to:

- (i) Coordinate the implementation of the Government policies and the decision of the Policy Committee on Environment; ensure the integration of environmental concerns in overall national planning through coordination with the relevant Ministries, Departments and Agencies of government;
- (ii) Liaise with the Private sector, Inter-Governmental organisations, Non-Governmental and Governmental agencies of other states on issues relating to the environment;
- (iii) Propose environmental policies and strategies to the Policy Committee;
- (iv) Initiate legislative proposals, standards and guidelines on the environment in accordance with the NEA;
- (v) Review and approve Environmental Impact Assessments (EIAs) and Environmental Impact Statements (EISs) submitted in accordance with the National Environment Act;
- (vi) Promote public awareness through formal and non-formal education about environmental issues;
- (vii) Undertake studies and submit such reports and recommendations with respect to the environment as the Government or the Policy Committee may consider necessary;
- (viii) Ensure observance of proper safeguards in the planning and execution of all development projects, including those already in existence that have or are likely to have significant impact on the environment determined in accordance with schedule II of the National Environment Act;
- (ix) Undertake research, and disseminate information about the environment; prepare and disseminate the national state of the environment report (NSOER) once in every two years;
- (x) Mobilise, expedite and monitor resources for environmental management; and
- (xi) Perform such other functions as the government may assign to the Authority.

3. INSTITUTIONAL SET-UP

3.1 NEMA Structure

a) The Policy Committee on Environment (PCE)

The NEA, Section 7 provides for the Policy Committee on Environment (PCE), chaired by the Prime Minister. The PCE consists of the Ministers responsible for the following: Environment and natural resources; Agriculture, Animal Industry and Fisheries; Finance, and Economic Planning; Education and Sports; Trade, Tourism and Industry; Health; Gender, Labour and Social Development; Local Government; Works and Transport, and Energy and Mineral development. The Board Chairman and the Executive Director are ex-officials. The role of the PCE is to: provide policy guidance, formulate and coordinate environmental policies; liaise with the Cabinet on issues affecting the environment; identify obstacles to the implementation of those policies and programs; and, perform any other functions that may be assigned by the Government. The Minister responsible for Environment, who is also the alternate Chairperson of the PCE, provides overall policy direction, supervision, guidance, and monitors performance of NEMA and the implementation of government policies.

b) The Board of Directors (BOD)

The governance of the Authority is vested in the Board of Directors (BOD) as per NEA Section 8. The BOD is appointed by the Minister responsible for Environment. The role of the BOD (NEA, Section 9), among others, is to oversee the operations of the Authority, review the policy and strategic plan of NEMA; approve budgets and plans, monitor and evaluate the performance of NEMA, and provide guidance to the Executive Director. The BOD has three (3) standing committees that are responsible for; finance and planning, human resource and administration, and audit and risk management.

Furthermore, the BOD has four (4) Statutory Technical Committees (NEA, Section 10) which handle matters pertaining to: (i) Soil Conservation; (ii) Licensing of Pollution; (iii) Biodiversity Conservation; (iv) Environment Impact Assessment. Notably there are Adhoc Committees on the Development of Environmental Standards and Environmental Practitioners.

c) Management structure

The NEA, Section 12 stipulates the positions and roles of the Executive Director and Deputy Executive Director while Section 13 provides for other staff for day to day operations(management) of the authority. The NEMA Management (internal structure comprises the following directorates:

- (i) **Office of the Executive Director (ED's Office)** that is responsible for the oversight management of the Authority; policy guidance; resource mobilization and accountability;

- legal service provision; monitoring and evaluation; corporate communications; internal audit function; and procurement of works, goods and services (including disposal of assets).
- (ii) **Policy, Planning and Information (PPI)** which is responsible for policy integration across sectors; research; strategic and operational (activity) planning and budgeting; lead agency function; environmental information system and environmental reporting; information and communication technology (ICT); and library services.
 - (iii) **Finance and Administration (F&A)** which is responsible for financial management, human resource and administration of assets, property and logistics, transport/fleet of the Authority.
 - (iv) **Environmental Compliance and Monitoring (EMC)** that is responsible for environmental compliance monitoring, inspections and audit; environment and social impact assessment; management of natural resources (land use and soils, aquatic resources, and biodiversity); management of the environmental aspects of oil and gas; and coordination of MEAs projects (biodiversity conservation, emission reduction and sound chemical management)
 - (v) **District Support Coordination and Public Education (DSCPE)** which takes care of decentralized environment management through technical support; mentoring, monitoring and supervision of local governments; formal, non-formal and informal education programs.

3.2 Linkages with Line-Ministries and Districts

The line-ministries agencies constitute the horizontal linkage with NEMA; while NEMA is responsible for monitoring, planning and coordination of environmental matters, implementation role is the responsibility of the relevant line-ministries and agencies. Each sector (ministries and agencies) is charged with the responsibility of integrating environmental concerns into the respective sector plans and budgets for environment and natural resources management activities within its mandate. Moreover, sectors are expected to align their planning processes to the National Development Plan (NDP) while taking into account the provision of ENR in the NDP to ensure that environmental values and concerns are integrated in their sector development plans. The responsibility of NEMA, as a principal agency, is to ensure that the line ministries and agencies plan and budget for environment conservation within the principles of sustainable development.

3.3 Linkages with the districts

The districts form the vertical linkage with NEMA; the development of strong links between the resource users and the Authority is very crucial for effective environment management. NEMA has some support programs aimed at; building local government environment management capacity through technical back-stopping, mentoring, monitoring and supervision, information and knowledge transfer (training), and project support (environmental restoration, equipping and tooling) to enable local governments to sustainably manage the environment and natural resources. NEMA has over the years been supporting local government to; develop their respective District Environment Action Plans (DEAPs), formulate ordinances and bye-laws, recruit District Environment/ Natural Resources Officers, implement projects, among others.

3.4 Stakeholder Collaboration

NEMA ensures that environmental concerns are integrated into the planning processes at national, local governments, and community levels. Since environment management activities are a cross-cutting matter, this calls for networking and partnership with different stakeholders, to ensure sustainable socio-economic development. In the areas of environment management NEMA collaborates with various stakeholders including: donors/development partners; lead agencies; local governments; communities; NGOs/CBOs; media; academia; the public; individuals and the private sector. NEMA takes into account the interests, influences and powers of the respective stakeholders while promoting partnerships and synergies.

THE FOCUS OF THE FY2017/18 PERFORMANCE REVIEW

The performance review of NEMA for FY2017/18 focused on the organization's mandate and statutory functions while taking into cognizance the National Development Plan, Water and Environment sector goals, Environment and Natural Resources (ENR) platinum indicators; ENR Sub-Sector Performance Measurement Framework and the Key Results Areas (KRAs) in NEMA's five (5) year Strategic Plan (2015/16-2019/20). These KRAs are the performance pillars that are embedded in the Strategic Plan, which emphasizes continuous performance improvement to meet the new and emerging environmental issues, which among others include oil and gas, urban waste management, electronic waste, green economy pathways and initiatives, biodiversity loss, biotechnology and bio-safety, invasive species, and climate change.

The five strategic performance pillars or Key Results Areas are:

- (i) Environmental compliance, integrity and productivity enhanced;
- (ii) Green economy approach to ENR management developed and promoted;
- (iii) Strategic environment literacy, access to information and popular participation strengthened;
- (iv) Human and financial capacity of NEMA strengthened to perform its mandate and statutory functions; and,
- (v) National, regional and international partnerships for sustainable development strengthened.

The above KRAs (outcomes) are achievable through Key Performance Areas (KPAs-outputs) within the annual work plans and budgets to implement the five year strategic plan. Implementation of the annual work plan and budget are funded by Government of Uganda and National Environment Fund (NEF) as the two mainstream sources of financing complemented by off-budget external support from the United Nations System, bilateral partnerships with other governments like Norway, Multilateral Environmental Agreements (MEAs) and other Development Partners.



Water levels of the Rwizi wetland system have risen; however, the quality of water needs to be monitored.
(NEMA 2018)

ACHIEVEMENTS REALIZED BY NEMA IN FY2017/18

ACHIEVEMENTS REALIZED BY NEMA IN FY2017/18

The achievements realized by NEMA in FY2017/18 are discussed here below based on NEMA's mandate, the statutory functions, the strategic plan and the approved annual work plan.

KRA 1: ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT STRENGTHENED

Planned output targets

- (i) Review national legal frameworks for environmental management.
- (ii) Strengthen compliance to environmental laws, regulations, standards and guidelines.
- (iii) Coordination of the lead agencies.
- (iv) Undertake high level inspections and monitoring.
- (v) Support the restoration of the degraded critical fragile ecosystems.
- (vi) Equip the NEMA laboratory to support compliance monitoring functions of NEMA.
- (vii) Benchmark exercise to learn lessons from regional authorities on EIA review as per Presidential Directive.
- (viii) Complete the development of an Environmental Management System for NEMA.

Achieved outputs for FY 2017/18

1.1. Effective enforcement and compliance with policy, legal and regulations on environment

As mandated by law, the Authority continued to ensure implementation of the law, provided legal guidance and advice on application of environmental law and coordinated the management of the environment in liaison with lead agencies on matters of environmental concerns at all levels. Through this, the Authority undertook and supported litigation, worked with EPF to enforce the law and trained the different actors that support compliance monitoring. To the same effect, emerging policies, laws, standards and guidelines were developed and integrated as appropriate into formulated bye-laws and ordinances, regulations and standards in consultation with relevant stakeholders.

1.1.1 Litigation functions undertaken and supported

The litigation functions of the Authority were engaged responsively and strategically to deter environmental violations, and, to develop environment management strategies and systems, environmental crime prevention, as well as develop effective and appropriate working relationships with stakeholders and support enforcement and implementation of the law and encourage improved compliance. During the FY 2017/18, several legal issues and matters affecting the operations of the Authority arose and necessitated streamlined responses to the enforcement and compliance measures including litigation and prosecution. The litigation function handled and supported 90 cases as indicated below;

- a) 49 criminal cases due to illegal construction projects and facilities, wetland degradation, noise pollution, forgery, transporting hazardous waste without a licence and illegal sand mining;
- b) 41 civil cases arising from claims of wrongful evictions from wetlands and forest reserves, enforcement of a ban on polythene carrier bags, noise pollution, stone quarry activities, execution of statutory duties, wrongful issuance of EIA Certificate, trespass and restoration order, management of NEF Funds, termination of employment, breach of contract and access to information; and,
- c) 4 notices of intention to sue were served to NEMA.

Table 1: Cases Handled Under Litigation Function

SN	Issues	Criminal Cases	Civil cases	Total
1	Commencement without approval	9	0	9
2	Wetlands degradation and restoration	19	11	30
3	Noise Pollution	12	5	17
4	Forgery	4	0	4
5	Transporting hazardous waste without a licence	2	0	2
6	Illegal sand mining	3	0	3
7	Enforcement of the ban on Polythene carrier bags	0	1	1
8	Stone Quarrying activities	0	4	4
9	Breach of statutory duties and wrongful issue of EIA	0	11	11
10	Mismanagement of NEF Funds	0	1	1
11	Termination of Employment	0	2	2
12	Breach of Contract	0	1	1
13	Access to information	0	1	1
14	Notice of Intention to sue	0	4	4
TOTAL		49	41	90

Source: Legal Department, 2018

It should be noted that NEMA, within its mandate, has managed a number of cases of environmental crimes and public litigation successfully without attracting any liability to the Authority and Government of Uganda. The litigation function enhanced regulatory linkages with other MDAs such as the police, Attorney General, Office of the Directorate of Public Prosecutions (ODPP) and District local governments. This in turn strengthened the enforcement arrangements and streamlined the process to avoid exposing the Authority to liabilities and secure benefits of the environmental laws. Besides, the Authority has developed an operations manual to guide the different actors in enforcement and management of environmental crimes.

1.1.2 Environment Protection Force (EPF) supported

The Environmental Protection Force (EPF) operations supported NEMA enforcement mechanism through several activities, including; investigations, apprehension of suspects and compilation of evidence to support criminal prosecutions instituted against environmental offenders. EPF also supported service of orders and sanctions as seen in Table 2 below; issued under the administrative and quasi-judicial powers of NEMA like Environmental Restoration Orders, Environmental compliance Agreements and Environmental Improvement Notices.

Table 2: Number of Cases handled by EPF in FY 2017/18

SN	Issues	Total Number of Cases
1	Illegal structures (construction projects)	9
2	Wetlands degradation	59
3	Noise Pollution	33
4	Forgery	4
5	Transporting hazardous waste without a licence	2
6	Illegal sand mining	5
8	Closure Notices and suspension orders	6
9	Warning Notices	33
10	Restoration Orders	10
11	Improvement Notices	4
12	Compliance Agreements and MoU	2
13	Non Compliance with Restoration order	1
TOTAL		168

Source: Legal Department, 2018

Notably, some of the cases above have been prosecuted to conclusion with convictions, while others are under investigation and inquiry.

1.1.3 Lawyers, inspectors and police officers trained to support enforcement

NEMA trained the EPF Officers, NEMA inspectors and external lawyers on management of environmental cases. During the training, several issues were discussed and recommendations on how to strengthen the enforcement operations made to management. The recommendations were to promote close engagement between technical officers and legal department with support from the EPF regarding investigations and prosecution of cases; and acquire neccessary equipment to enable tehcnical officers give reliable report on risks, harm and level of degradation. These were further adopted by management and prioritized to guide implementation of activities during the FY 2018/19.

1.2 Policies, laws and standards integrated

1.2.1. Review of national legal frameworks for environmental management

The Authority has made significant progress in the review and drafting of environmental laws such as drafting of the National Environment Bill 2017 and National Environment Management Policy. The National Environment Bill has been presented to Parliament for review and approval. The Bill had a 1st reading in December, 2017 and was tasked to the Natural Resources Committee of Parliament for review and consultations with stakeholders. The Bill when enacted into Law, will address the gaps in the current National Environment Act, Cap 153; and take care of the new and emerging issues including management of the environmental aspects of oil and gas related activities, electronic waste, climate change, alien invasive species, environmental justice, biotechnology and biosafety, biodiversity loss and offset, payment for ecosystem services, strategic environmental assessment, access and benefit sharing, sound management of chemical and plastics, among others. NEMA equally reviewed several attendant regulations and developed new regulations as seen in Table 3 below; in anticipation of passing of the National Environment Bill.

Table 3: Legal frameworks reviewed by NEMA

SN	Reviewed policies, laws, regulations, standards and guidelines	Status
1	The National Environment Management Policy	Before Cabinet for approval
2	The National Environment Bill	Before Parliament for approval and enactment
3	The National Environment (Environment Assessment) Regulations, 2017	Pending finalization when the Bill is enacted into law
4	The National Environment (Waste Management) Regulations, 2018	Pending finalization when the Bill is enacted into law
5	The National Environment (Effluent) Regulations 2018	Pending finalization when the Bill is enacted into law
6	National Environment (Management of Ozone Depleting Substances) Regulations	Pending finalization when the Bill is enacted into law
SN	New regulations, standards and guidelines	Status
1	The National Environment (Oil Spill Prevention, Preparedness and Response) Regulations, 2018	Pending finalization when the Bill is enacted into law
2	The National Environment (Strategic Environmental Assessment) Regulations, 2018.	Pending finalization when the Bill is enacted into law
3	The Petroleum (Waste Management) Regulations 2018	Pending finalization when the Bill is enacted into law
4	The National Oils Spill Contingency Plan, 2018.	Pending finalization when the Bill is enacted into law
5	Guidelines for Strategic Environmental Assessment.	Pending finalization when the Bill is enacted into law
6	Guidelines for the Management of Landfills in Uganda	Pending finalization when the Bill is enacted into law
7	National Environment (Access to Environmental Information) Regulations	Pending finalization when the Bill is enacted into law
8	Guidelines for Payment for Eco-system Services	Pending finalization when the Bill is enacted into law

Source: Legal Department, 2018



In February 2018, NEMA conducted a high level consultative meeting with Members of Parliament at Speke Resort Munyonyo on the Draft National Environment Bill 2017. (NEMA, 2018).

1.2.2 Bye-laws and Ordinance development and formulation supported in District Local Governments

NEMA supported formulation of ordinances and bye-laws on environment and natural resources management in the districts of Moyo, Kitgum and Kaabong. Monitoring and evaluation of the status of application and implementation of the formulated bye-laws was conducted in the districts of Oyam, Otuke, Mbale, Buhweju and Dokolo and lessons adopted to inform planned activities. The beneficiary districts are expected to enforce the ordinances and bye-laws to improve on environmental compliance and integrity especially in regard to the fragile ecosystems like wetlands, forests, lakeshores and riverbanks.

1.3 Strengthen compliance to environmental laws, regulations, standards and guidelines

1.3.1 Review Environmental Social Impact Assessments (ESIA)

The Authority received a total of 1688 EIA related documents (TORs, Project Briefs and Environment Social Impact Statements) reviewed 1,469 in FY 16/17 below the set target of 2500). The projection to review 2500 was made on the basis of previous submission by developers/investors, reforms made by the Authority to improve on environment

impact assessment (EIA) review processes and the expected increase in the number of staff at NEMA. The target was not met because the expected number was not received from the developers recruitment of more staff was done in the middle of the financial year and not in the beginning of the financial year as anticipated.

However, NEMA Management has been able to review and conclude decision making on all the submitted reports and issued 807 certificates for investments/development projects.

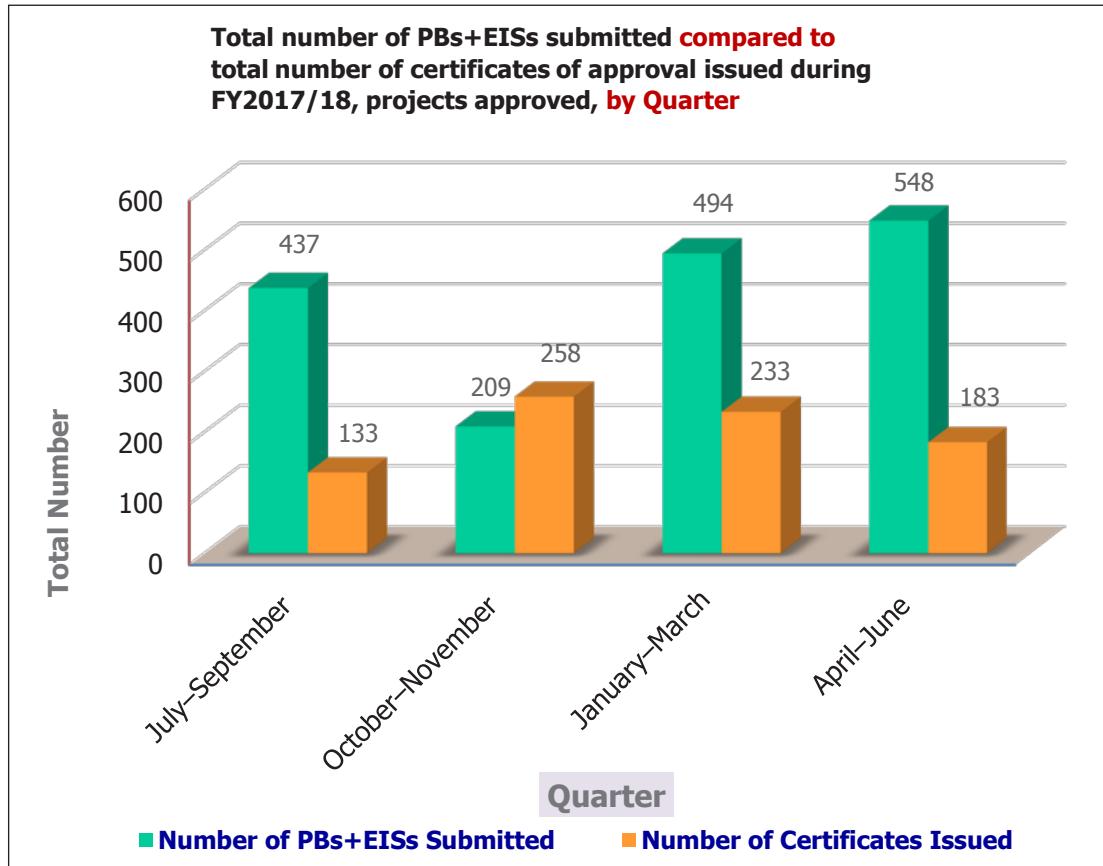
In addition to the administrative and technical reforms NEMA management introduced in FY2016/17, the Authority has in FY2017/18 reviewed the old guidelines and approval conditions and developed new ones based on sector clusters to enhance efficiency and effectiveness in the review and approval processes. Table 4 below illustrates the comparison between the number of project briefs (PBs) and environmental impact statements (EISs) submitted by developers those approved by NEMA, by quarter.

Table 4: Total number of documents submitted to and projects approved/certificates issued during FY2017/18, by Quarter

FY2017/18		
Quarter	Submitted	Certificates Issued (Projects Approved)
Year 2017		
July–September	437	133
October–November	209	258
Year 2018		
January–March	494	233
April–June	548	183
Total	1688	807

Source: Environmental Impact Assessment Department, 2018

Figure 1: Total number of Project Brief (PBs) Plus Environmental Impact Studies (EISs) submitted during FY 2017/18



Source: Environmental Impact Assessment Department, 2018

Notably five categories of projects that ranked highest in terms of EIA approval and certificates issued to the developers include Fuel facilities (200), infrastructure projects (194), Information Communications Technology (ICT) (123), processing/manufacturing Industries (105), and Mineral/mining (62) projects constituted the highest percentage (84.7%) of projects approved by NEMA.

In comparison, the ranking of categories of projects approved during the FY2017/18, from the highest percentage is as follows: 1st – fuel stations/facilities; 2nd – Infrastructure; 3rd – processing/manufacturing industries, 4th – education facilities, and 5th – minerals/mining.

Some of the key factors responsible for above ranking;

Infrastructure ;the trends depicted above, for the FY2017/18, reveal that commercial complexes (e.g., shopping malls, shops/arcades, markets), housing estates (residential apartments), office blocks, schools/colleges, new/upgraded roads, among others, have contributed to increased submissions to NEMA.

Fuel stations/facilities; the vehicular fleet in the country has increased tremendously as purchase of vehicles has increased including heavy-duty vehicles/trucks used in the industrial and construction sectors (e.g. roads, housing, electricity generators, and movement of people (trade, among others). Hence, increase in demand for fuels (petrol, diesel, Liquefied petroleum gas and paraffin) has also increased, including for generating electricity.

Processing/manufacturing industries; the demand for processed and manufactured goods has also increased – which include concrete blocks, bricks, asphalt plants, foods and beverages, dimension stones/aggregates, processed minerals (gold, cement, lime, roofing material, ceramics, tiles, pipes), fabricated metals, wood works, among others.

Education facilities; the school-going population is also growing. That is, the growing demand for classroom blocks, secondary and tertiary institutions, including facilities for skills development.

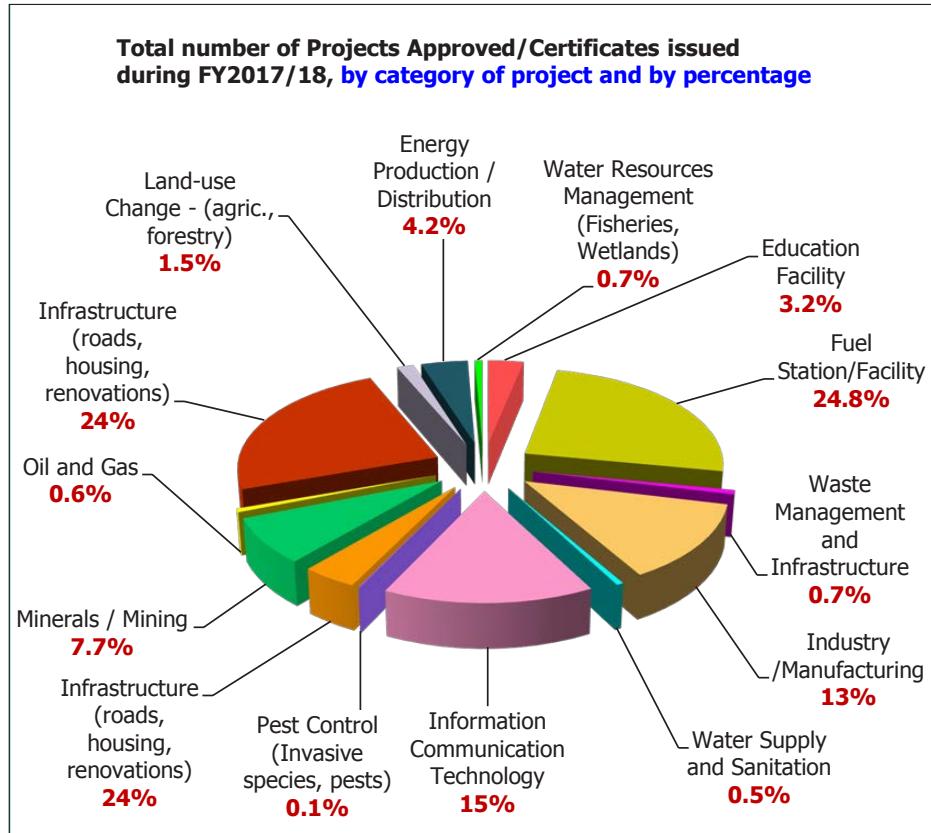
Minerals/mining; this category of projects is greatly influenced by facilities and activities that fall under 1, 2, 3, and 4 above – that result in extraction of minerals (murrum, stone/rock, sand, clay, limestone, gold, among others).

Table 5: Total number of Projects Approved / Certificates issued during FY2017/18, by category of project and by percentage

Category of Project	Total Number Approved	Percentage
Education Facility	26	3.2
Energy Production / Distribution	34	4.2
Fuel Station/Facility	200	24.8
Industry /Manufacturing	105	13
Information Communication Technology	123	15
Infrastructure (roads, housing, renovations)	194	24
Land-use Change	12	1.5
Minerals / Mining	62	7.7
Oil and Gas	5	0.6
Pest Control (Invasive species, pests)	1	0.1
Waste Management and Infrastructure	6	0.7
Water Resources Management (Fisheries, Wetlands)	6	0.7
Water Supply and Sanitation	4	0.5
Wildlife (Recreation/Leisure, Hotels)	29	4
Total	807	100.0

Source: Environmental Impact Assessment Department, 2018

Figure 2: Total number of Projects Approved/Certificates issued during FY2017/18



Source: Environmental Impact Assessment Department, 2018

1.3.2. Environmental Inspections and Audits

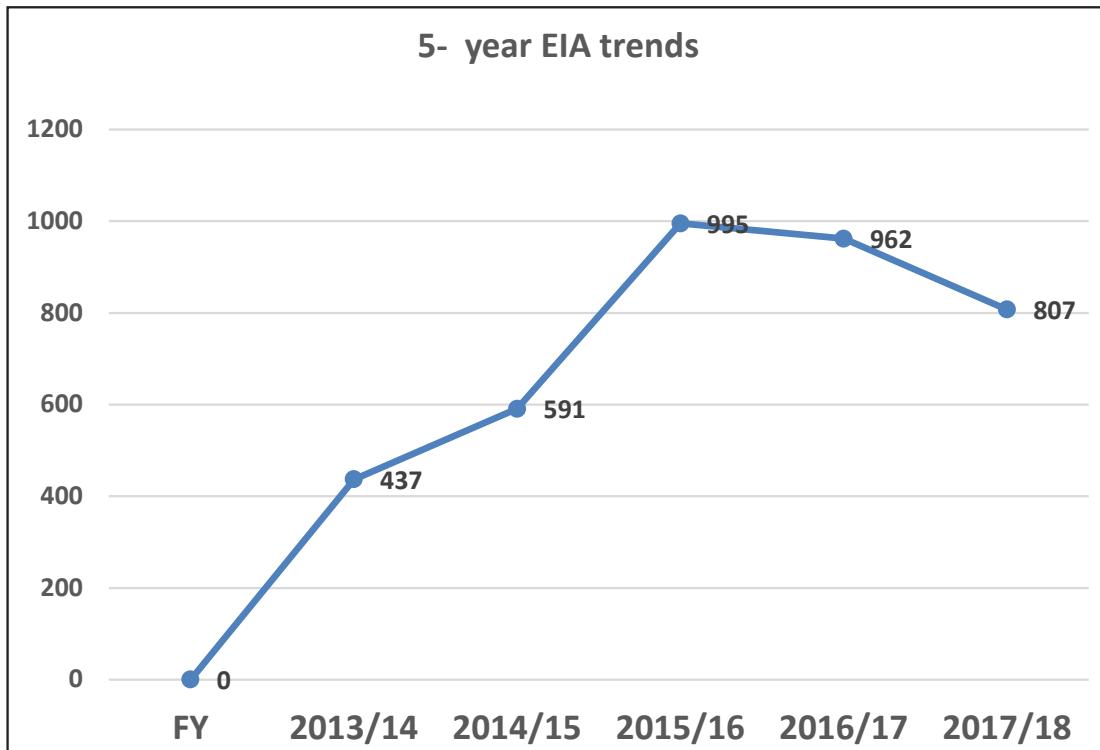
During the FY2017/2018, a total of 1,518 compliance and audit verification inspections were undertaken by NEMA, against the planned target of 1,400 representing an achievement of 108%.

Inspections were undertaken at various facilities and activities across the country, including players in the manufacturing and processing industry; waste management and health care; infrastructure like roads and transport projects; mining and quarrying activities that impact on the green environment. Compliance inspections were also carried out at major hydro-power projects; Isimba, Nalubale and Bujagali Hydro-Power Projects. Inspections were informed by the risk categorization of the facilities, the project location, and the compliance history of the facilities, as well as the environmental audit reports submitted for review.

In regard to industrial facilities, the main areas of non-compliance/concern observed during the inspections included; inadequate waste management infrastructure and practices. Waste water treatment plants were either lacking or not functioning effectively, and the facility owners did not

The Graph 1 below shows the trends in the approval of EIAs for the last 5 years.

Graph 1: Five (5) year trends of EIA



Source: Directorate of Environmental Monitoring and Compliance, 2018

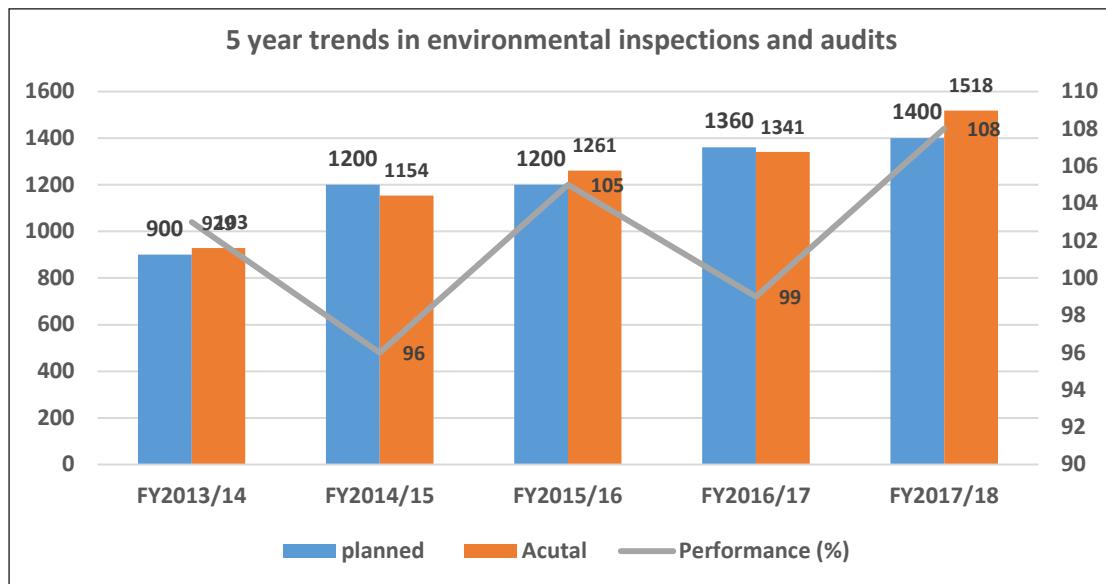
maintain record of waste water quality. Of particular concern in this regard were tanneries, distilleries, breweries and dairy processing plants. Emissions particularly from industrial boilers and burning of waste; owing to the fact that the main fuel source for boilrers are biomass and heavy fuel oil. Workers lacked appropriate Personal Protective Equipment. Resulting from the inspections, compliance agreements were prepared for Fine Spinners in Kampala, Tembo Steels in Lugazi and Mayuge Sugar (Steel Division) in Iganga District.

In regard to Isimba HPP, the inspections revealed that there is a general improvement in compliance at the project site and associated activities, the project has been rated at 85% up from 49% at the onset of the project. Pertinent issues of concern that remained unresolved included; compensation, the reservoir filling plan and an assessment of the biodiversity in the reservoir area, that should have been documented before the actual filling planned for August 2018 and commissioning of the project in December 2018; the decommissioning plan for the marram borrow area, among others. Some of the inspected industries, facilities and projects have developed internal environment management (regulatory) systems to ensure environmental compliance; such include breweries, cement industries, food processing, oil and gas, sugar industries, among others.

1.3.2.1. Trends in Inspection and Audits

The trends in inspections and audits over the years vary as actual performance is a function of availability of funding and the human resource. However, as noted, NEMA has always strived to meet the targets through initiatives such as the establishment of sectoral clusters as part of the internal reforms in the Authority, review of inspection and audit protocols (checklists and tools), multi-sectoral and high-level inspections.

Graph 2: 5 year trends of Inspections and Audits undertaken



Source: Directorate of Environmental Monitoring and Compliance, 2018

1.3.2.2 Air and Water Quality Monitoring

The Laboratory at NEMA has been equipped with air, water and noise monitoring equipment. This equipment has been utilized in drawing conclusive reports during several inspection and monitoring activities including the inspection of River Musamya; where it was established that the water quality of the river had not been significantly impacted by the activities of SCOUL; contrary to what had been reported in sections of the media.

Furthermore, river Musambya had been de-silted as guided by NEMA and the de-silting resulted into increased velocity of the river consequently increasing the concentration of oxygen in the water. The Analysis of water samples of River Musambya (both upstream and downstream) showed **slight water pollution** as seen in Table 6 below. The results were in compliance with the standards as stipulated in the National Environment (Standards for wastewater discharge into water or on land) Regulations, S.I 153-2.

Table 6: Analysis of River Musambya

Parameter	Distillery effluent - SCOUL	Plant effluent - SCOUL	Sugar factory ETP	R. Musambya upstream	R. Musambya downstream	R. Musambya at 2 nd bridge	Discharge standard
pH	7.9	8.1	8.2	8.2	8.2	8.2	6 -8
EC	139	677	978	84	107	114	1500
TSS	322	86	158	16	18	30	100
TDS	97.3	473.9	684.6	58.8	74.9	79.8	1200
T Alk				28	41	41	
SO4	8.5	143.2	<0.2	8.8	11.1	10.2	100
NH4	0.007	0.571	0.067	0.081	0.002	0.275	10
NO2	<0.002	<0.002	0.095	0.014	<0.002	<0.002	5
NO3	0.141	<0.02	0.812	0.815	<0.02	<0.02	10
TN	7.393	5.173	10.96	1.528	1.448	2.604	10
PO4	0.799	0.009	0.04	0.012	0.015	0.996	10
TP	0.991	0.341	1.154	0.104	0.036	0.8	10
BOD	8.9	7.6	14	4.9	8.6	8.6	50
COD	1520	295	235	<22	<22	<22	100

Source: Inspections and Audits Department, 2018



Ms Monica Angom, NEMA's Environment Inspector checks water quality in R. Musamya within the boundaries of Lugazi (left) and Air quality monitoring at SCOUL. (NEMA, 2018)



NEMA's Senior Environment Inspector, Jeniffer Kutesakwe with staff from Lugazi Sugar Works during support supervision on their Effluent Treatment Plant (ETP). (NEMA 2018)



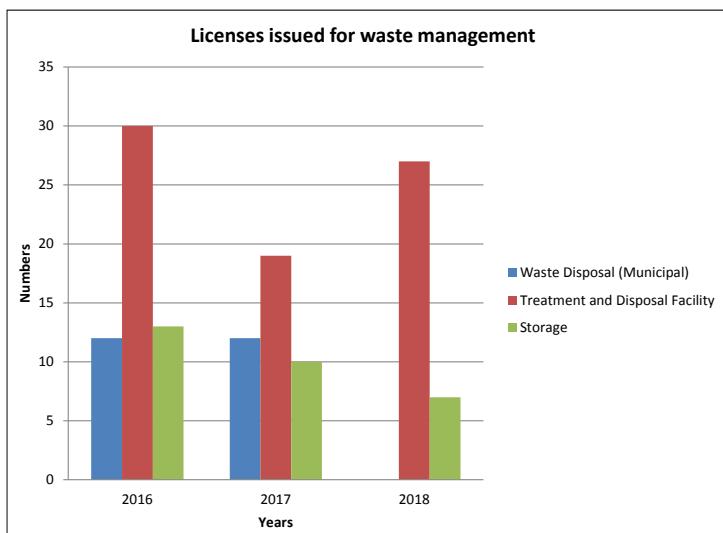
NEMA's Senior Environment Inspector, Jeniffer Kutesakwe (*L*) and the Principal Environment Inspector, Patience Nsereko (*R*) carry out inspections at Lugazi Sugar Works' ETP. (NEMA 2018)

1.3.3 Licensing of Pollution and Waste Management

1.3.3.1 Licensing of Pollution

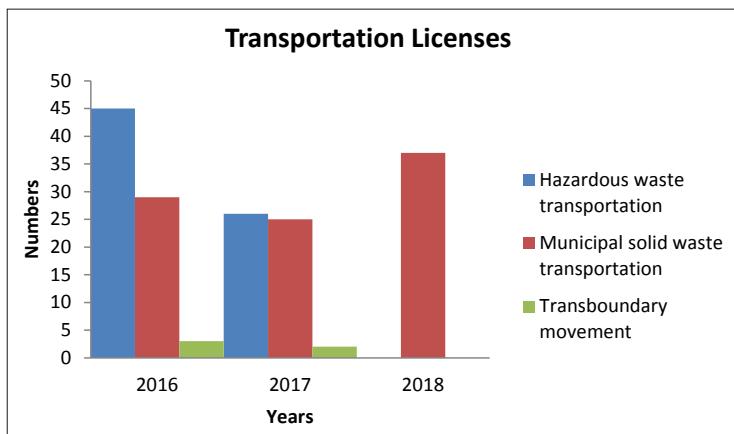
The National Environment (Waste Management) Regulations, S.I No.153-2, requires that a person intending to transport or store waste; own or operate a waste treatment plant; export or import waste should apply for a license from the Authority. A total of 101 applications for licenses were received for consideration in FY 2017/2018. Figure 3 below shows that, in FY 2017/18 there were more applicants for treating and disposal of waste compared to FY 2016/17 likewise the transportation licences to handle municipal solid waste as seen in Figure 4.

Figure 3: Licenses issued for waste management



Source: Directorate of Environmental Monitoring and Compliance, 2018

Figure 4: Licenses issued for transportation of waste



Source: Directorate of Environmental Monitoring and Compliance, 2018

1.3.3.2 Noise Pollution Control

The Authority is required to regulate noise pollution in line with the National Environment (Noise Standards and Control) Regulations, 2006. A total of 53 noise related complaints were received by the Authority as seen in Table 7 below, twenty-five (25) of which were registered with the Environmental Protection Force (EPF). The complaints were mainly related to noise from places of worship and bars as has previously been the case. Most of the offenders were served with warning notices and regular impromptu follow up monitoring visits to check on compliance. A total of Six (06) facilities had their music equipment's confiscated for violating the Regulation, while fifty three (53) offenders of noise related cases were presented for litigation for failure to comply with the requirements.

Table 7: Noise pollution related complaints handled in FY 2017/2018

	Complaints received	Complaints received	Warning notice issued
1	Churches	22	22
2	Bars	26	26
3	Mosques	03	03
4	Others	02	02
	Total	53	53

Source: Directorate of Environmental Monitoring and Compliance, 2018



The Pollution Control Committee 2018 during one of their meetings to review applicants for pollution control and management on 5th May 2018. (NEMA 2018)

1.3.4 Waste Management

1.3.4.1 Management of hazardous waste

Drilling Waste from Oil and Gas Exploration

All legacy waste generated from the oil and gas activities that had previously been consolidated at waste consolidation sites in the Albertine Graben, was successfully treated and disposed of at three existing waste treatment and disposal facilities in Hoima and Nakasongola District.

Health Care Waste (HCW) Management

Waste from health care facilities is increasingly of concern while there is limited infrastructure for such waste. NEMA and the technical committee on the licensing of pollution thus undertook inspections of selected hospitals around the country to assess the HCW management practices. These facilities among others included; Masaka Referral Hospital, Kitovu Hospital, Mbarara Regional Referral Hospital, Itojo Hospital, Kawolo General Hospital, Jinja Regional Referral Hospital, Iganga General Hospital, Kiryandongo General Hospital, Gulu Independent Hospital, Holy Innocent Children's Hospital, and Pentecostal Assemblies of God Hospital in Lira District.

Key findings to note are that 99% of the medical facilities sampled, with the exception of Itojo Hospital, did not have strategies in place for Health Care Waste (HCW) management, while 85% use poor methods of medical waste management. There is limited infrastructure for storage, segregation and final disposal of HCW. Common methods of disposal of health care waste at these facilities include; open burning and use of non-functional pits to dispose of the infectious waste (body parts and placenta).

Most of the inspected hospitals, including some private owned health care facilities have poor medical waste management practices. This is mostly attributed to a number of challenges faced by the facilities' management, including financial constraints, non-functional waste disposal facilities (incinerators), inadequate logistical supplies, limited technical support/ capacity building among others.

However, the inspections revealed that, a number of staff in the facilities have good attitude, the required knowledge and the will to ensure proper waste management, specifically medical waste hence the need to ensure the following is done;

- (i) Ensure adequate funding to the regional referral hospitals to enhance their capacity in ensuring proper medical waste management. This should include enhanced logistical supplies and increased funding for operational costs.
- (ii) Outsource incineration services from reputable and capable private sector entities. Regionalize medical waste management facilities, in addition to building capacity in local content.
- (iii) Ensure regular liaison with the International Atomic Energy Authority (IAEA) regarding

- repair of spoilt, final disposal and procurement of radiological equipment. In addition, gazette a central storage for all the non-functional radiological wastes generated from health care facilities.
- (iv) As much as possible Government of Uganda should avoid or control donation of medical equipment which have authentic information origin and manufacturing especially radiological equipment.

1.3.5 Assessment of Environmental Compliance to approved EIAs and Permits issued

Ninety nine (99) projects in 28 districts around Kampala were randomly selected due to their location in the fragile ecosystems around the country; to identify compliance parameters and key best practices, environmental compliance issues, gaps and challenges in the implementation of environmental guidelines and recommendations issued by NEMA. The assessed projects fall under the following sectors; energy, ICT, infrastructure, land use, mining and minerals, oil and gas, process and manufacturing, tourism, waste management and water supply as seen in Table 8 below.

Table 8: Proportion of Projects by Sector

Sector	Tally	Percent (%)
Energy (includes fuel stations)	6	6.1
ICT	1	1.0
Infrastructure	11	11.1
Land Use & Land Use Change	2	2.0
Mining	7	7.1
Oil & Gas	32	32.3
Processing & Manufacturing Industry	34	34.3
Tourism	4	4.0
Waste Management	1	1.0
Water	1	1.0
Total	99	100

Source: Monitoring and Evaluation Department, 2018

From the table above, majority (34.3%) of the projects were from processing and manufacturing sector, followed by oil and gas and infrastructure sectors with 32.3% and 11.1% respectively. The key environmental compliance issues identified included; poor waste management (14.4%), workers without PPE (8.3%), poor air quality monitoring (7.7%), absence of fire fighting equipment, and absence of ETP (7.2%).

Several recommendations were made, the most significant being acquisition of wetland use permits (38.4%), display of EIA certificates (15.2%), acquisition of necessary permits (10.1%), undertaking of annual audits (8.1%), contracting certified waste handlers (5%), provision of adequate PPE (4%), implementation of guidelines and conditions of approval (3%), and installation of firefighting equipment's (2%) to mention but a few.



NEMA's Internal Monitoring and Evaluation Manager, Mr. Fred Onyai addressing Environment management leaders from selected Local Governments during a team building meeting on the Presidential Directives on Fragile ecosystems. The meeting was held in January 2018 at NEMA House.

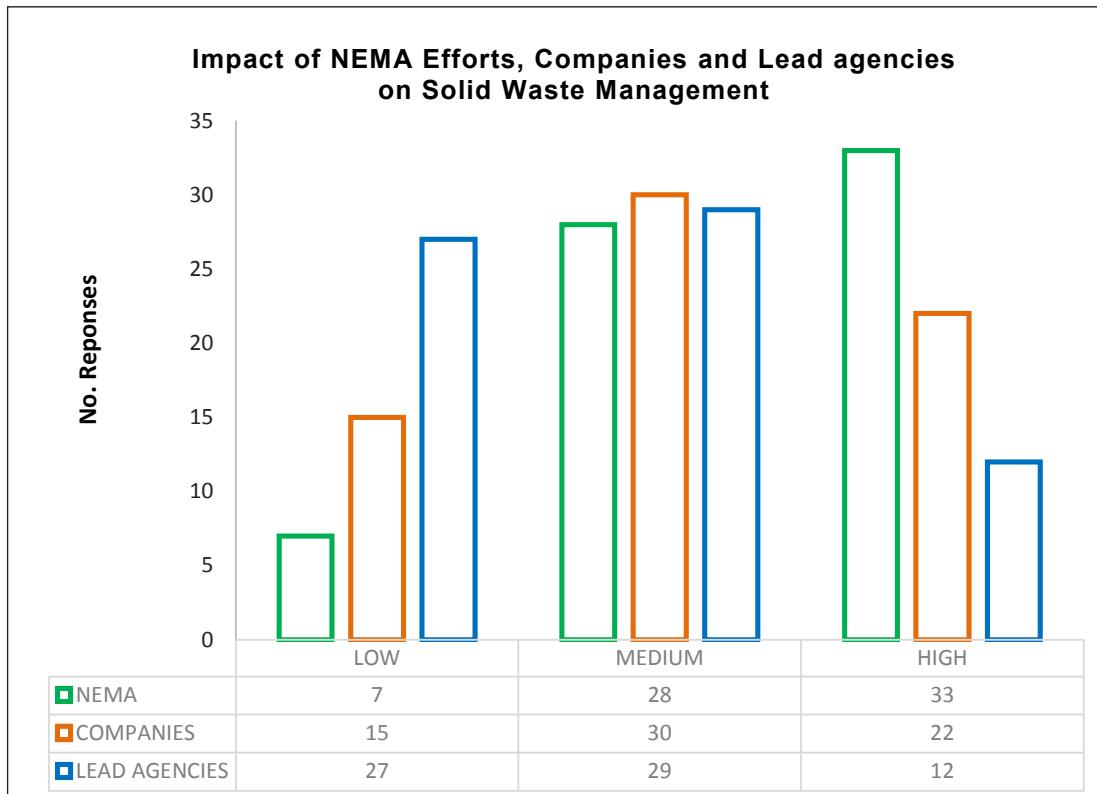
1.3.6 Assessment of Inspected Facilities

NEMA under took an assessment of eighty three (83) facilities regarding their compliance status to environmental standards and regulations. The key categories assessed include manufacturing/processing, energy, mining, infrastructure, ICT, oil and gas, forests and wetlands, waste management.

1.3.6.1 Solid Waste Management

Compliance to solid waste management has increased by 6.9% from an average level of 54.6% to 61.5%. Factors contributing to the increased compliance include: use of licensed waste handlers (18.1%), reuse of waste generated (9.6%) and a keen willingness to comply to waste management ordinances (10.8%). A total of 39.7% of the facilities inspected indicated that NEMA's efforts generated high impacts when compared to 14.4% of lead agencies and companies; the environment management performance impacts have been categorized as low, medium and high in scale and ranking as shown by Figure 5 below.

Figure 5: Impact of NEMA efforts and other key stakeholders on inspected facilities



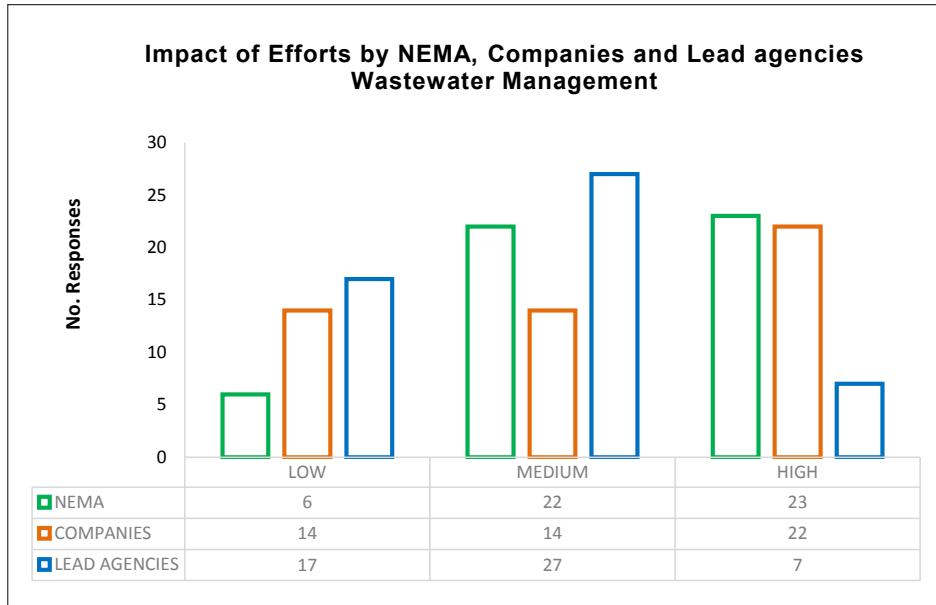
Source: Monitoring and Evaluation Department, 2018

Notably, inadequate monitoring by NEMA and MALGs (due to resource constraints low staffing level and funding) and ineffective implementation of the recommended mitigation measures by the companies/developers were cited as the main reasons for the low and medium positive impacts on environment management performance compliance levels. Recommendations to improve solid waste management included the need for increased sorting of the waste at the point of generation or at source (16.9%), increased facility monitoring (4.8%), increased recycling (4.8%), sensitization (1.2%), and enhancement of waste management at facility level (19.3%).

1.3.6.2 Waste Water Management

Compliance to the management of wastewater has improved by 9.9% from an average compliance level of 52.7% to 62.6%. Factors responsible for the increased level of compliance include a willingness by industries to comply to advice offered by NEMA (4%), investment in waste water treatment plants (8%), and reduction in the amount of waste water generated (2%) as seen in Figure 6.

Figure 6: Compliance to management of waste water



Source: Monitoring and Evaluation Department, 2018

In order to increase compliance developers recommend the following; construction of water treatment facilities; increased monitoring and compliance; and, licencing of ETPs.

1.3.6.3 Chemical Management

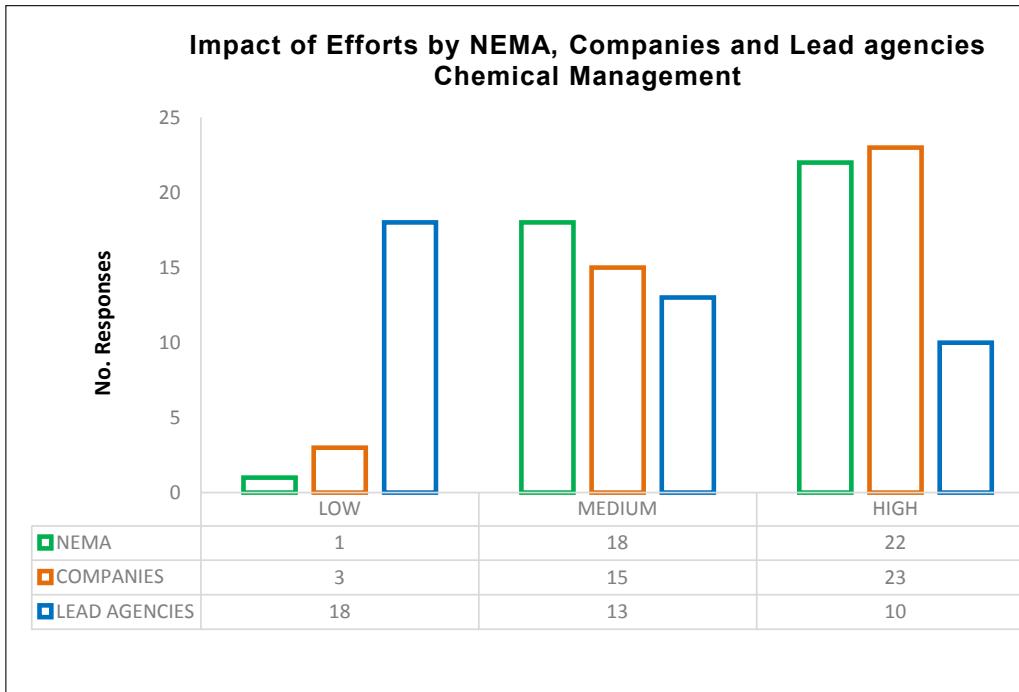
Compliance to chemical management improved by 6.3% from average compliance rate of 63.3% to 69.6%. Factors contributing to increased chemical compliance include safe storage of chemicals (20.5%), training of workers (7%), company commitment (3.6%), positive response to NEMA's advice (1.2%) and willingness to comply to chemical use regulations (44.8%). Impact of interventions from the different actors is demonstrated as seen in Figure 7 below.

Impacts from NEMA's interventions were high for 22 facilities, medium for 18 facilities, and low for one facility. Contribution by lead agencies was lowest among all actors. Increased compliance in chemical management will require close monitoring (6%), vigorous record keeping (3.6%), proper disposal facilities (3.6%), training in chemical use (9.6%), and creation of restricted chemical use and storage areas (10.6%)

1.3.6.4 Occupational Health and Safety

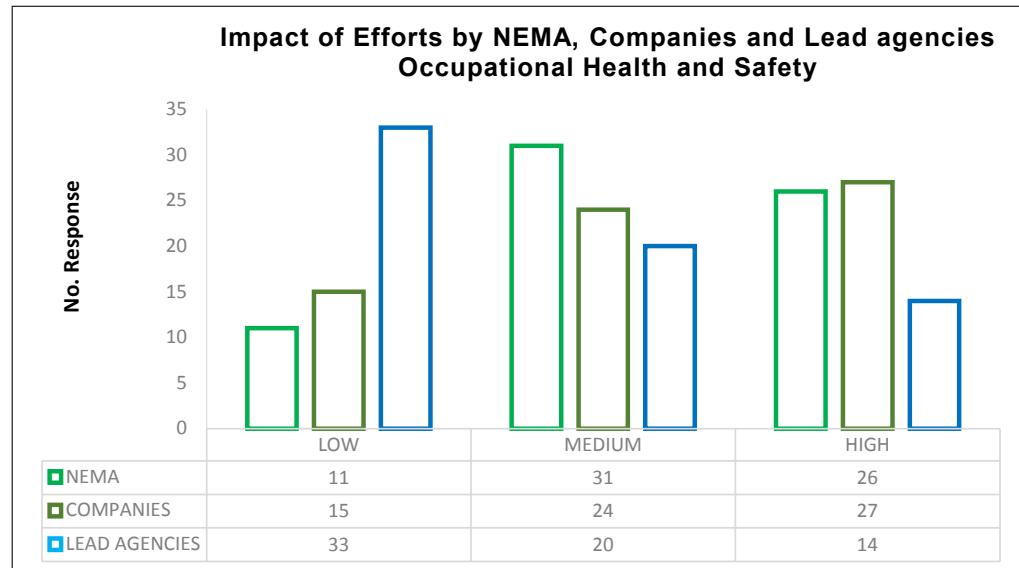
Compliance to occupational health and safety standards increased by 8.7% from an average compliance rate of 48.6% to 57.3%. The increase is attributed to use of PPE (38.5%), company commitment (15.7%) and willingness to comply to standards (7.2%) to mention but a few. The impact of interventions by NEMA for different actors is seen in figure 8. Recommendations to foster increased compliance include provision of workers with PPEs (32%), and training of workers on the importance and use of PPE (23%).

Figure 7: Compliance to chemical management



Source: Monitoring and Evaluation Department, 2018

Figure 8: Compliance to Occupational health and safety



Source: Monitoring and Evaluation Department, 2018

Recommendations for improvement on environmental compliance by facilities and projects

NEMA should improve on and ensure regular environmental compliance, monitoring and inspections to improve on and sustain environment compliance. This is possible due to the increased funding and staffing of the Authority as well as establishment of the regional offices.

Compliance assistance efforts to companies should continue to ensure that all industrial facilities have a self-regulatory policy and systems like Environment Management System (EMS); improved/modern technologies; such as effluent treatment plants, recycling plants, and staffing for environment management.

- a) The need for increased support (funding and staffing) to local governments and other lead agencies.
- b) The multi-sectoral and multi-media environment compliance monitoring and inspection should be sustained to ensure all concerned parties and stakeholders are involved.

1.3.7. Use of GIS to inform decision making

The Authority acquired Geographical Information Systems (GIS) equipment and software, and updated the electronic web-based database to support EIA and permit reviews and other activities through GIS/Remote sensing data acquisition, processing and analysis to aid timely decision making during the processes of reviewing EIAs and issuing of permits. The spatial database of 614 existing development projects was established and mapping of approved development projects in the Districts of Jinja, Bugiri, Buikwe, Mbale, Soroti, Kumi, Sironko, Bukedea, Pallisa, Busia, Tororo, and Manafwa Masaka was undertaken. The spatial maps enhance the analysis and forecasting of environmental impacts of such projects through inspections, audits and regular reviews to ensure that the development activities are environmentally compliant. (see Annex 3)

1.3.8. Support the operation of the One-Stop Centre

The One Stop Centre that is linked to Uganda Investment Authority (UIA) received 3 electronic submissions through the e-biz applications, 25 inquiries, 10 complaints from the walk in clients. The numbers are still low because not many people aware of these services. More awareness is recommended for effective functioning of the centre. These statistics (Annex 3) provided are for half of the financial year when NEMA had a desk office at the One Stop Centre.

1.3.9. Oil and gas activities

All activities related to oil and gas have under gone EIA and have been given permits to ensure environmental and social safeguards. NEMA has continued to carry out environmental compliance monitoring and inspections by its staff and the respective government agencies to ensure that the oil and gas companies and their auxiliary entities are compliant to environmental laws and regulations. Besides, the efforts of NEMA and its partner government agencies like Directorate of Water Resource Management (DWRM), DESS, National Forestry

Authority (NFA), Uganda Wildlife Authority (UWA) have been positively demonstrated by the absence of incidences of environmental disasters and biodiversity conservation within the Albertine graben; taking into account that this is an ecologically sensitive region and very important for tourism and thus the biodiversity and the landscapes have continued to attract tourists as a source of revenue amidst oil and gas activities.

1.3.10 High level Multi sectoral Inspections and Monitoring

NEMA undertook high level strategic multi – sectorial monitoring and inspections of critical infrastructure development projects. These areas include; Isimba Hydro Power project (HPP), Karuma HPP, and the critical oil roads to ensure that the infrastructure projects adhere to environmental and social safeguards as established in the EIA and permit approval conditions.



NEMA Board and staff at one of the high level inspections and monitoring of Karuma Hydro Power Project. (NEMA 2018)



Inspection of the Dam Intake area at the Karuma Hydropower Plant by the NEMA Board and staff. (NEMA 2018)

1.3.10.1. The Isimba HPP

Isimba Hydro power project is one of the biggest hydro power projects under construction. The facility was issued an Environmental Impact Assessment (EIA) approval Certificate by NEMA, NEMA/EIA/6240 on 19th May, 2015. There has been an improvement observed from the facility operations in relation to environmental standards, regulations; and in line with the recommendations from previous inspections conducted at the facility site. This is attributed to the continuous monitoring compliance inspections carried out at the facility by NEMA and the respective MALGs.

As indicated by Table 9 below, the project is complying with the EIA approval conditions and the recommended environmental and social safeguards.

Table 9: Current Implementation status of the Isimba project

Description	Percentage Completed
Civil Works	87.56%
Electro Mechanical Works	92.31%
Hydro Mechanical Works	92.12%
Transmission Line	80%

Source: Directorate of Environmental Monitoring and Compliance, 2018

1.3.10.2 The Karuma HPP

The inspection of the Kawanda – Karuma Transmission line included Kawanda Sub-Station, Kiryandongo storage area, Karuma Sub-Station and the different tower points where foundation construction works for 150 out of 340 towers have been completed. It should be noted that the inspection activity also identified emerging issues that included trench separating the community and the site of the substation, non-compliances at Camp-5, new areas identified for possible restoration, exotic/alien species, dumping of construction waste within the river bank and the project associated transmission line among others. There is general compliance improvement at the project site including aeration and air quality in tunnels, PPE, effluent management and recycling, and waste management. Other mitigation measures such as ecological flow, fish ladder, anti-scouring, dam safety monitoring instrumentations etc., have been provided for in the designs of the dam and inlet structures.

1.3.10.3 The critical oil roads

The proposed “Critical Oil Roads” have been created as enabling road network that will facilitate first oil production in Uganda by 2020. NEMA in collaboration with other lead agencies such NFA, Ministry of Energy and Mineral Development (MEMD), Ministry of Gender, Labour and Social Development (MGLSD), Ministry of Lands, Housing and Urban Development (MLHUD) and District Local Governments inspected the roads to identify several social and economic aspects with the community.

The proposed upgrade of eleven (11) roads by Uganda National Roads Authority, (UNRA), have been categorized into seven projects for the proposed upgrade of the Kyotera -Rakai Road (20km), Masindi-Buiso Road, upgrading of Lot 4 Critical Oil Road R4 (Kabaale -Kiziranfumbi), R5 (Kaseeta Lwera Via Bugoma Forest) and R7 (Hohwa-Kyarushesha-Karokarungi), Buhimba-Nalwyeo-Kakindo-Kakumiro Road (Lot 5&6) traversing six (6) districts of Buliisa, Nwoya, Ntoroko, Masindi, Hoima and Kakumiro (93km). The main outcomes from these meetings was identification of positive and negative impacts, and propose enhancement and mitigation measures respectively as;

Developing a comprehensive waste management plan before the commencement of the activities. This should include a description of possible waste streams from the project for waste tracking and segregation including storage, treatment, recycling and final disposal. The developer undertakes responsibility to conduct induction to the contractor and sub-contractor teams on the Environmental and Social Safeguard policy and any other applicable laws, regulations and standards; and strict penalties imposed for non-adherence.

Working with UWA, NFA and relevant Lead Agencies to put in place and implement a monitoring plan to ensure that effects on flora and fauna are identified and where possible avoided, eliminated or reduced. Put in place speed control measures like Speed limits, signage, humps to reduce speed especially in sensitive areas for animal crossing and social services. Where breeding sites are identified for example nests in trees, or snakes in wetlands; care shall be taken to relocate these without damage or temporarily halt construction until hatching /offspring are mobile. In addition,

specific information on livelihoods, culture health and social networks were collected from focus groups to inform future Government interventions.

1.4 Support to restoration of critical degraded fragile ecosystems

During the FY 2017/18, NEMA undertook numerous restoration activities of critical degraded fragile ecosystem. The key findings of concern at the time were issues pertaining to restoration activities, securing of sedimentation tanks, alien species, biodiversity offset, fish ladder, water stagnation, aquatic weed and soil erosion among others. In Rwizi catchment, the key findings from the field visit were;

Levels of landscape disturbance and ecosystem degradation have reduced due to increased compliance checks (monitoring and inspections by NEMA) and the push for the restoration of the degraded sites. However, more interventions are required to ensure that all the degraded sites are fully restored and more environmental compliance assurance through regular monitoring and inspections by NEMA, Local Governments and other government agencies.

The sand drying bed under construction was not approved by NEMA; the Authority halted the construction works while the investor is negotiating with Ministry of Water and Environment (Directorate of Water Development-DWD) that would like the structure for water supply tanks. The local revenue collected from the sand transporters is controlled and managed by Lukaya Town council without the involvement of Kalungu District Local Government which is responsible for environmental compliance within the sand mining areas and yet the Town Council does not provide support to complement the efforts of the District Local Government. The Board advised that the Town Council should remit part of the revenue from sand mining to the District Local Government to facilitate environmental compliance enforcement activities.

The wetlands within Mbarara District (Rucece- Kafunjo, and Rwemigina – Kaburangire systems) were still being encroached and degraded by cultivation and illegal structures despite the restoration interventions. However, the restored parts of the wetlands had started to regain their ecological values. It was also noted that some of the communities were supportive to restoration and enforcement interventions due to the benefits they reap from wetlands like grass for mulching and livestock feeding.

Part of Kanyabukanja-Katara wetland system in Buhweju district that had been restored was regaining its ecological integrity steadily although certain areas were still being degraded through drainage, cultivation and planting of eucalyptus trees. The Minister and the Board advised NEMA and the District Local Government to step up sensitization and enforcement. Meanwhile the District should plan and budget for more restoration activities. Notably, the District has an Ordinance that should facilitate enforcement of the law.

The restored part Nakivale lakeshore was recovering steadily as seen by the increase in water level and lake/water vegetation species. However, the Board advised for more political commitment,

sensitization and dialogue with the communities (both host and the refugee communities) to ensure all the degraded parts of the lakeshores are restored and compliance enforcement effected by NEMA, the District Local Government and other partners. It was recommended that, NEMA should; improve on efficiency and effectiveness of the Mbarara regional office, improve on environmental enforcement and compliance in local governments, increase environmental literacy through continuous public education and awareness and enhance environment capacity management of Local Governments.

The key support to restoration of degraded fragile ecosystems include the following;

- a) Limoto wetland system (Pallisa and Kibuku Districts)
- b) The regulated communities were engaged through sensitization and community *barazas*/ meetings which included local government and community leaders for 2 years.
- c) An inventory of the wetland system carried out to determine the status and activities in the wetland.
- d) 100ha of the wetland has been restored through eviction and planting of trees and rhizomes.
- e) The wetland has begun to regain its ecological and social economic functions as demonstrated by the emergence of the flora and fauna and livelihood activities like water and fishing.
- f) Owing to the success of restoration activities in Limoto, the wetland system has been selected for the implementation of wetland conservation interventions supported by Green Climate Fund, United Nations Development Programme (UNDP) and Government of Uganda.



Limoto wetland recovered steadily following intervention by NEMA, Local Government officials and local leaders.

Rwizi catchment

The regulated communities were engaged through sensitization and community barazas/meetings which included local government and community leaders for 1 year.

- a) An inventory of the wetland system carried out to determine the status and activities in the wetland.
- b) To date over 900 ha of River Rwizi and its catchment had been restored targeting both the lower catchment (Lake Kakyera) and the upper catchment (Kanyabukanja-Katara-Nyakambu wetlands system in Buhweju District).
- c) NEMA launched the restoration of River Muzizi through an engagement with the leadership in districts that share River Muzizi to develop consensus and plan for restoration. The districts engaged in the meeting were Kyenjojo, Kyegegwa, Kagadi and Kibaale. Participants included; Resident District Commissioners (RDCs), Local Council 5 (LCV) Chairpersons, Chief Administrative Officers (CAOs), District Technical Officers, Sub County officials and Council members. 80 participants attended the meeting; 16% female and 84% male.
- d) NEMA supported the enforcement of the ordinances and byelaws in Mitooma and Buhweju Districts to ensure that the upper Rwizi catchment is protected from degradation while Isingiro and Ntungamo Districts have been trained to develop their ordinances and byelaws.
- e) The restored wetlands have begun to regain their ecological and social economic functions as demonstrated by the emergence of the flora and fauna and livelihood activities like water and grazing. NEMA has continued to carry out environmental enforcement within the Rwizi catchment where some degraders have been taken to courts of law for prosecution for environmental crimes.



Part of Kanyabukanja-Katara wetland system in Buhweju District regenerating its ecological function. (NEMA 2018)



A community member explains the history of the Kanyabukanja-Katara wetland system in Buhweju District. (NEMA 2018)



The sedge species growing along the Rucece-Kafunjo wetland system in Mbarara District after restoration (NEMA 2018)



Water levels of the Rwizi wetland system have risen; however, the quality of water needs to be monitored.
(NEMA 2018)



Community participation in the restoration of the Rucece and Kafunjo wetland systems in the River Rwizi catchment, Mbarara District. (NEMA 2018)

Lubigi wetland (Kampala and Wakiso)

The regulated communities were engaged through sensitization and community barazas/meetings which included local government and community leaders over the years. An inventory of the wetland system was carried out to determine the status and activities in the wetland. Restoration orders were issued to the regulated communities and ample time was given for eviction. Evictions were carried out to protect over 100ha of wetlands.

Kyetinda wetland (Kampala and Wakiso)

The regulated communities were engaged through sensitization and community barazas/meetings which included local government and community leaders over the years. An inventory of the wetland system was carried out to determine the status and activities in the wetlands. Restoration orders were issued to the regulated communities and ample time was given for eviction but the community appealed against the order. A public hearing and sensitization was organized to address the grievances and communities were given additional time to relocate.

Muzizi wetland (Kagadi)

The Authority undertook several restoration interventions for the protection of River Muzizi and its critical catchment and over 300ha of degraded land was restored. NEMA also supported the District Local Government of Pallisa to restore over 200ha of wetlands in Oladot system covering sections of Lake Kawi and Lake Ajapet which were degraded by rice cultivation and other human activities.



A man walks through a degraded stretch of Muzizi wetlands in Kigarare subcounty, Kyenjojo District. (NEMA 2018)



**Part of the Muzizi wetland System which had been cleared for cultivation in Kigarare Sub county.
(NEMA 2018)**



Restoration along Muzizi wetalnd system was conducted by NEMA and Kyenjojo District Local Government. (NEMA 2018)

Sand mining areas

NEMA reduced the number of sand mining companies at Lwera from 19 to 6 based on environmental compliance status of the companies. The six (6) compliant companies are; Capital Estates, Seroma Ltd, Parkson Hongkomg, Aqua World, River Katonga Ltd and Jory Ready Mix. The permits of other companies expired and were not renewed, others were withdrawn/cancelled due to environmental non-compliance while 2 companies (Tesco and Simpson Birungi) were taken to court and are expected to restore the sites they degraded. The Authority developed national sand mining guidelines that will be used by NEMA and other Ministries, Departments and Agencies (MDAs); and investors involved in sand mining industry/business. The guidelines are expected to facilitate sustainable sand mining.



A sand mining area in Lwera, Mpigi District, where overburden was used to kickstart restoration of the wetland system. (NEMA 2018)

Rwizi catchment Wetland Restoration Prioritisation in selected districts

Using Local knowledge, historical information on previous interventions and observation on the level of degradation, all identified wetland systems were ranked for prioritisation purposes as shown in Table 10 below.

Table 10: Prioritization list of wetlands

Wetland Name	Priority Ranking for restoration
Buhweju District	
Kyeyale-Kyamozi	High
Kamira	Low
Rulangala	High
Muti-Kijumbura	High
Kanunka	Medium
Rukondo	High
Kabaale	Medium
Kanyabukanja	High
Nyabirerema	High
Rugongo	Low
Kankara	Medium
Kyenjogyera	High
Mushasha	High
Kibimba	High
Katenga	High
Kirungu	High
Nyakiragujuu	High
Sheema District	
Kandekye-Ruhorobero	High
Ngoma	High
Nyeihanga Bridge	Medium
Nyakambu	Medium
Kitojo-Kyanjenyi	Medium
Kamira	High
Runinya-Katanoga	Medium
Mbarara District	
Kashasha	Medium
Ihoho	High
Kongoro	High
Bujaga-Buteraniro	Low
Rucece	Medium

Source: Directorate of Policy, Planning and Information, 2018

Rwizi catchment - wetlands that require immediate interventions in selected districts

Among the highly prioritised wetlands mentioned above, more discussions were held to identify those that require immediate interventions as discussed in Table 11 below.

Table 11: Wetlands for immediate interventions

WETLAND NAME	REASON
Buhweju District	
Kyeyale - Kyamozi	This wetland is strategically located at the entry point into Sheema District and so is important for Sheema DLG
Rulangala	There is high political interest in this system due to the profile of the major degrader - being an LC3 Chairperson. Also, this site is in Nyakishana Sub county where there have been no restoration interventions before
Kanyabukanja	There is need to intensify interventions to ensure full recovery/regeneration of the site and to ensure no re-encroachment
Mushasha	Restoration interventions were carried out on these two wetlands. However, there is need for more interventions to ensure non re-encroachment and full recovery
Kyenjogyera	
Kiirungu	
Nyakiragujju	Here is a confluence of 3 streams, wetlands are highly degraded and is located in Burere Sub county where no restoration interventions have been done before.
Sheema District	
Kabwohe	This wetland is located in the vicinity of an expanding town. There is need to secure the remaining portions of the wetland to safeguard against further encroachment as the town expands
Kamira	This is a vast expanse of wetland that has been highly encroached by agricultural farmers. However, it still has a high recovery potential. There is high political interest in this site
Kandekye-Ruhorobero	This is a vast stretch that has been drained and converted for cattle farming. There is high political interest in this site
Mbarara District	
Ihoho	This is a workable priority area that has a potential to exhibit visible recovery gains after restoration. This was agreed upon the District Natural Resource Officer together with the mapping team. This is due to the severity of degradation and a high probability of recovery of the hydrology after restoration.

Source: Directorate of Policy, Planning and Information, 2018

The following are the proposed recommendations for sustainable management of the Rwizi catchment;

- a) Synergized approach to wetland restoration to avoid duplication of activities;
- b) Support communities to develop bye-laws to regulate cattle grazing and extraction of papyrus in newly resorted wetlands in order to allow regeneration;
- c) Undertake mapping and physical demarcation of all the priority or vital wetlands in the Rwizi catchment; and,
- d) Regular monitoring of human activities and enforcement within the catchment especially gold mining in Buhweju district and farming within the entire catchment.

1.5. Protection of threatened species and rangeland ecosystems

The Authority supported protection of threatened species such as the shea butter trees (*Vitellaria paradoxa*) and *Afzelia africana* and rangelands in Northern, North Eastern and West Nile region. The key support to restoration of degraded fragile ecosystems include the following;

NEMA undertook enforcement to protect threatened species and the rangeland ecosystem in the six (6) districts of Amuria, Alebtong, Lira, Katakwi, Napak and Nakapiripirit as well as holding a high level meeting with the district leaders, technical staff and representatives and local community based organizations. The meeting was to brief the district political leadership on NEMA's ongoing programme on the protection of threatened species in the rangelands and the environment in general as seen in Table 12, and obtain political support and participation of the district leaders on the enforcement interventions in the districts.



The threatened Shea butter trees (*Vitellaria paradoxa*). (NEMA 2018)

Table 12: Social and Environmental Issues faced by the districts

Katakwi District	Napak District	Nakapiripirit District
Rampant tree cutting for charcoal burning	Poor sanitation and hygiene especially in relation to the management of faecal matter	Uncontrolled massive cutting of trees for fuel and building materials
Limited environmental monitoring and compliance enforcement on the commercial production of charcoal (uncontrolled trade in charcoal)	High levels of illiteracy which limits the workforce and innovation base for environmental and natural resources management and for the attainment of other development goals	Brick burning
Rampant bush burning during the dry season which affects vegetation regeneration	The high rate of prevalence of street children which reduces the amount of potential human resource available for environmental and natural resources management in the district	Rampant bush burning that affects both human settlement units and pasture land
Unchecked wetland encroachment for rice growing, that acts as a driver for floods across the district	High rates of HIV prevalence which affects the welfare of the communities in the district and the quality of manpower to undertake conservation efforts	Uncontrolled commercial charcoal production especially in places like Nakoit, causing rapid loss of biomass and biodiversity
Poor agricultural practices especially in relation to methods and technologies for clearing land	Conflict between communities and government agencies over protected areas like Nabwal and Napak hills. This is a major issue because almost 60% of the district's landmass lies in areas that are protected	
Prolonged dry spells	Settlement in low-lying areas which interferes with natural water ways and hence causes flooding in the low lands of the district	
Frequent occurrence of floods and their growing intensity	Rampant alcoholism which fuels alcohol-for-charcoal trade between the residents of the district and charcoal traders, thereby driving charcoal burning and tree cutting across the district	
Unplanned development of urban centres	Development of urban centres without land use and physical planning	

Source: Natural Resource Management – Department of Biodiversity and Rangelands, 2018



Impounded shea trees that were cut for charcoal trade

06/10/2017

Furthermore, the Authority undertook compliance monitoring and enforcement of the threatened species and the rangeland ecosystems in the districts of Katakwi and Napak with an emphasis on the role of local communities in protecting the environment. The communities also expressed concern that they face security threats because some of the environmental degraders collaborate with the security agencies to protect them while they are destroying the environment, hence the need for the enforcement team to be more regular on the ground. While in Nakapiripirit district, the local communities stated that the greatest challenge was poverty which has affected their stream of income thus they resorted to the use environmental resources like trees for charcoal burning as a source of income.

NEMA undertook enforcement focusing on protection of shea butter trees (*Vitellaria paradoxa*) and *Afzelia africana* in the (six) 6 districts of Nebbi, Arua, Yumbe, Lamwo, Gulu and Pader and several piles of *Afzelia* logs were found along Adodi security road, waiting for loading and subsequent transportation to Kampala in Lamwo district, while in Gulu, the enforcement was mainly in Palaro, Bungatira and Patiko which are known for illegal cutting and trade in *Afzelia africana*. In Pader district, the enforcement covered the sub-counties of Pajule, Angagura and Latanya. Pader District Local Government is clearing illegal charcoal.

NEMA further trained shea butter oil producers in 3 sub counties namely Uleppi, Okollo and Arvu sub counties in Arua district. The training was to equip shea butter oil producers with knowledge and skills on value addition and marketing as well as post-harvest handling.

Insert pictures



Minister of Water and Environment, Hon. Sam Cheptoris (standing middle) with other awardees for the International Biodiversity Day (IDB) National celebrations held in Agago District on 22 May 2018. The stakeholders were awarded for their work in protecting the Sheanut Tree. Standing 4th from left back row is Francis Ogwale, CBD National Coordinator at NEMA; and (1st from left on the front row) James Ateker, is the Project Manager, Kidepo Critical Landscape project at NEMA.

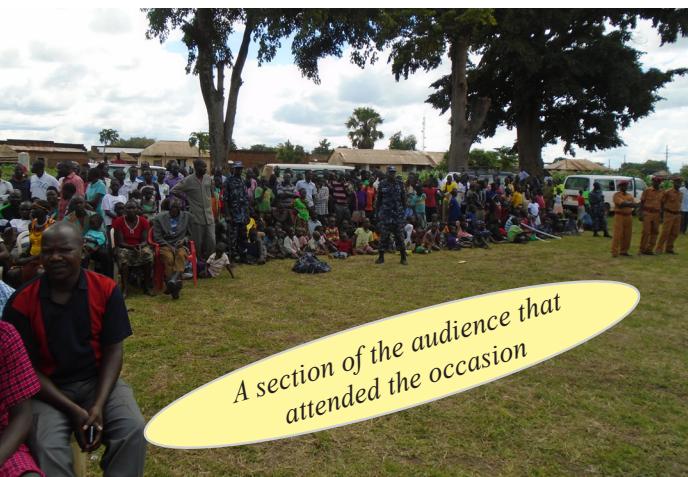


NEMA's Deputy ED, Ms Christine Echookit Akello addresses participants at the International Day for Biodiversity Public Dialogue held on 15th May 2018 at the Uganda Museum, Kampala. Discussions revolved on the role of Government and other actors in Biodiversity management over the last 25 years since Uganda ratified the CBD. Below are more pictures from the dialogue.



INTERNATIONAL BIODIVERSITY DAY (IDB)

Theme: Action: For Nature



CELEBRATED IN AGAGO DISTRICT ON 22 MAY 2018



Minister of Water and Environment, Hon. Sam Cheptoris, who also officiated at the IDB National celebrations, opens the Market Information Centre in Otuoke District as one of the measures to protect the Shea Butter.



Minister of Water and Environment, Hon. Sam Cheptoris inspects Exhibitions mounted by Groups that are involved in activities promoting value addition of Shea nut tree products.



Another group displays Shea nut products (left); while Hon. Sam Cheptoris inspects NEMA Exhibition stall mounted by NEMA and CBD projects at NEMA namely, RIO Conventions, CONNECT and KCL.



Banana plants in a demonstration garden at the Mukono CDM Site (NEMA 2018)

KRA 2: A GREEN ECONOMY APPROACH TO ENR MANAGEMENT DEVELOPED AND PROMOTED

Planned targets for FY2017/18

- (i) Technical support supervision and inspections of District Local Governments.
- (ii) Technical support to Clean Development Mechanisms (CDM) sites
- (iii) Promote knowledge on Access and benefit sharing
- (iv) Support Research and Policy Decision
- (v) Support to the Implementation of the National Biodiversity Strategy Action Plan (NBSAPII)

Achieved outputs of FY 2017/18

A green growth approach and promotion includes strategies that consider environment and natural resources as natural capital for livelihood and economic growth without compromising its capacity to sustain the current and future society needs while taking the inherent environmental functions and services through life support systems like water, carbon and carbon cycles. Environmental degradation diminishes the natural capacity of nature to sustain human livelihood (basic needs like food, fresh air and clean water), economic growth and ecological balance (life support systems).

NEMA has been promoting the green growth pathways in Uganda through the support to the integration of ENR in the national development framework (the NDP, sector plans and local government development plans); sensitisations and trainings of Ministries, Agencies of government and Local government (MALGs), waste management initiatives (municipal solid waste and electronic wastes); contribution to value addition to natural resources especially biodiversity; and studies/research. In this regard, the Authority made the following contributions to green growth pathways in FY2017/18;

2.1 Technical Support supervision and inspections of District Local Governments

The Authority has continued to build the capacity of sectors and local governments to integrate ENR values and concerns in their development plans.

NEMA trained officers from key MDAs in basic economic accounting and valuation of natural resources as an initiative for establishing green accounting in the national accounting system; sensitized 36 district leaders and environment managers in selected districts in western and eastern Uganda to appreciate and prioritize environmental values as source of community livelihood and revenue generation for local governments; regional cluster meeting was organized in Hoima for the district leaders and environment managers of Bunyoro region district local governments (Kiryadongo, Masindi, Buliisa, Kibaale, Kakumiro and Kagadi Districts, Hoima and Masindi Municipalities (9 LGs) attended by 78 participants (23% female and 77% male).

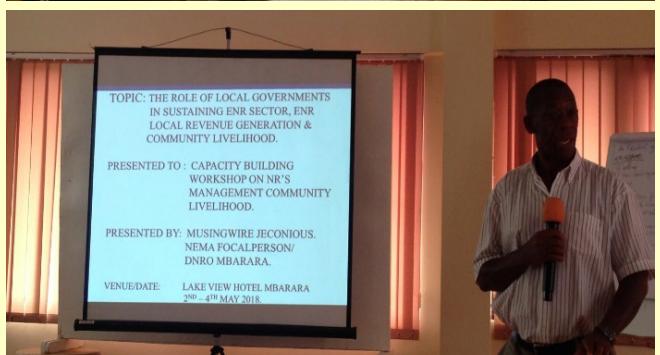
Sensitization workshops to develop capacity, create awareness on sustainable environment management were also undertaken. A total of 91 local governments were mentored and 30 new Environment Officers were trained on decentralized environment management as a means of achieving green growth. With support from UNDP and Government of Uganda, NEMA trained 335 (36% females and 64% males) members of Local Environment Committees (LECs) in Mbarara and Otuuke districts. The main objective of the training was to build the capacity of the LECs in decentralized environment, especially in ensuring effective community sensitization on environmental values and concerns and enforcement of the law at local level.

Six (6) Local Governments (Kiboga, Kyankwazi, Kassanda, Gomba, Butambala and Mpigi) were engaged in strengthening decentralised environment management and NEMA's functionality. A total of three hundred sixty (360) participants (30% women, 70% men) were met.

Community environment compliance meetings (community barazzas) were undertaken in Kyenjojo District (Sub counties of Bufunjo, Nyankwanzi, Kigarare and Kigarare Town Council) and Kassanda District (Kyoga Parish, Kassanda and Bukuya Town Board) where six hundred (600) people attended the meetings of which 50% were women and 50% men. The training further guided the Authority in identifying ecosystems, and on know how to develop local revenue collection instruments which can be used to increase local revenues for environmental management activities.

To ensure increased sustainable use of environment and natural resources for job creation and livelihoods through increased Compliance monitoring, enforcement and sensitization of local communities, NEMA undertook a capacity building training in the Rwizi and Kyoga catchment areas with extra support from UNDP.

There were eighty three (83) District and Municipal Environment, Natural resource and Planning officers from twelve (12) districts in the Rwizi catchment area, including Districts of Isingiro, Kasese, Ibanda, Bushenyi, Kamwenge, Sheema, Mitooma, Ntungamo, Buhweju, Rakai, Mbarara and Kiruhura.



A cross-section of participants, and RHS (above), Mr Musingwire, DNRO Mbarara (below).

Source: Directorate of District Support Coordination and Public Education(NEMA 2018).

The Kyoga catchment areas was represented by participants from 12 District Local Governments from the East and Northern parts of Uganda, together with the NEMA technical persons. These participants included the District Natural Resources Officers (DNROs), the District Environmental Officers (DEOs), District Water officers, District Forest Officers, District Planners. The 12 district local governments were: Mbale DLG, Kibuku DLG, Pallisa DLG, Kaberamaido DLG, Amolatar DLG, Kamuli DLG, Jinja DLG, Apac DLG, Namutumba DLG, Nakasongola DLG, Budaka DLG and Kayunga DLG.



A cross-section of participants, from the Kyoga catchment area.
Source: Directorate of District Support Coordination and Public Education(NEMA 2018).

The integration workshops that brought together planners and natural resource officers were aimed at fostering integration of environment and natural resources management for improved livelihoods, jobs and promote sustainable local revenue generation instruments for DLGs within the catchment areas.

These trainings aroused more interest and innovativeness for funding of activities within the Natural resources departments. Increased optimism and willingness from district planners to advocate for higher local revenue allocations for environmental management was realised.

Some of the key findings from the technical support supervision and inspections include the following;

- (i) There is tremendous progress registered among the local governments towards improved environment management, however there are still outstanding issues such as the increasing degradation of the environment, especially fragile ecosystems like wetlands, riverbanks, lakeshores and forests.
- (ii) Encroachment/degradation of wetlands especially in the Districts of Nakapiripirit and Napak for rice cultivation by mainly people from Teso, Busoga and Bugweri. Deforestation and indiscriminate tree cutting for charcoal production too is rampant in Karamoja Sub-Region. The charcoal finds its way to Mbale, Busia, as well as Somalia and Yemen according to the Kotido ENR officers. There was also charcoal for sex slowly creeping in, whereby women from outside Karamoja dealing in charcoal trade accept sexual affairs with Karimojong men in exchange for charcoal. This posed a big threat in the fight against HIV/AIDS in Uganda as well as social status quo.
- (iii) The rapid degradation was due to low extent of assessment of projects for environmental

- and social impacts, low-levels of compliance with environmental requirements including implementation of environmental mitigation measures for private-led and public-led projects, weak inter-sectoral coordination and inadequate environmental linkages between Local Government planning documents.
- iv) Inadequate funding of environment programmes at the Local Government level- nearly all Local Governments visited had meagre financial allocation to the ENR Department to implement priority environment issues and to purchase equipment like cars and computers. The Departments either lacked or had inadequate means of transport to facilitate DEOs to undertake environment management activities. Most of them had to rely on other departments, which had to prioritize their own activities.
 - (v) Low staffing level in the ENR Department -In all the Local Governments visited only Kotido District Local Government had substantively filled all key positions in the department the rest had less than 40% established staffing structure.
 - (vi) Inadequate technical capacity to manage priority environment issues - This was more evident in the newly created local governments.
 - (vii) Low involvement of the District Natural Resource persons in planning processes thus less or no local revenue allocations and prioritizations for environment management activities.
 - (viii) Low understanding of environmental management activities by district Natural resource persons. Given the cross cutting nature of such activities, this makes most activities integrated with in other departments leaving them with no tangible activities to execute, other than the obvious.
 - (ix) Involvement of planers in environment management activities increases prioritization of ENR management activities in DLGs.

2.2 Technical support to Clean Development Mechanisms (CDM) sites

Technical support services were provided to the 12 Municipal councils of (Arua, Hoima, Masindi, Lira, Soroti, Mbale, Jinja, Mukono, Fort Portal, Kasese, Mbarara and Kabale) that are implementing the Clean Development Mechanisms (CDM) project which aim at reducing greenhouse gas (GHG) emissions by composting organic solid waste of which the manure is used to promote agricultural production and productivity as seen in Table 13.

The technical support services provided included training of the CDM site workers, technical supervision of the operations of the CDM plants and market promotion for the organic manure. However, it should be noted that the CDM project implementation and the expected results are adversely affected by lack/- low prioritization by the urban authorities and thus low capacity (funding, staffing and equipment) for solid waste management; the project suffers from inefficiency, ineffectiveness, inadequate ownership (sustainability deficiency), and poor maintenance and operations. Therefore, Government of Uganda should consider providing conditional grants to urban authorities to enhance their capacity in solid waste management.

Poor solid waste management within Mbarara CDM site and the surroundings characterized by bad odour and spread of waste all over the composting plant. The solid waste was not being managed within the guidelines and standards of Clean Development Mechanisms which focus on

complete composting of the biodegradable of solid waste for the purpose of emission reduction (greenhouse gases-like methane). Non-compliance by Amos Dairy Company as demonstrated by noxious smoke from the milk factory; the team advised the NEMA Mbarara regional office to carry out inspections and guide the company to comply to environmental standards and the conditions of EIA approval.



CDM Kasese wheel loader turning up waste at Kasese CDM plant



NEMA's CDM Coordinator, Dan Kiguli takes a sample of the Manure from Mukono's Municipal Solid Waste Plant. Looking on is the NEMA Board Chairperson, Prof. Tickodri Togboa.



Workers at the Mukono Municipal Waste Compost Plant pack 50kg bags of organic manure. NEMA is supporting 12 municipalities with compost plants generating over 90tonnes of manure.

Table 13: Solid waste management CDM-supported Municipal councils in Uganda

Town	Estimated daily waste generation	Estimated daily total waste collected	Estimated daily uncollected waste	% waste safely collected and disposed-off to the CDM site	Daily compost production	CDM design capacity (70 metric tons per day)	Estimated monthly revenue from compost	Female employed	Male employed	Total employed	
Arua	110	40	70	36	4.5	57	250,000	19	2	21	
Hoima	110	40	70	36	1.75	57	300,000	16	3	19	
Masindi	125	33	92	26	1.75	47	300,000	20	13	33	
Lira	95	35	60	37	1	50	300,000	7	15	22	
Soroti	90	45	45	50	1	64	100,000	7	15	22	
Mbale	150	63	87	42	4	90	400,000	8	8	16	
Jinja	225	54	171	24	2.5	77	350,000	6	11	17	
Mukono	255	45	210	18	1.5	64	400,000	11	17	28	
Fort Portal	125	43	82	34	1.75	61	300,000	16	18	34	
Kasese	105	43	62	41	1.15	61	300,000	10	6	16	
Mbarara	185	60	125	32	1.25	86	250,000	6	8	14	
Kabale	110	58	52	52	4.5	83	250,000	7	16	23	
Total	1,685	559	1,126		27	799	3,500,000	133	132	265	
Average	140	47	93		36	2	67	290,000	11	11	22

Source: Directorate of Environmental Monitoring and Compliance (2018)

The following are the key observations and explanations from the averages in Table 13 above;

- (i) An average of 140 metric tons of solid are generated daily by the 12 municipalities of which 47 metric tons are collected daily (93 metric tons uncollected). This is against the standard efficiency design where each CDM composting plant should collect a minimum of 70 metric tons per day. This information therefore implied that;
- (ii) Only 36% of waste was safely collected for management at the CDM site; 64% is not is safely collected or not properly managed at source or at disposal
- (iii) The CDM sites collect 67% of the 70 metric tons expected on a daily basis and thus the CDM plants are operating below the designed capacity and this explains the current poor solid waste management at the CDM sites (waste scattered all over the windrows and the landfills; poor sanitation and the bad odor experienced at the sites)
- (iv) There is an average distribution of female and male workers (50%- 133 female and 132 male) at the sites although Arua, Masindi, Hoima and Kasese have more female workers. Therefore, this gives a fair gender perspective of the workforce while taking into account the nature and conditions of the work.
- (v) The CDM project generates some local revenue from the compost manure that could be ploughed back to facilitate the operations of the composting plants (for operations and maintenance costs).

2.3 Promote Knowledge on Access and Benefit Sharing (ABS)

Awareness on Access and Benefit Sharing (ABS) was promoted through, identification of benefits of biodiversity conservation and value addition through community training and organic processing of shea butter products. The private sector too has been engaged through Uganda Export Promotion Board (UEPB) to facilitate market promotion and competitiveness in shea butter products while taking into account the value chain. A number of community groups, CBOs and NGOs have emerged in biodiversity based business especially trade in shea butter products, organic agriculture and forestry.

Furthermore, the Authority coordinated the production and dissemination of a manual on post-harvest handling of shea products; developed - frameworks for certification and standardization of shea products such as lip balm, cosmetics and soap among others. The development of a national export strategy for shea products is in the process which will feed into the National Export Development Strategy.

2.4 Research and Policy Decision

A number of studies to promote green growth through environment conservation and climate change management initiatives were carried out in partnership with academic institutions and other MDAs. The studies and interventions included; technical and scientific studies on solid waste in Uganda; support to university students during their post graduate research; training of 25 Environment Officers (6 females and 19 males) on “Sustainable Land Management (SLM), Land Restoration and Linkages with Climate Change”,-undertaken by NEMA in collaboration with the United Nations University - Land Restoration Training (UNU-LRT) Programme and Makerere University.

The training is expected to improve on Uganda’s preparedness for climate change and enhance skill among the district environment officers who manage the natural resources at the local government level. These research studies are intended to provide more understanding on whether the investment in restoration accrued tangible benefits to society.

The studies will provide information on the increased efforts toward restoration activities and enhancing compliance efforts. The social return and investment study was undertaken on the Limoto - Lemwa wetland system. A total of twenty four (24) villages were visited 50% of them in Kibuku District and the rest in Pallisa District. The villages visited included: Buzima, Buseeta III, Buseeta II, Bugwere, Babulanga, Natooto B, Natooto A, Natooto C (central), Midere II, Moru, Kasasira I, Najongoro, Kaperi, Limoto A, Limoto B, Limoto Trading Centre, Akisimi, Kagoli, Kadwalaka, Katome West, Bukirima, Dbembe, Kagoli Central, Katambiri, and Katome Central.

In addition, a study on the proposed collection of tax (Cost of pollution) to subsidize environmentally friendly reusable bags is being undertaken to provide information on how the polluter pays principle functions, by incorporating the cost of pollution (Effect of the ‘Kaveera’

on the environment) on the final price of the product, which is currently at an insignificant cost because the seller is willing to give to the buyer at no extra cost to the buyer.

Two (2) reconnaissance field assessments were undertaken to support proposal development to mobilize resources for research and development in the districts of West Nile, Eastern and Northern Uganda (Adjumani, Koboko, Arua, Moyo, Yumbe, Tororo, Busia, and Gulu) to develop a case for a program on “Land Restoration and Sustainable Environment Management in Refugee Hosting Districts of West Nile, Northern Uganda”, and solid waste management in small towns.

The Authority received students under government internship program in order to promote learning, gain experience and skill development. NEMA had a total of 41 students (16 females and 25 males) and, 2 volunteers. The students were from Kampala University, Makerere University (MUK), Kyambogo University (KYU), Uganda Christian University (UCU), Kabale University, Muteesa I Royal University, Makerere University Business School (MUBS), Uganda Technology and Management University (UTMU), International University of East Africa (IUEA), Ndejje University, St. Lawrence University, Cavendish University, and Law Development Center (LDC). The interns were trained and inducted in the respective directorates, and closely supervised to promote a culture of research and field relevant workforce as per internship strategies under the university education programs.

2.5 Implementation of the NBSAPII National Targets

NEMA undertook an appraisal of the National Biodiversity Strategic Action Plan (NBSAPII). The assessment engaged the key biodiversity champions from the Ministries, Department Agencies (MDAs) in planning, tourism, wildlife, academia, agriculture, education, districts, private sector and NEMA technical staff among others. The appraisal/assessment focused on the progress made in the implementation of the NBSAPII national targets such as capacity building, dissemination of information, data generation and implementation of the NBSAPII targets. Progress made in achieving the National targets include the following;

- (i) **Strategic Target 1 (Strengthening coordination)** - NBSAPII clearly integrated in NDPII sector development plan and selected MDA strategic plans and the National Green Growth Strategy and Roadmap. However, more interventions are required for an effective integration of the NBSAPII into the Sector Development Plans (SDPs) including District Local Governments.
- (ii) **Strategic Target 2 - (Enhance capacity for research, monitoring and information)** Uganda Wildlife Research and Training Institute (UWRTI) established through an Act of Parliament, has promoted and coordinated research in wildlife conservation This effort has been complemented by other research and academic institutions like the Water Resource Institute (WRI) in MWE, National Agricultural Research Organization (NARO), Makerere University and other tertiary institutions. Other achievements to enhance research, monitoring and information are ongoing through MEAs supported projects like the Kidepo Critical

Landscape Conservation Project, Connect Project and Rio Projects that are coordinated by NEMA and implemented by various MDAs.

- (iii) **Strategic Target 7-** Innovative financing solution identified through the Biodiversity Finance Initiative (BIOFIN) project where 9 financing solutions have been identified and aligned to the National Green Growth Strategy and Roadmap as well the other development plans/frameworks.

The following were issues raised during the performance assessment of the NBSAPII;

- a) There is need to identify critical ecosystems at the district level as mandated by the National Environment Act, Cap 153. However, it should be noted that Local Governments (LGs) need technical support in order to identify such fragile ecosystems for strict protection.
- b) Accessibility to reliable data and information on biodiversity is critical and yet there still exists institutional bureaucracy which creates information gaps hence the need to have Memorandum of Understanding (MOUs) to improve on access to data and information from the generating institutions and partners. Uganda Bureau of Statistics (UBOS) and NEMA could spear-head such institutional data and information sharing partnerships.
- c) The role of districts local governments is especially in regard to the enforcement of the environmental legislation and promotion of awareness, education and literacy programs on biodiversity conservation and the associated values.
- d) The role of non-state actors like CSOs and NGOs is very vital since they generate information that can be used by government in policy and decision making. Therefore, it is strongly advised that these partners are always involved in biodiversity conservation in Uganda.

A historical rock in Kalongo, Agago District (NEMA 2018)

KRA 3: STRATEGIC ENVIRONMENT LITERACY, ACCESS TO INFORMATION AND POPULAR PARTICIPATION ENHANCED

Planned targets for FY2017/18

- (i) Undertake environmental literacy and public education programmes
- (ii) Conduct School Environment Education Programmes (SEEPs)
- (iii) Evaluate formal education training programs and undertake training of Trainers
- (iv) Produce Information, Education and Communication (IEC) materials
- (v) Organise World Environment Day (WED) celebrations
- (vi) Develop the 12th National State of Environment Report 2016/17
- (vii) Support District Local Governments information centres
- (viii) Digitization of the NEMA Library

Achieved outputs/outcomes in FY 2017/18

NEMA undertakes public environmental education, awareness and literacy programs to enhance responsiveness, knowledge transfer and change of attitude within the public, communities and other stakeholders in regard to the new and emerging challenges that are related to development and environmental sustainability in Uganda such infrastructure development and industrialization.

3.1 Environmental literacy and public education

3.1.1 Public education and awareness

Environmental education and awareness campaigns on new and emerging environmental issues related to development and environmental sustainability that among others include: wetland degradation and deforestation (which promote biodiversity loss), invasive alien species, oil and gas activities, climate change, pollution, chemicals, electronic waste, municipal waste, medical and health care waste, biotechnology and biosafety. These education and awareness programs were undertaken across the country through print and electronic media like newspapers, magazines, TV and radio.

Sensitization programs were carried out in different districts targeting fragile ecosystems. These included; 4 community meetings on fragile ecosystems in Apac, Bududa, Kaliro and Kasanda Districts involving 142 community leaders (103 and 39 male and female leaders respectively).

Sensitization meetings on better methods and practices of artisanal gold mining were carried out in Mubende and Kayunga districts with focus on environmental/health and social safeguards, targeting 300 artisanal gold miners.

Community sensitization and dialogue meetings on the protection of Lake Kyoga shores and the banks of the upper Nile due to rice growing and other human activities; and community *barazas*

(public meetings and dialogues) for the restoration and protection of Rwizi catchment, Limoto, Lubigi and Kyetinda wetlands. Other stakeholders' awareness meetings included sensitization of local government officials on sound management of chemicals in West Nile and Bunyoro districts under Stockholm Convention on Persistent Organic Pollutants (POPs).

3.1.2 Media outreach

Media excursions were organized in areas of environmental hot spots to publicize the interventions by NEMA in those areas. These included Karuma Hydro Power Plant, Sugar Corporation of Uganda Ltd (SCOUL), River Rwizi Catchment area, Lwera sand mining; the impact of refugee settlements on the environment in Isingiro District, and West Nile region. The main purpose of the media trips was been to facilitate environmental publicity and reporting by the media houses to improve on access to information and education on environmental values and concerns.

Furthermore, a number of media campaigns were undertaken during the financial year to enable the Authority manage or control the high level of environmental degradation in the country and hence the need for country-wide media outreach programs. Table 14 below shows the key radio talk shows organized in the course of FY2017-18.

Table 14: Media outreach programs in FY 2017/18

No.	Region	Radio stations/program	Thematic area/focus
1	Western Uganda-Ankole, Kigezi, and Tooro	Radio west	Month long campaign on the protection of fragile ecosystems (wetlands, River banks, lakeshores, hilly and mountainous areas)
2	Lango region	QFM, Voice of Lango	Protection of Lake Kwania catchment, include Wetlands, Noise Pollution, presidential directives on environment
3	West Nile Region	Radio Paidha	Protection of River Nyagak catchment
4	Bunyoro region	Kitara Fm, Bunyoro Broadcasting Service, and Kings FM	Operationalization of regional offices, awareness on kaveera ban, protection of water catchments, and general environmental management
5	Karamoja region/ Kidepo	Radio stations in Gulu, Lira and Moroto districts.	Protection of Shea butter tree and dealing with human and wildlife conflict
6	Nationwide converge	Media stations across the country - western, central and national stations, and UBC TV	Raising awareness on theme of world environment day Different issues including sand mining in Lwera, Kaveera ban, decentralized environment management, wetlands management and others Talk show appearances
7	Central Uganda	Akaboozi Kubiri, Namirembe Fm, NBS TV.	Media invitations and visits

Source: Public Education and Awareness Department, 2018

Other media engagements included partnerships with New Vision to spearhead an information and education campaign using the Newspaper in Education (NiE) platform where NEMA used the weekly NiE pull-out to disseminate environmental education messages targeting young readers in the range of 7 - 16 years; and NTV Go Green Program which focuses on the new and emerging environmental concerns that need public attention, responsiveness and participation.

The sensitization programs were expected to create positive attitude among communities and the public at large, and to develop a sense of responsiveness to participate effectively in environment management activities and ensure environmental compliance.

3.2 School Environmental Education Programs (SEEPs)

School Environmental Education competitions were conducted in Soroti Municipal schools. The competitions were undertaken in phases between April to July, 2018. The phases included; pre-visit to municipal council and district offices, launching of the competitions and award giving ceremony. Over 1,000 pupils from 32 schools primary schools and 64 teachers participated in the competitions. Each of the 32 schools received five orange tree seedlings in promotion of the ongoing restoration programme and promotion of tree fruit farming.

School Environmental Education competitions is part of the school environment education programs (SEEPs) focused on best practices in environment management at school that include tree planting and landscaping within the school compounds, waste management, wetland protection, environmental health, water, soil and energy conservation practices.

Below are some of the schools which outshined in greening initiatives after the school environment competitions;

Madera boys primary school greening and demarcation of compound walk ways



Kichinjaji Primary School emphasized greening, demarcation of walk ways, talking compound, tree naming and an orchard was established- The school was ranked third in SEEC



Moruapesur Primary School innovation of putting bricks around planted trees for protection against stray animals and Greening at St Francis Primary School.



Award giving ceremony to schools which participated in School Environment Competitions



Award giving ceremony to schools which participated in School Environment Competitions (*contd*)





A Mid-term review meeting for the National Action Plan as part of the follow-up for the implementation of the national ESD strategy and a localized Global Action Plan on ESD was conducted. The meeting was attended by 100 stakeholders and presented an opportunity to share the achievements and challenges in addition to instant feedback and guidance on key ESD concerns in the country.

3.3 Evaluate formal education training programs and training of Trainers (TOTs)

3.3.1. Evaluate formal education training programs

The department of Public Education has previously carried out EE/ESD activities in different parts of Uganda. Cognizant of the importance of monitoring, a follow-up on the implementation of the mainstreaming of environment education in institution programmes was undertaken. The evaluation meetings were undertaken in Nyabyeya forest College, Uganda Martyrs University Nkozi (UMU), Mbarara University of Science and Technology (MUST).

The key findings during the follow up meetings included; Establishment of a department of ESD in UMU-Nkozi, reduction of water and power use in Nyabyeya due to the introduced practices, In general, the training resulted into the inclusion of environment management into academic and non-academic programs; and community-based environment conservation outreach programs such as water and energy conservation and sustainable agricultural practices, a follow-up, was undertaken and experiences were shared with the university staff on the progress and challenges of EE integration into the university programmes. The interaction will also delved into strategies of overcoming the challenges in implementation of EE programmes.

3.3.2. Training of Trainers (TOTs)

Four (4) training of trainer's workshops on the integration of Environmental Education (EE) and Education for Sustainable Development (ESD) into academic and non-academic programmes in educational institutions were conducted in Soroti and Jinja Districts for Primary schools, Kabale University for tertiary- level institutions and Makerere College School for Secondary schools' level. A total of 271 educators were trained in Integration of EE into educational Institutions' academic and non-academic programmes.



Different sessions of the Training on ESD conducted at Kabale University.

3.4 Production of Information, Education and Communication (IEC) materials and publications

Planning, production and dissemination of IEC materials and publications aims at enhancing access to environmental information, education and public participation among the target stakeholders at national, local government and community levels; as well as enhancing NEMA's visibility through publicity of its interventions and results, and as source of information for educational institutions, libraries and resources centres, among others.

Various materials were periodically produced and distributed to target stakeholders at NEMA, at different fora and on request. A wide range of the materials produced were based on different thematic areas; 31650 different types of information educational materials were produced in FY2016/17. The outcome of the section therefore was increased access to and use of NEMA information and/or institutional achievements; access to corporate issues; enhanced knowledge and understanding of World Environment (WED), the WED 2018 theme, the *Kaveera* ban and alternatives; enhanced partnerships and increased public participation; among others; and, a refined and updated information database of educational issues in the ENR sector strengthened. Details of the information materials are highlighted below:

NEMA Corporate materials

2000 copies of NEMA Calendar 2018 portraying key institutional achievements throughout 2017 was produced and distributed to target stakeholders; 350 copies of NEMA Customized Diary 2018 and 1500 copies of the NEMA Christmas card 2017 were produced and distributed to target stakeholders.

NEMA Information, Education, Promotional and Publicity materials

Various types of Promotional bags to support/promote kaveera alternatives were produced and distributed to target stakeholders during WED 2018 celebrations; these included 300 branded woven bags, 3020 branded paper bags; 180 branded sack bags; 1509 Rounded-neck T-shirts; and, 200 Bandanas/cloth caps for school children; 1000 WED 2018 Booklets highlighting the WED proceedings, the speeches, WED Brief, and Mbale DSOER, among others; 4 Sticker-on Forex boards highlighting “Beat Plastic Pollution” theme and “the *kaveera* ban” respectively; 6 Banners, 4 Tear drops, 6 Pop-up stands, 3000 Stickers; and 2000 Fact sheets highlighting the WED 2018 theme, “anti-kavera /plastics messages” and corporate image, respectively. Additional information education materials on different thematic areas produced and distributed to target stakeholders included; 4000 Brochures; 2000 Fact sheets on ‘Environment Managers roles and responsibilities’ and a ‘Case study on fragile ecosystems’; 500 charts and 500 posters on fragile ecosystems; distributed to target stakeholders.

NEMA Quarterly Newsletter

10500 copies of the NEMA Quarterly Newsletter (different quarterly issues) were produced and distributed to target stakeholders highlighting different quarterly institutional achievements; WED 2018; partners' highlights, opinions and related activities.

Monitoring, pre-testing and data collection exercise for IEC materials production processes

Production of tailored IEC materials was preceded by two (2) monitoring, pre-testing and data collection exercises undertaken in Manafwa, Bulambuli, Nebbi and Zombo Districts, respectively, based on different thematic areas namely, fragile ecosystems, community environmental conservation initiatives, formal and non-formal education sectors, hydro power, climate change, new and emerging environmental issues, and hotspots, among others. The pretesting was expected to improve on access to environmental information and education for the overall purposes of; enhanced knowledge and understanding, attitude change, and increased public participation in environment management; enhanced information sharing among the public; enriched information data base for tailored IEC materials and publications such as newsletters, NSOER, NEMA website; and, strengthened partnerships, among others. Consequently, adequate information was gathered and used to produce and disseminate information materials.

As shown in Table 15 below, 33,229 different types of IEC materials and publications were produced and disseminated in FY 2017/18 of which 47.3% were corporate materials; 31.6% for information, education, promotional, and publicity/branded materials; and 21.1% was the publication of NEMA Quarterly Newsletter.

Table 15: NEMA's Public Education and Awareness in FY 2017/18

Public Education and Awareness activities		
Communication Material	Number of Items	Percentage (%)
Information, Education and Communication (IEC) Materials and publications	10,500	31.6
Corporate Materials	15,729	*47.3
NEMA Quarterly Newsletter	7,000	21.1
Total	33,229	100

Source: Directorate of District Support Coordination and Public Education, 2018

Exhibitions

Different exhibitions were mounted at different fora to show-case NEMA's activities and outputs, visibility and increased information access. These included World Environment Day, 5th June 2018 National celebrations held at Mbale, International Day for Biodiversity held at Agago on 22nd May 2018 and World Wetlands Day, 2nd February 2018.

Below is a selection of different IEC materials and publications produced during FY2017/18.

NEMA NEWS
The National Environment Management Authority Newsletter
Vol. 17 No. 1
August 2017

President Museveni calls for conservation of Wetlands, Riverbanks and Lakeshores

NEMA NEWS
The National Environment Management Authority Newsletter
Vol. 17 No. 2
December 2017 - January 2018

President Museveni calls for protection of Hilly and Mountainous Areas

NEMA NEWS
The National Environment Management Authority Newsletter
Vol. 19 No. 1
March - June 2018

WORLD ENVIRONMENT DAY 5TH JUNE 2018 CELEBRATED
Theme: Beat Plastic Pollution

2018 Calendar

Diary 2018

WORLD ENVIRONMENT DAY 5th June 2018 "Beat Plastic Pollution"

PLASTIC POLLUTION FACTS

- Every year the world uses 500 billion plastic bags
- Each year, at least 8 million tonnes of plastic end up in the oceans, the equivalent of full garbage truck every minute.
- In the last decade, we produced more plastic than in the whole last century
- 50 percent of the plastic we use is single-use or disposable
- We buy 1 million plastic bottles every minute
- Plastic makes up 10% of all the waste we generate

For more information about World Environment Day and Plastic Pollution, visit: www.worldenvironmentday.global

BEAT PLASTIC POLLUTION FOR WORLD ENVIRONMENT DAY 2018

NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

PUBLIC NOTICE: KAVEERA BAN

WORLD ENVIRONMENT DAY, 5TH JUNE 2018

World Environment Day, 5th June 2018
Theme: "Beat Plastic Pollution"
Venue: Mbalo Cricket Grounds, Mbalo Municipality, Mbalo District

UGANDA WETLANDS ATLAS
Volume One: Kampala City, Mukono and Wakiso Districts

3.5. Celebration of World Environment Day (WED), 2018

World Environment Day (WED) was celebrated in Mbale District on 5th June 2018 under the theme; “Beat Plastic Pollution”. The colourful occasion was officiated by Hon. Sam Cheptoris, Minister of Water and Environment, and attended by Hon. Dr. Mary Goretti Kitutu, Minister of State for Environment; the French Ambassador, Ms. Stephanie Rivoial; NEMA Board Chairman, Prof. Sandy Stevens Tickodri-Togboa; Mbale District leadership and officials, as well as a cross-section of different guests. Different stakeholders that participated in the celebration included MDAs, local governments, civil society, the private sector, development partners, embassies, schools, the community and the media. The WED activities included public and community awareness on TV, radio and newspapers and other IEC media; environmental restoration (tree planting), cleaning up of Mbale town, speeches, music, drama and dances, exhibitions by NEMA, MDAs, the private sector and civil society. The WED focused on the dangers of producing and using single-use polyethylene carrier bags (*kaveera*) and thus this was a great moment for mass education and awareness on the current use of *kaveera* in Uganda. Below are highlights of the celebrations.

WORLD ENVIRONMENT DAY 5TH JUNE 2018 CELEBRATED

Theme: Beat Plastic Pollution



L-R: Hon. Sam Cheptoris, Minister for Water and Environment addressing guests; Hon. Dr. Mary Goretti Kitutu, Minister of State for Environment, NEMA Board Chair, Prof. Sandy Stevens Tickodri-Togboa, and Dr. Tom Okurut, NEMA's Executive Director, making their remarks during the celebrations.



Hon. Sam Cheptoris, Minister for Water and Environment; and Hon. Dr. Mary Goretti Kitutu, Minister of State for Environment, tour the exhibitions.

A cross-section of dignitaries who graced the function.

French Ambassador, Ms. Stephanie Rivoial visits NEMA Exhibition tent.



Ecobank Uganda Managing Director, Clement Dodoo (left), plants a tree to mark World Environment Day 2018 in Mbale. Ecobank supported the planting of over 10000 in Mbale District. Looking on is NEMA ED, Dr. Tom Okurut.

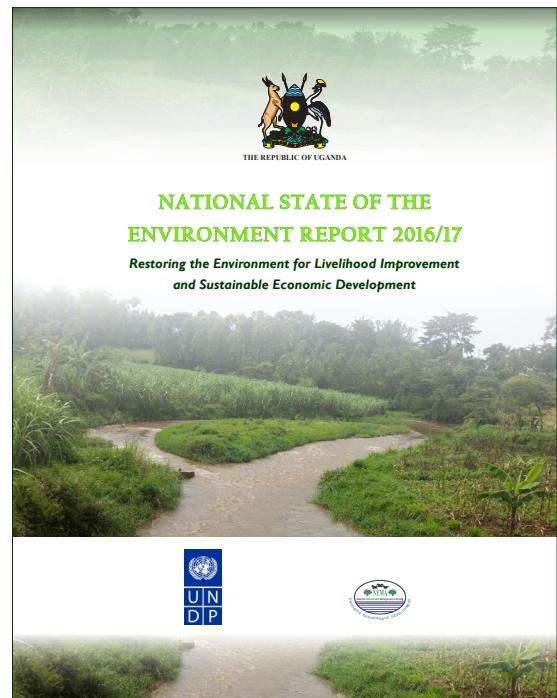
Dr. Daniel Babikwa, Director, District Support and Public Education at NEMA, addresses school children at Nambole during the WED 2018 Caravan activations launch from Kampala to Mbale.

NEMA Staff (in Green) and other partners during a match past in Mbale town as part of the WED 2018 celebrations.

Clean up of Mbale Town was one of the WED celebrations activities.

3.6 Development of the 12th National State of Environment Report 2016/17

The National State of Environment Report (NSOER) 2016/17 has been produced, launched and disseminated. The theme for this NSOER is restoring the environment for livelihood improvement and sustainable economic development. Using the Driving Forces-Pressures-State-Impacts-Response (DPSIR) approach, changes in the environment were assessed, the forces driving these changes, how they have impacted on environment and human livelihoods and the opportunities being harnessed to improve environmental sustainability and human wellbeing through policy responses and other interventions. The content of the NSOER includes; the general overview of the environment sector, the state and trends of the natural resources, progression of environmental policies in Uganda and key scenarios. The production process of the NSOER included both primary (including real time data through remote sensing) and secondary from the sectors and Environment Information Network (EIN) MDAs and other partners. The NSOERs are produced after every two years are commonly used by public policy practitioners, schools and universities, development planners, EIA practitioners and research institutions.



**The National State of Environment Report 2016/17
(NEMA 2018)**

real time data through remote sensing) and secondary from the sectors and Environment Information Network (EIN) MDAs and other partners. The NSOERs are produced after every two years are commonly used by public policy practitioners, schools and universities, development planners, EIA practitioners and research institutions.

3.7 Support District Local Governments Information Centres

Following the environmental information needs assessment of 20 selected district environmental information resource centres in FY 2016/17; the findings revealed that most of resource centres had limited information on the various segments of the environment. Based on these findings, 60 District Local Governments' information centers/libraries were supported with reports of the Environmental Social Impact Assessment studies (ESIAs) undertaken by the Environmental Practitioners, reviewed by the Lead Agencies, NEMA and approved by the Authority, District Development Plans, Districts Environment Action Plans (DEAP), District Statistical Abstracts, Sub-county Development Programme Implementation of the Community Information System, Wetland Inventories, General Information, environmental inspection reports and reading materials on forests, land, water, land degradation, soil erosion, waste and pollution.

These reports provided essential environmental and the related socio-economic information for schools, universities, policy makers and implementers, environmental practitioners and researchers.

More districts were identified for information distribution/dissemination during 2017/18 financial year as compared to 2016/17. Due to this information, the number of districts that received EIA reports for their areas of jurisdiction has increased.



NEMA Librar officials distribute Environmental information to District Offices Resource Centres; L-R Ms Eva Wamala Mutongole, Senior Librarian and Ms Annet Bukirwa, Librarian, respectively.

3.8 Digitization of NEMA Library

NEMA library has been digitized to improve access to environmental information and education to address the new and emerging environmental issues and challenges related to oil and gas, climate change, biodiversity loss, electronic waste among others. Such interventions include the establishment of the E-board and a special section for oil and gas in the library. The readership of NEMA library includes among others MDAs, local governments, EIA practitioners, schools, Universities and research institutions.

KRA 4: INSTITUTIONAL CAPACITY AND MANDATE STRENGTHENED

Planned output targets in FY2017/18

- (i) Undertake recruitment
- (ii) Establishment of NEMA Regional office
- (iii) Revise the Human Resource Manual
- (iv) Undertake monitoring and evaluation
- (v) Internal audit function
- (vi) Undertake development of FY2018/19 Budget and Workplan
- (vii) Undertake high level project and activity monitoring

Achieved outputs for FY 2017/18

In FY2017/18, the Authority strengthened its capacity to realize the institutional mandate through;

4.1 Recruitment

Recruitment of new 35 additional staff (20 male and 15 female) to address staffing gaps and meet the increasing service delivery demands was undertaken. The new staff have contributed to the establishment of regional offices and improved environment management service delivery to clients/stakeholders. Besides, the new staff enhanced the implementation of the administrative and technical reforms in the review of EIA documents and reports and thus contributing to the speedy handling of EIAs and therefore facilitating timely decision making.

4.2 Establishment of Regional offices

In order to bring services closer to the people NEMA established three (3) new regional offices in Lira, Mbale and Mbarara in addition to the existing one in Masindi. DWRM has supported NEMA by providing office space for the new regional offices. The four regional offices have been staffed and equipped to transfer environment management services nearer to the clients' especially local governments, MDAs, EIA practitioners, the developers/investors, regulated communities and the public.

4.3 Revision of the Human Resource Manual

The revision of the Human Resource (HR) Manual was undertaken during FY2017/18 to address the gaps in the previous manual in regard to human resource development (HRD- entry, retention and exit of staff), and emerging issues related to HRD like recruitment, staff welfare, training, retirement, employees' benefits, performance appraisal, among others. The HR Manual

2018 was approved and has been printed and disseminated to staff. This will contribute to more understanding of NEMA's vision by staff and enhance achievement of the Authority's goals and functions.

4.4 Monitoring and Evaluation

NEMA undertakes quarterly and routine monitoring and evaluation of its performance both at national and local government levels as per the approved work plan to review the performances of both internal and external projects. The monitoring and evaluation activities and tasks focus on the assessment of the planned targets and the actual achievements, challenges and recommendations for continuous improvement by the Authority. A total of sixty five (65) districts were monitored and assessed in regard to the planned interventions and achievements by NEMA namely; Buikwe, Kalungu, Kampala, Luweero, Masaka, Mpigi, Mubende, Mukono, Amuria, Alebtong, Bugiri, Bukedea, Busia, Iganga, Jinja, Kaliro, Kamuli, Kapchorwa, Katakwi, Kibuku, Kween, Manafwa, Mbale, Namayingo, Namutumba, Ngora, Paliisa, Soroti, Tororo, Abim, Adjumani, Agago, Amolator, Apac, Arua, Dokolo, Gulu, Kaabong, Kitgum, Lira, Koboko, Kole, Kotido, Maracha, Moyo, Pakwach, Nebbi, Otuoke, Oyam, Yumbe, Zombo, Buhweju, Bushenyi, Hoima, Isingiro, Kabale, Kabarole, Kasere, Kibale, Kiryatongo, Kisoro, Kagadi, Masindi, Mbarara, and Mitooma. Some of the key findings were;

- (i) Most local governments have low ENR management capacity especially in the newly established local governments. The low capacity is characterized by low staffing level with some cases of unskilled personnel, inadequate funding and limited equipment for effective decentralized environment management. It should be noted that the low environment management capacity of ministries, agencies and local governments affect the ability of these entities to sustain the interventions by NEMA.
- (ii) The successful restoration of the degraded fragile ecosystems such as wetlands, riverbanks and lakeshores in some districts like Otuoke, Lira, Amuria Alebtong, Buhweju, Mbarara, Bushenyi (Rwizi wetlands, okole wetlands etc.) has yielded some good results like the regeneration of the ecosystem services like water supply and improved micro climate for the community, and other ecosystem livelihood products like fishing, crafts, building materials and pastures. However, there is a need for more sensitization of the communities to appreciate both the direct and indirect uses of the ecosystem services (tangible and intangible values of the fragile ecosystems).
- (iii) The enforcement efforts by the EPF and NEMA in controlling charcoal and deforestation in Otuoke, Amuria and some areas of Alebtong, has led to reduced charcoal trade by about 80 % along the road side. It has contributed to the conservation of shea tree for both environmental sustainability and livelihood improvement through value addition.
- (iv) The financial support from the government has been recognized and achievements have been attained such as the wetland demarcation in the various DLGs monitored, however the limited

funding has affected activities of these officers. These include, Lira, Amura, Alebtong, Otupe, and Gulu, among others.

- (v) Knowledge management approaches inform of training, exchange visits, technical support and community sensitization of the district local government officers has been appreciated by DLGs such as Alebtong, Otupe and Lira. These approaches have increased knowledge about the new and emerging issues in environment management and sustainable development, improved skills and created a network for sharing information for innovations for improvement.
- (vi) Environmental compliance and enforcement in local governments is a big management challenge as some districts are in hard to reach areas, worsened by low management capacity caused by low funding, limited staffing / skills and inadequate equipment as mentioned earlier. In addition, some developers are non-compliant to the EIA approval conditions coupled with weak implementation of the recommended mitigation measures.
- (vii) The management of solid waste through the CDM Municipal solid waste composting project has had some positive outcomes like safe disposal of waste for healthy and clean towns, production of organic manure for the enhancement of soil productivity for improved agricultural production, and local employment. However, about 42% of the beneficiary municipal councils (Arua, Masindi, Hoima, Lira and Soroti) have failed to prioritize the solid waste composting project as evidenced by the poor operations and maintenance of the composting facilities. These urban councils have failed to provide adequate budgetary support and operations mechanisms to ensure efficiency and effectiveness of the project. Comparatively about 48% of the beneficiary urban authorities (Mbale, Jinja, Mukono, Fort Portal, Kasese, Mbarara and Kabale) have demonstrated some fair support to the waste management project. Notably, waste management is a decentralized function as per the National Environment Act and Local Governments Act and hence urban authorities are obliged to plan and budget for it to ensure clean and healthy towns.
- (viii) Some development projects in local governments especially the infrastructure development projects that are initiated by the Central Government like roads do comply with the conditions of the EIA approval conditions and the implementation of the recommended mitigation measures. It is common to find post project degraded fragile ecosystems due to civil works such as quarry sites and borrow pits that are not restored, settlement camps not decommissioned and most importantly not restored. These problems are not easily manageable by the low-capacity local governments and thus the respective ministries and agencies should take responsibility in ensuring that the infrastructure or other development projects are compliant with minimum or negligible negative environmental impacts; they are expected to support local governments in post project environmental restoration if not done by the contractors. No contractor should get the final payment before the respective District Environment Officer has issued written consent (certificate of compliance) on the project completion and the status of its environmental impacts.

- (ix) Apathy and knowledge gaps exist within local governments and the communities where environment management is still considered as solely the responsibility of NEMA or the central government. Therefore continuous environmental education, awareness and literacy programs through stakeholders' meetings, community barazas for both governance/management accountability by the government entities and realization of the role and responsibilities of the community, radio and TV Talk shows are required to attain attitude change for co-responsibility and responsiveness for more effective environmental stewardship at all levels.

4.5 Internal Audit function

During the FY 2017/18, Internal Audit Department (IAD) carried out quarterly audit and a review of a number systems and processes. The Department produced quarterly internal audit reports and submitted to Board of Directors of NEMA and Office of the Internal Auditor General, Ministry of Finance, Planning and Economic Development.

The following are the key findings of system and process internal audit tasks that IAD carried out and the proposed recommendations;

- (i) Management of wetlands: A number of wetlands within and outside Kampala were being degraded by way of erecting permanent structures, cultivation and discharge of effluent, and dumping of marram. There is need to step up enforcement action to ensure that wetlands are protected.
- (ii) Restoration of fragile ecosystems: In response to degradation activities, NEMA undertook efforts to protect and restore degraded fragile ecosystems in the country. The restoration activities were undertaken mainly in the Lake Kyoga Basin, Lake Nakivale, and River Rwizi catchment. The restored areas are regenerating, but there is need for continuous monitoring and enforcement to prevent re-encroachment.
- (iii) Solid Waste Composting plants under the Clean Development Mechanism: NEMA, with the support from World Bank, established solid waste composting plants in twelve municipal councils of Kabale, Mbarara, Kasese, Fort Portal, Hoima, Masindi, Arua, Lira, Soroti, Mbale, Jinja and Mukono. The aim was to reduce emission of greenhouse gases which affect the ozone layer and to convert solid waste into manure. Internal Audit carried out a review of the functionality of the sites and they were found operational. However, most of them were not operating in line with the terms and obligations spelt out in the memoranda of understanding (MoUs) signed between respective local governments/Municipal Councils and NEMA. There is need to enforce the terms in the MoUs to ensure that the Municipal Councils honor their obligations.
- (iv) Procurement function: There were improvements noted. However, there were delays in carrying out planned procurements, which could potentially result in low absorption of funds and performance of the organization. There is need to ensure that planned procurements are

undertaken on time.

- (v) Accountability of activity advances: The review was intended to ensure that all funds advanced for activities were accounted for, and there was value for money. There was improvement in accountability of funds as no major issues were identified.
- (vi) Fixed assets management: Improvement in the management of assets was noted. However, some of the motor vehicles were not registered as NEMA's property. There is need to ensure that all assets which belong to the institution are registered in its names.
- (vii) Legal function: Improvement in the functionality of the Legal department was noted. However, there is need to put in place a policy and procedural manual to guide its operations.
- (viii) Information Communication Technology (ICT): There is need to finalize and operationalize the ICT policy of the organization to ensure an efficient and effective ICT system.
- (ix) Cash and Bank reconciliations: There was improvement noted. No major issues were identified during the review.
- (x) Payroll management: Internal controls payroll preparation and management were found to be adequate and effective.
- (xi) Fuel and Motor vehicle usage: There was improved management of motor vehicles and fuel. However, there is need to review the current transport and vehicle policy to address the new and emerging fleet and logistics management issues such as safety and security of the fleet and users.
- (xii) Final accounts for the FY 2016/17: Internal Audit carried out a review of the final accounts for the FY 216/17 before their submission to the Auditor General for the annual statutory audit. No major issues were identified and the organization got unqualified audit report from the Office of the Auditor General.

4.6 Development of the FY2018/19 Work plan and Budget

NEMA undertook the development of the FY2018/19 work plan and budget with guidance from the Ministry of Finance Planning and Economic Development (MoFPED) to align the Authority's strategic directions, objectives and activities (strategic plan) in the FY2018/19 with the presidential directives, emerging environmental concerns, government priorities and the off-budget projects/interventions. Besides, NEMA participated in regional consultative meetings for the budget framework paper (BFP) for local governments (local governments budget consultative meetings) in order to ensure integration of ENR management in the BFPs of ministries, agencies and local governments (MALGs).

The work plan and budget development process of the FY2018/19 highlighted the following due;

- (i) The low budget funding to DLGs with a funding gap of Ush14.5Billion only.
- (ii) The need for NEMA to improve DLG support through opening up of regional offices.
- (iii) The need to increase funding earmarked for management of e-waste.
- (iv) To prioritise oil and gas as an area with potential impacts on the environment if not well managed.
- (v) A funding gap of UShs.14.5Bn to support the decentralised environment management function at districts and municipal levels.

4.7 High level project and activity monitoring

NEMA Management and the Board of Directors undertook a field visit to central Uganda and western Uganda to assess the environmental conditions within the degraded fragile ecosystems and the ongoing efforts to manage the state of environment through the efforts of NEMA, District Local Governments and other partners.

In central Uganda, the team checked on the state environment within Lwera sand mines in Mpigi and Kalungu districts, and reviewed the ongoing efforts by NEMA Management in addressing the environmental concerns. While in western Uganda, the team assessed the environmental conditions within River Rwizi with focus on the impacts of human activities especially farming and urban development in the districts of Mbarara, Buhweju and Isingiro.

Notably, the greatest challenges in the wetlands along River Rwizi are; demand for agricultural land, especially livestock farming and crop cultivation; siltation due to erosion and hilltop degradation. The field visit recommended the following actions to be undertake by the Authority; enforcement of environmental law to ensure compliance of human activities within Rwizi catchment, promotion of other tree species with socio-economic values and to reduce the current planting of eucalyptus trees in the region.

Engagement with Directorate of Water Resource Management (DWRM) to study the hydrology of the catchment for better water resources planning and management in the catchment and provision of legal support to the districts such as Buhweju and Isingiro that are facing litigation in court over environmental management; a service that NEMA is already providing in the court of law.



NEMA Board Members and NEMA Deputy ED, Ms Christine Akello Echookit (*extreme left*) held a courtesy call on the Mbarara Municipality Mayor, Mr. Mugabe Robert, during their monitoring and supervision visit to Mbarara District.

The Authority also undertook a high level monitoring of the refugee settlement and protection areas in West Nile districts of Yumbe, Moyo and Adjumani with the focus on the impacts of refugee settlements on environmental resources and livelihoods (food, water and energy) and interventions by Government and partners. The following is the summary of findings;

- (i) Deforestation is the main risk confronting environment management in the refugee settlements .Encroachments, over exploitation of forest products – clearing of trees for household wood fuel, settlement and poles for construction materials by refugees and host communities, a devastating impact on environment as the bio physical environment gets depleted.
- (ii) Conflict over scarce resources is yet another anticipated risk. The high population growth rate of 5.5% among nationals in the district compared to national population growth rate of 3.4%, coupled with the refugee population will most likely strain the already stretched natural resources base. Lastly, the main commonality between refugees and host communities is the

high level of poverty, resource constraints and socio-economic vulnerability.

- (iii) There is evidence of climate related risks usually characterized by prolonged dry spells, unpredicted rainfall or heavy rains which result into flooding of rivers and streams. This too has significant potential negative impacts on the environment/natural resources and human livelihoods.
- (iv) The massive influx of refugees has potential pressure on the existing wetlands especially in the refugee settlement areas of BidiBidi in Romogi Sub County. Wetlands such as Tritri, Leju, Ibizi and Poporo will continue to experience reduced vegetation cover and little water for production and domestic use notwithstanding the degradation of other ecosystem values and services which are essential for both environmental integrity (sustainability) and human survival.
- (v) As the land degradation in the settlements increases due to soil erosion caused by human population pressure and other factors, the soil fertility gets deteriorated and thus rendering the soil unproductive for both the host community and the refugees. This situation escalates the food insecurity and poverty situations. Besides, human population pressure on land and soil unproductivity breed conflicts between the host community and the refugees and among the former.
- (vi) Poor waste management is another threat to health and sanitation of the communities in the refugee settlement areas. The situation is worsened by lack of proper waste disposal facilities for both human and domestic wastes, and poor disposal of non-biodegradable wastes such as plastic materials, bottles and heavy metals.

The recommended strategies are;

- a) All partners in refugee protection services should involve both District and Lower Local Governments at all levels of interventions (planning/designing, implementation, monitoring, evaluation and review).
- b) Institutional coordination mechanisms at both national and local government levels should be maintained and sustained while involving all the key stakeholders including NEMA to ensure environmental integrity and sustainability in the refugee settlement areas.
- c) Office of the Prime Minister (OPM) should acquire land, gazette and carry out physical planning and strategic environmental impact assessment specifically for refugee protection services.
- d) Environmental concerns and values should be integrated in all refugee protection projects with full participation of all the key stakeholders.

- e) Office of the Prime Minister (OPM) should facilitate the environmental audit of all current refugee protection projects to ensure environmental integrity and sustainability, while the district local governments should carry out environmental screening to inform the audit process.
- f) NEMA and District Local Governments should carry out comprehensive environmental compliance inspections in all the large refugee settlement areas in the country in order to enhance enforcement and ensure clean and healthy environment within the refugee communities.
- g) District Local Governments should establish tree planting targets like number of trees per households, ha per villages and number of species to ensure massive tree planting in both refugee and host settlement areas.
- h) There is need for an integrated model for environment, water resources and energy conservation and utilization within the refugee and host communities to ensure sustainable use of these resources.
- i) OPM and Local Governments should co-operate and facilitate massive sensitization of both the refugee and host population on environmental concerns and values within the two communities.

KRA 5: NATIONAL, REGIONAL AND INTERNATIONAL PARTNERSHIPS FOR SUSTAINABLE DEVELOPMENT STRENGTHENED

Planned output targets in FY2017/18

- (i) Participation in Multi-lateral Environmental Agreements (MEAs) processes, and other regional and global obligations and fora;
- (ii) MEAs project coordination and implementation functions enhanced; and,
- (iii) Civil society and private sector participation in ENR management enhanced.

Achieved outputs/outcomes in FY 2017/18

5.1 Participation of NEMA in MEAs processes

NEMA has been participating in a number of regional and international fora on environment and sustainable development, multilateral environmental agreements (MEAs) and other bilateral/multilateral engagements. The participation in these MEAs and other partnerships has attracted a number of projects that have provided resources (skills, finance and equipment) for environment management in Uganda. These projects that are coordinated by NEMA are highlighted below.

5.2 MEAs project coordination and implementation

5.2.1 Kidepo Critical Landscape Project (KCL) - GEF/UNDP/GoU

This project focuses on wildlife conservation in Kidepo National Park and protection of shea butter trees outside the protected areas in Kotido, Kaboong, Kitgum, Agago, Otuoke and Abim districts. The objective of the project is to protect the biodiversity of the Kidepo Critical Landscape (KCL) in North Eastern Uganda from existing and emerging threats. The project expected outcomes are strengthening management effectiveness of KCL protected area cluster and integration of protected area management in the wider landscape.

The biodiversity and ecosystem values of KCL have been conserved and provision of sustainable benefit flows at local, national and global levels through enhanced operational capacity and functional landscape planning approaches.

The main outputs achieved from the project include the following:

- (i) Seventy (70) representatives of 14 women groups were trained on diversification and standardization of shea butter tree products;

- (ii) A draft National Export Strategy for shea butter and three draft standards for shea products produced;
- (iii) Development and piloting of a landscape wide management plan for biodiversity;
- (iv) Eighty (80) representatives of women groups in Agago and Otupe districts were trained in value addition in shea butter products;
- (v) A draft national shea butter strategy was developed;
- (vi) A draft framework for certification of shea products was developed;
- (vii) Ordinances developed to address the legislative gaps and enforcement issues;
- (viii) An inter-district coordination forum on biodiversity conservation in Kidepo Critical Landscape was developed; and,
- (ix) Market information centers were constructed in Otupe, Agago and Kaabong to promote value addition.

This project has improved on the wildlife conservation and shea butter tree protection efforts by UWA and NEMA, as local governments and the communities have been empowered to participate in the conservation activities through micro projects like bee keeping, chili growing, value addition and business in shea butter products. The project beneficiaries have become ambassadors and champions for wildlife and forest conservation within their communities. The project has also promoted partnerships among NEMA, UWA and NFA, the private sector, civil society, local governments, and the communities which possibly will ensure ownership and sustainability of the project results.

5.2.2 Biodiversity Financing Initiative (BIOFIN)-EU, Germany, Norway, Switzerland, UNDP & GoU

BIOFIN is a global partnership that aims at enabling governments to build a sound business case for increased investment in the conservation, sustainable use and equitable sharing of benefits of ecosystems and biodiversity, with a particular focus on identifying and filling financial needs at the national level. It is further meant to provide concrete guidance to countries using the BIOFIN workbook and related products on how to assess existing biodiversity-related expenditures, gauge costs for implementing their National Biodiversity Strategy Action Plans (NBSAPs), and understand how to mobilize the financial resources required to fully implement their revised NBSAPs. By doing so, countries are expected to improve biodiversity and sectoral policies, and better align their national expenditures with their biodiversity and development goals.

The BIOFIN project feeds into the reviewed and updated National Biodiversity Strategy and Action Plan (NBSAPII), under the coordination of NEMA. The key outcome of the project will be the development of a National Biodiversity Finance Plan for implementing the NBSAPII.

The key outputs of this project in FY2017/18 include:

- (i) The development and implementation of instruments for sustainable local revenue generation from biodiversity and ecosystem services through training of technical staff in Mbarara, Bushenyi, Sheema, Mitooma, Rakai, Kiruhuru, Isingiro, Kasese, Ibanda, Buhweju and Kamwenge districts;
- (ii) Enhancing financial sustainability in the management of Central Forest Reserves (CFRs);
- (iii) Review of the finance needs assessment report and national biodiversity finance plan and engagements of different stakeholders especially the MDAs through the Technical Steering Committees (TSC); and,
- (iv) This project has facilitated local governments and MDAs in identifying financing opportunities from biodiversity, which revenue is expected to further the support to biodiversity conservation. Besides, the project has resulted into negotiation with African Development Bank (ADB) to provide financing opportunities for biodiversity through the private sector.

5.2.3 Strengthening Institutional Capacity for Effective Implementation of Rio Conventions in Uganda” focuses mainly on CBD, UNFCCC and UNCCD (RIO project)-GEF/UNDP/GoU

This is a new project whose objective is to strengthen institutional capacity for effective implementation of the Rio Conventions in Uganda, with the following expected outcomes.

- (i) Strengthened and elaborate national institutional framework for managing natural resources and the environment;
- (ii) Technical and Management staff sufficiently trained in monitoring and data analysis, and linkage to decision-making processes; and
- (iii) An improved national system to manage (collect, store, and access) data and information that supports monitoring and implementation of the Rio Conventions.

The outputs of the project in the FY2017/18 include:

- a) Establishment of a Project Implementation Unit (PIU) and the Expert Working Groups (EWGs);
- b) An awareness program was undertaken regarding the Rio Conventions and the EWG, and the beneficiary districts were Wakiso, Jinja, Kayunga, Mukono and Buikwe; and,

- c) Advocate Coalition for Environment and Development (ACODE) and Nature Uganda are the civil society organizations that have partnered with NEMA to implement this project.

5.2.4 Mainstreaming Biodiversity into the Heart of Government Decision Making (CONNECT) project- UNEP/GoU

The objective of the project is to ensure that biodiversity is taken into account in decision making across government sectors by improving development decision makers' access to and use of biodiversity information, and embedding biodiversity information within national development decision making processes. The Connect project is expected to help governments achieve sustainable development by bringing biodiversity and ecosystem services to the heart of government decision making using actionable biodiversity and ecosystem services information.

The key outputs of the project in the FY2017/18 include:

- (i) Production of draft reports on the Political Economy Analysis (PEA) of biodiversity conservation in Uganda, and the National Biodiversity Information Landscape (NBIL);
- (ii) The development of a National Project Communication Strategy to guide project implementation. This is under review by the key stakeholders and the global project team; and,
- (iii) This project has already contributed to institutional networking on biodiversity conservation through the established Expert Working Groups (EWGs) which have contributed content for the production of PEA and NBIL draft reports.

5.2.5 Clean Development Mechanism (CDM)

The general concept of the project is to support the composting operations that convert municipal solid waste into marketable manure. The project is also intended to strengthen the collection and transportation of municipal solid waste to ensure clean and healthy towns. Specifically the project aims at:

- (i) Reducing emission of greenhouse gases to the atmosphere which would contribute to global warming and climate change;
- (ii) Improving solid waste management in towns for clean and healthy towns; and,
- (iii) Controlling and protecting water sources from pollution (ground water pollution).

This project is implemented in 12 urban authorities of Kabale, Mbarara, Kasese, Fort Portal, Hoima, Masindi, Arua, Lira, Soroti, Mbale, Jinja and Mukono. The main outputs in the FY2017/18 include:

- a) Real time collection of waste;
- b) Training of the project teams on composting activities;
- c) Quarterly monitoring and site supervision by NEMA where valuable data and information on municipal solid waste was collected;
- d) On average 22 men and women are employed per solid waste composting site as sorters and other workers; and,
- e) Production of manure through composting of organic waste.

This project has built the capacity of the beneficiary urban authorities in terms of provision of waste management equipment, composting facilities and training. Besides that, the organic manure from the composting of solid waste has contributed to agricultural productivity. However, the expected results and sustainability of the project is highly affected by the inadequate budgetary support from the urban authorities.

5.2.6 Strengthening the management of Oil and Gas (SMOGP) project- Norway/GoU

This project aims at building the institutional and legal capacity of NEMA and the respective MALGs to effectively manage the environmental aspects of oil and gas. The key interventions of the project has been knowledge transfer (training, experience sharing and lesson learning from Norway), legislative review (review of the National Environment Act and the related regulations), and setting up a system which includes capacity needs assessment, development of environmental monitoring and enforcement tools like guidelines, database, and management frameworks.

The key outputs of the project include:

- (i) Capacity needs assessment of MDAs and local governments involved in oil and gas activities was done;
- (ii) Development of Strategic Environment Assessment;
- (iii) Development and implementation of the Albertine Graben oil and gas monitoring plan;
- (iv) Training of NEMA, MDA and Local Government Staff in the basics of oil and gas management in collaboration with UNEP;
- (v) Revision of the National Environment Act Cap153 and the related regulations on EIAs, Audit, waste, effluents, air quality, noise and vibrations;
- (vi) Production of draft National Oil Spill Contingency Plan; and,
- (vii) Electronic web-based Database for EIA and Permit reviews, environmental inspections and audits.

This project has greatly contributed to NEMA, MDAs and local governments in terms of institutional capacity to manage the environmental aspects of oil and gas, legislative review, skilling and provision of access to information frameworks for planning and reporting, which have contributed to the enhancement of environmental compliance and enforcement capacity of the beneficiary MALGs.



View of part of the Kingfisher developments in Buhuuka-Kyangwari, Hoima District. In the foreground is Kingfisher 2/4 Oil pad; in the background is the Rift valley escarpment, and the newly constructed Kingfisher Escarpment Access Road. (NEMA 2018)

5.2.7 Mercury Initial Assessments Project (Uganda)-Minamata Convention

The main objective of this project is the development of National Action Plans to reduce the use of mercury and mercury compounds, and emissions and releases to the environment from artisanal and small-scale gold mining and processing facilitated by the use of scientific and technical knowledge and tools by national stakeholders in participating countries. The Project is under the Minamata Convention on Mercury whose objective is to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.

The key results from the project in the FY2017/18 were;

- (i) Forty nine (49) participants from sector teams were trained to undertake baseline estimates of mercury use and practices at artisanal scale gold mining (ASGM) sites;
- (ii) Multi-sectoral reconnaissance visits were carried out at 80 ASGM sites in the districts of Kaabong, Moroto, Nakapiripirit, Bukwo, Amudat, Busia, Namayingo, Bugiri, Buhweju, Kisoro, Bushenyi, Kyegegwa, and Mubende.
- (iii) The national Minamata Initial Assessments Report was published by NEMA. The report detailed the national mercury emissions and release and source categories.
- (iv) Awareness materials that have information deterring worst practices in artisanal and small scale gold mining including use of other mercury added products with emphasis on phasing dental amalgam were produced and disseminated.

5.2.8 Vienna Convention/ Montreal Protocol – Ozone project

This project aims at phasing out the use of ozone depleting substances and products in Uganda. The key project interventions have been training, monitoring, enforcement, and support to academic institutions and the private sector to develop technology and pilot ozone-friendly products like freezers and best practices in Uganda.

Generally the key results of this project are: Ozone-depleting substances (refrigerants) in the refrigeration and air-conditioning sector, especially Chlorofluorocarbons (CFCs) and Methyl bromide have been replaced with ozone-friendly substances (refrigerants), mainly Hydrochlorofluorocarbons (HCFCs), Halogen-free refrigerants like Ammonia and Iso-Butane, and Hydrofluorocarbons (HFCs). These three categories of ozone-friendly substances are now increasingly becoming the common choice in Uganda. Local capacity has been built through training, and local investors have emerged like Gayaza Electronics and Services Company that has set up a plant for ozone friendly fridges and freezers.

The key results of the project in the FY2017/18 include:

- (i) Ratification of the Kigali Amendment to the Montreal Protocol by Government of Uganda and enforcement thereafter;
- (ii) Training of 30 customs and police officers to enable them improve skills in identifying Ozone Depleting Substances and Products (ODSs) and ODS dependent equipment;
- (iii) Reduction in HCFCs imported into and consumed in Uganda in accordance with the provisions/guidance in the HPMP document;

- (iv) Efficient operation of the national HCFC quota system;
- (v) Well enforced policy framework for compliance with the Montreal Protocol;
- (vi) Effective monitoring of HPMP activities, focusing on different aspects including identifying ODSs and ODS dependent equipment;
- (vii) Creation of public awareness on ODSs;
- (viii) Review of the Ozone Depleting Substances and Products (ODS) to include HFCs, new schedules, quota system for HCFCs and HFCs, new borders for customs officers, strict penalties, among others; and,
- (ix) Development of draft Regulation on ODSs. It is important to note that the ratification of the Kigali Amendment will increase Uganda's participation in the Convention and enable the country access additional global funding under the Convention.

5.2.9 Inclusive Green Growth and Poverty Reduction (IGGPR) Project- UNDP/GoU

The objective of IGGPR intervention is to accelerate and sustain progress towards eradication of poverty and inequality. This is expected to be achieved through building and expanding capacities in natural resource management, particularly among women and the younger generations, in a way that promotes entrepreneurship, livelihood and job creation.

The key outputs from the project in the FY2017/18 include;

- (i) Eighty four (84) stakeholders were trained on sustainable ENR management for livelihood and job creation in western Uganda with focus on ecosystem services. The results of this training were: key fragile ecosystems within local governments identified as potential sources of local revenue for sustainable ENR management activities; increased awareness for District Planners on sustainable ENR management for improved local revenue for ENR management in Local Governments; and justification for increased funding and local revenue allocation for ENR management activities agreed upon for implementation by District Local Governments.
- (ii) National guidelines for sand mining developed and the key results of this undertaking are; enhanced technical capacity of the participating lead agencies in the management of sand mining (management of the challenges related to sand mining); provision of guidance in the review of the permitting and other approval processes/procedures like EIA and site restoration.
- (iii) Three hundred thirty five (335) Local Environment Committee members (LECs) were trained and LECs operationalized in the two districts of Otuke and Mbarara. The training focused on

decentralized environment management and the roles/responsibilities of Local Environment Committees.

- (iv) Support to the scaling of the restoration project that was piloted by NEMA and a local NGO in Ntungamo district with support from UNEP. In this regard IGGPR project has supported tree planting to restore the degraded hill top in Kasenyi village, Buhama parish, Itojo Sub county, Ntungamo District.

5.2.10 Stockholm Convention on Persistent Organic Pollutants

Stockholm Convention on Persistent Organic Pollutants (POPs) is a global treaty adopted on 22 May 2001 and it entered into force on 17 May 2004. Uganda acceded to the Stockholm Convention on 20 July 2004. The Stockholm Convention on Persistent Organic pollutants (POPs) seeks to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically and bio-accumulate in the fatty tissue of humans and wildlife.

An outreach documentary was developed after the closure of the 5 year regional project “Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) Programme. The documentary highlighted the key findings and lessons learnt from the implementing countries. The Documentary can be accessed on the following Websites: <https://youtu.be/p3QtSK4nQhw>, <https://youtu.be/16-tYJOH0o8-> and <https://www.youtube.com/watch?v=1MdVN5iPRr8>.

5.3 Participation of the private sector and civil society

5.3.1The private sector

The involvement of the private sector in the activities of NEMA has been in the following categories of interventions:

Compliance assistance; where NEMA supports the companies (industrial facilities and projects) through regular inspections , audits and advice to develop self-regulatory policies, systems, procedures and technologies for effective environmental compliance and enforcement. Some of these entities include the oil and gas companies and their related auxiliary partners, SCOUL, Tororo and Hima cement industries, Uganda and Nile Breweries, Britania food processing, and Uganda Batteries Ltd. These companies have developed self-regulatory systems which include effluent treatment plants, establishment of new and modern plants, housekeeping policies and procedures, among others.

Environmental and social impact (ESI) studies and audits carried out by EIA practitioners who are private individuals or companies registered as consultants to carry out such studies and

audits. These entities carry out environment impact assessment studies and audits on behalf of developers/investors, and submit to NEMA for review and decision making. In the FY 2017/18 there were 285 registered EIA practitioners (273 individuals and 12 partnerships) working with NEMA as EIA and environmental audit consultants.

Corporate and social responsibilities (CSRs); where some companies invest in environmental and socio-economic development like tree planting, education, health, water and sanitation projects as take back to community strategies. These companies usually support NEMA, Local Governments and community during the World Environment Day (WED) celebrations and other initiatives. They include Nile Breweries, the oil and gas companies (Total E&P and CNOOC), Eskom, Ecobank, Eaton Towers, Britania Foods Ltd, Rwenzori Beverages, Hima Cement, among others.

Environmental resources (biodiversity)-based enterprises; these are the business entities which rely on natural resources like biodiversity for their businesses and work in partnership with NEMA either through projects or memoranda of understanding. Examples of such companies include Guru Nanak and Blessed Organic which are involved in value addition and marketing of shea butter products under the Kidepo Critical Landscape (KCL) conservation project.

Consultancy services with NEMA; NEMA engaged a number of consultants for scientific and technical studies or research to inform decision making and policy planning in ENR management. This was common in biodiversity conservation and sound chemical management such as the BIOFIN studies, studies within CBD supported projects, Expert Working Groups within projects, studies on Persistent Organic Pollutants (POPs) under the Stockholm Convention, Minamata Convention (Phasing out of mercury), among others. These consultancies provide new information for innovations and build local capacity within NEMA and MDAs.

5.3.2 The Civil Society

Non-governmental organizations (NGOs) work with NEMA at both national and local government levels. The national level NGOs are both national and international in their mandates, and usually focus on policy advocacy and lobbying, public education and awareness programs, research in science and policies, project management and resource mobilization. These NGOs support NEMA during WED celebrations and other initiatives. Some of them include WWF, WCS, Advocate Coalition for Environment and Development (ACODE), Environmental Alert, CARITAS Uganda and EMLI Bwaise Facility, among others. The district local government level NGOs are mainly national in mandate terms and mainly focus on public education and awareness, resource mobilization and project implementation. Such NGOs include SORUDA, Gwokokene and FAPAD among others that are involved in the implementation of KCL project in partnership with NEMA, District Local Governments and the communities.

NEMA supported EMLI Bwaise Facility, a Non-Government Organization (NGO) that facilitates environmental governance and chemical management in Uganda to organize the following activities:

- (i) A strategic engagement with ENR Civil Society Organization (CSO) Network on scaling up Non-state actors involvement in environment management. The engagement explored ways of engaging the Network members in the current legislative reforms like the Climate Change Bill, the National Biosafety Bill and the National Environment Bill. It also contributed to the review of the Terms of Reference (ToRs) for the establishment of the National Environment Platform.
- (ii) A dialogue on Sound Management of Chemicals in Uganda: The dialogue was attended by 61 participants (19 females and 42 male) from government, civil society, academia, private sector and media. The dialogue highlighted that chemicals and chemical waste management in Uganda was still a big challenge across the entire lifecycle of chemicals-production (manufacturing), procurement (importation), storage, transportation, distribution (repackaging), utilization (use) and disposal. The dialogue recommended as follows:
 - (iii) Implementation of a life cycle approach to management of chemicals and use of alternatives such as hydrocarbons to replace Chlorofluorocarbons (CFCs);
 - (iv) Development of guidelines on chemicals safety;
 - (v) open access to information on internationally banned chemicals; and,
 - (vi) Impose a manufacturer levy to spur safe and effective disposal of chemical containers (similar to the drum Muster program of Australia)
 - (vii) Radio talk shows on chemicals and waste management which helped inform the public of the challenges in chemicals and waste management, dangers of poor management of the non-degradable waste such as plastic bottles and polythene bags. The public was also informed of the consequences of open burning of plastics.

The achievements from the interventions were;

- a) Provision of information on the ongoing legislative reforms in the ENR sub sector for the ENR-CSO network to participate in the processes;
- b) Enhanced access to information on chemicals and chemical management; knowledge and capacity of 113 people was enhanced on environmental governance and chemicals management;
- c) Initiated science policy interface in environment and natural resources management as scientists interfaced with policy makers and legislators during the dialogue and other engagements;
- d) Provided a window for private sector engagement in environment management especially in chemical and waste management as demonstrated by the participation of LUUKA Plastics and Bukoola Chemicals; and,

- e) Holistic approach to national platform on environment was agreed and a unified approach to multi-stakeholder fora/conferences on the environment.

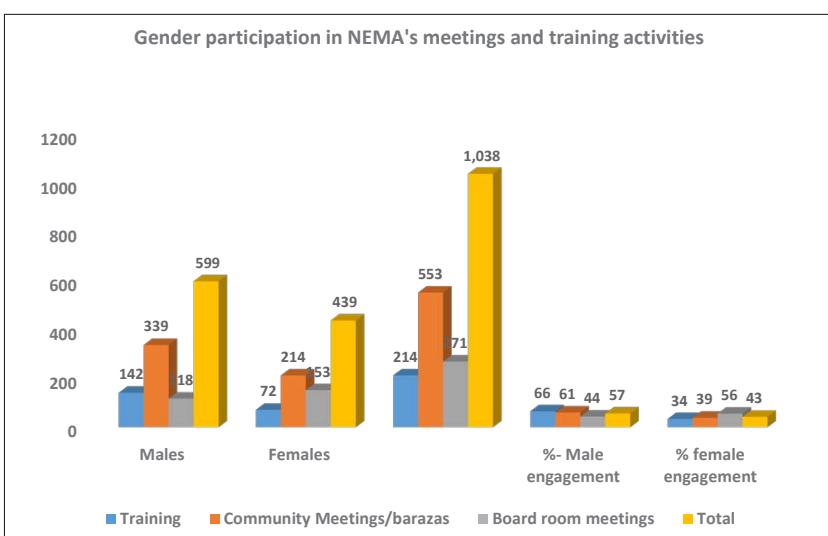
5.4 Gender perspectives in NEMA's interventions

It is important to note that environmental degradation whether due to human influences (development projects and other human activities) or naturally induced, have negative impacts on the population and the most vulnerable segments of the society are women, children, the physically handicapped people, the aged and the sick.

Most negative impacts of environmental degradation relate to access to and control of natural resources like land, water, food and energy resources which and any access or control crisis in these resources affects mostly women and children who are more exposed and thus with higher vulnerability index. This is one of the main rationale for NEMA's investments in the restoration and protection of the fragile ecosystems (to provide and sustain both environmental services and livelihood assets like food, water, energy and household income security) and the justification for EIA approval conditions and mitigation measures to ensure environmental and social safeguards for workers and the community within the project areas.

NEMA undertook inclusive engagement of both males and females through public education/ awareness and training programs that build the capacity of both gender in responsiveness and participation in environment management activities for both conservation and livelihood. This can be seen in Graph 3 below, which shows that out of the total number of people who participated in the key meetings and training programs (workshops) organized by NEMA in FY2017/18, 43% were female participants. In Board room meetings there were more female participants (56%) implying that more women were involved in decision-making meetings.

Graph 3: Gender participation at NEMA

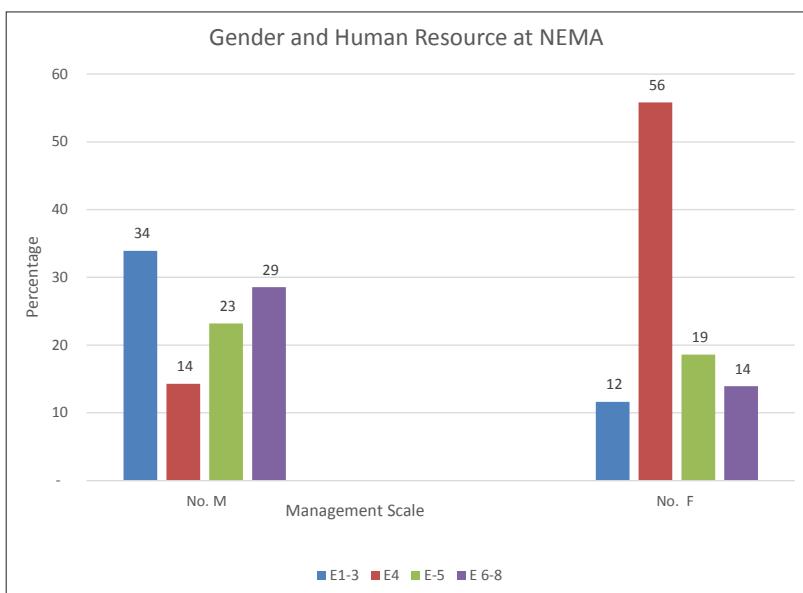


Source: Monitoring and Evaluation Department, 2018

Participation of women in environment conservation like Kidepo Critical Landscape (KCL) where women groups in Kotido, Kaabong, Kitgum, Agago, Otupe and Abim have been involved in the protection of shea butter tree, value addition and trading in shea butter products. These women are economically empowered due to these initiatives and are now able to provide livelihood support within their households.

The Authority recruited 35 in the FY 2017/18 in addition to the existing establishment of 64 staff. This brought the total number of staff to 99, and of which 56 were male and 43 female. The percentage of males in decision making in NEMA was at 34% compared to female at 12% in Top management. It should be noted, that 56% of females contribute to the decision making in ENR management at NEMA as seen on Graph 4.

Graph 4: Gender and human resource at NEMA



Source: Human Resource Department, 2018

5.5 Progress on Presidential Directives on ENR management

The key Presidential Directives and priorities which relate directly to the functionality areas of NEMA are as follows;

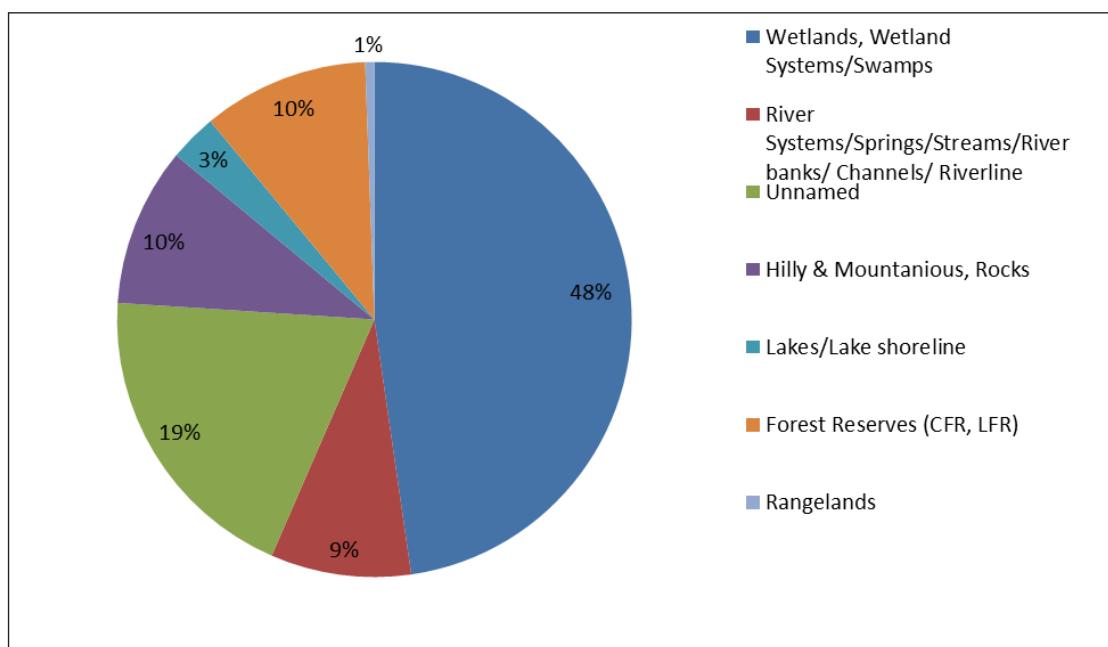
- (i) Fast tracking mechanisms for approval of EIAs;
- (ii) Stopping encroachment on forests, wetlands, river banks and lake shores;
- (iii) Promoting a clean and healthy environment;
- (iv) Setting up a Fund to buy out people settled in vital ecosystems – wetlands; and,
- (v) Scaling up provision of Water for Production Delivery Strategies.

In FY2016/17 NEMA reported on the reforms the Authority introduced to improve on efficiency and effectiveness within the review and approval of EIAs which achievements included administrative reforms, online review, fast-tracking and approval of EIAs, use of GIS, Google Map and Remote Sensing. Other achievements within the Presidential Directives on ENR in FY2016/17 included support to the degraded fragile ecosystems like Limoto wetland and Rwizi catchment, enforcement and eviction from forest reserves, and promotion of clean and healthy environment through public education, awareness and literacy programs.

In FY 2017/18, NEMA carried out a survey in 37 district local governments to establish locations, categories, ongoing interventions, challenges, and recommendations to facilitate the implementation of the Presidential Directives on ENR. Six (6) categories of ecosystems were identified which include wetlands, forests, hills and mountains/rocks, lakes, rivers and rangelands as seen in Figure 8 below.

All the ecosystems identified comprised the following: wetland coverage was 48%, rivers were 9%, lakes were 3%, hills, mountainous and rocks areas were 10%, forest reserves were 10%, rangelands were 1%, while the unnamed features are 17%.

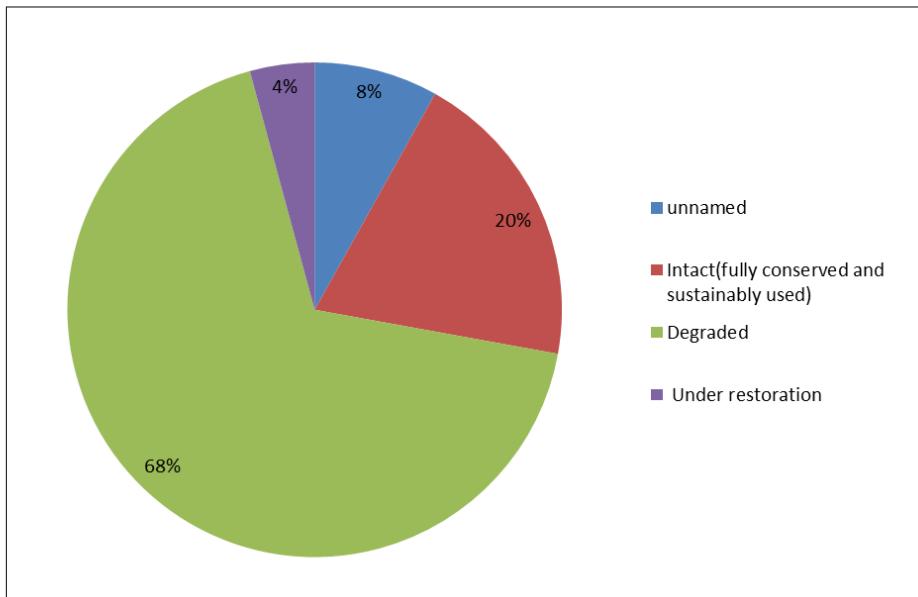
Figure 9: Fragile Ecosystems in Uganda



Source: **Monitoring and Evaluation Department, 2018**

Key findings also indicated that 68% of fragile ecosystems in Uganda were degraded, 20% were still intact or sustainably being used or under full conservation while 4% were under restoration and 8% remained unknown as presented by Figure 10 below.

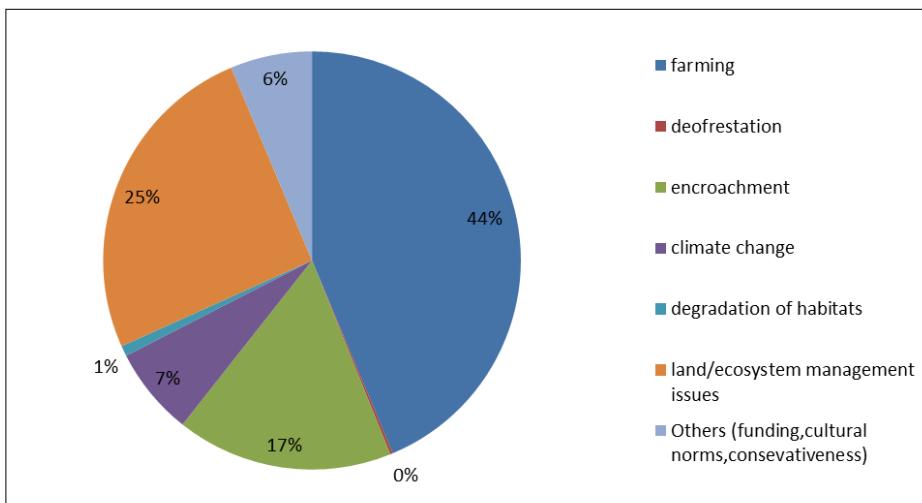
Figure 10: Status of fragile ecosystems in Uganda



Source: **Monitoring and Evaluation Department, 2018**

Issues identified that were related to conservation and utilization of environment and Natural resources include: farming (44%), deforestation (0%), encroachment (17%), climate change (7%), degradation of habitants (1%), land/ecosystem management issues were 22% (NEMA, NFA), technology and others (resources, cultural norms/conservativeness) were 6% as seen in Figure 10 below.

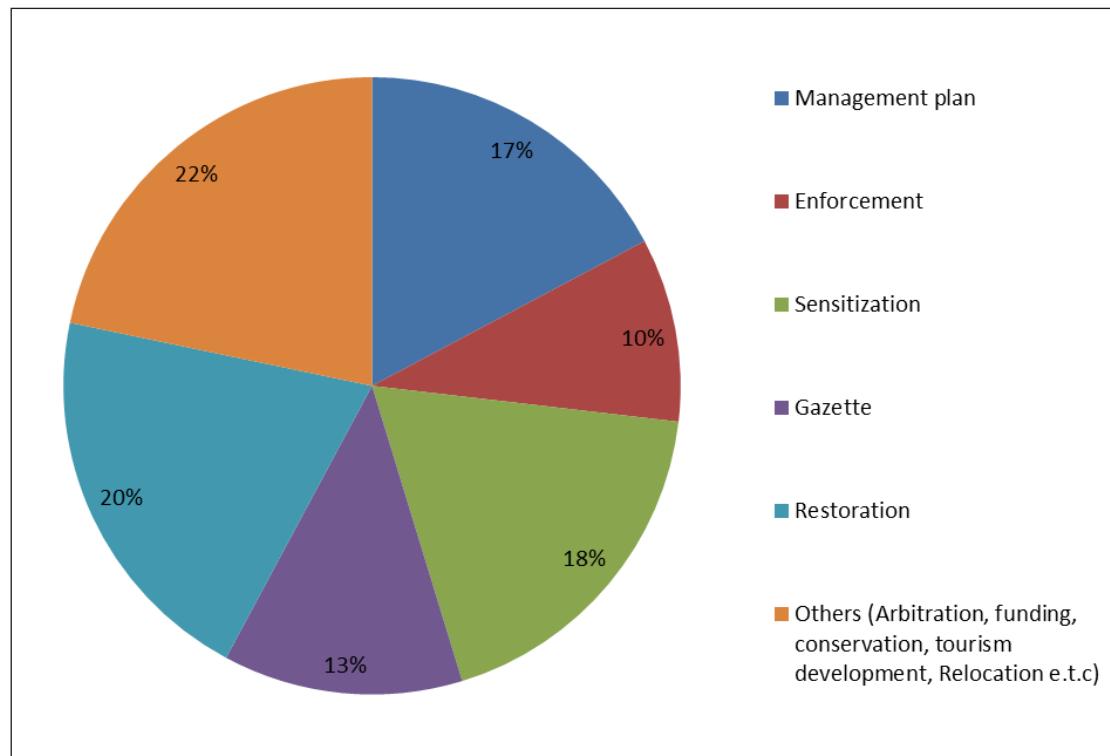
Figure 11: Issues Identified



Source: **Monitoring and Evaluation Department, 2018**

Figure 12 below shows the prioritized interventions for effective ENR management through the Presidential Directives and other initiatives across all the relevant sectors. The multi-sectoral interventions that are very important for both economic growth and environmental sustainability include enforcement of the environmental legislation, restoration of the degraded fragile ecosystems, establishment of management plans, gazette public and community sensitization, and other interventions like funding and value addition to ENR, and need to be closely monitored and supervised by NEMA to ensure that the desired results are achieved in all sectors.

Figure 12: Recommended and prioritized interventions for ENR management in Uganda



Source: **Monitoring and Evaluation Department, 2018**

5.6 The Manifesto and cross-sectoral interventions by NEMA

NEMA has supported the implementation of the NRM Manifesto and the Presidential Directives on ENR through ESIA review and approval processes and other interventions across sectors. Such interventions include;

5.6.1. Harnessing natural resources and agriculture

During the current manifesto period NEMA has been working with the key stakeholders and

realized the following achievements in harnessing natural resources and agriculture;

Recovery and restoration of 35km² area of a Limoto wetland and river system in Kibuku and Pallisa districts. Sustainable development approaches including irrigation, fishery and livestock have now been introduced using the Green Climate Fund (GCF) program under the theme “Building Resilient Communities and Ecosystems through Restoration of wetland and its catchments” which was a response to the Presidential Initiative on Wetlands.

Recovered and restored 80% of Abelet, Odukurun and Alere in Soroti District.

Recovery and restoration of River Rwizi and its catchment is ongoing in both the lower catchment area (Lake Kakyera) and the upper catchment (Kanyabukanja_Katara_Nyakambu wetlands system in Buhweju District). A total of 20,000 Gravellia trees (approximately 40 Acres) have since been planted along the shoreline of Lake Kakyera and cultivation is not permitted within a distance of 50 meters from the shoreline.

Recovered and restored over 300 hectares of Kanyabukanja_Katara_Nyakambu wetlands system in Buhweju District. Over 100 families that had settled in the wetland have been evicted and check dams have been installed to block the drainage channels that had been dug to drain water from the wetland.

Sand mining activities from the shoreline wetlands of Lwera, Bugiri, Mukono and Namayingo that hitherto supported the infrastructure development in the country were regulated through permit process where 4 companies complied. In addition, sand mining guidelines have been developed and this is further expected to support legal processes of extraction of this resource.

The Authority has coordinated and supported the restoration of threatened Shea Butter and Afzelia africana tree species in northern and north-eastern Uganda as follows;

- (i) NEMA with support of the Environment Protection Force (EPF) carried out enforcement to protect the integrity of the Shea butter tree in Serere, Soroti, Amuria, Katakwi, Kaabong, Abim, Otuke, Lira, Alebtong, Pader, Agago and Gulu districts. This followed a Presidential Directive on the protection of the shea butter tree as a crop. A total 227, 489 hectares of shea butter trees in Agago, Abim and Kaabong have been protected.
- (ii) NEMA is supporting local communities on value addition to shea products. So far over 600 women groups have been supported in the districts of Otuke and Agago and this has led to improved bargaining power of the women groups for better prices and consequently, increase in income.
- (iii) A National Strategy for the Conservation and Sustainable Use of the Shea Butter has been developed and its implementation is contributing to the implementation of the Presidential Directive on the Shea of 2006.

5.6.2. Infrastructural development

NEMA has contributed to the implementation of the National Development Plan 2 (NDPII) that prioritizes infrastructure development by ensuring timely reviewing and approving of necessary ESIAs.

Reviewed and approved the ESIAs of Critical Oil Roads, hydropower dams;- Karuma and Isimba, Standard Guage Railway, Entebbe Expressway, Entebbe Airport expansion and Bukasa Port among others.

NEMA has spearheaded the formation of mutli-sectoral committees from relevant ministries, departments, agencies and the academia; to monitor progress and give guidance to ensure compliance in environmental, health & safety, conservation and restoration related issues.

In the Oil and gas sector, NEMA has regulated infrastructural development for all drilling pads and waste generated during the exploration phase. NEMA is also guiding the process of regulation in the setting up of the refinery, central processing facilities and the oil pipeline to Tanga in Tanzania.

5.6.3. Security, good governance democracy

The Authority has supported law enforcement to foster good governance and security in the management of environment. NEMA coordinated the review of the National Environment Act (NEA 1995) and development of regulations to address new and emerging issues and enforcement of the current legal regime as follows;

The National Environment Bill 2018; The National Environment (Waste Management) Regulations, 2018; The Petroleum (Waste Management) Regulations 2018; The National Environment (Effluent) Regulations 2018; The National Environment (Oil Spill Prevention, Preparedness and Response) Regulations, 2018; The National Environment (Strategic Environment Assessment) Regulations, 2017; The National Oils Spill Contingency Plan, 2018; and, Guidelines for the Management of Landfills in Uganda and the National Strategic Environment Assessment Guidelines.

Enforcement and control of depletion and degradation endangered biodiversity species like Afzelia africana and shea butter trees. A total of 6 trailers carrying the tree logs were impounded in northern Uganda and west Nile districts through arrest and prosecution of the illegal dealers in these tree species.

Over 60 Judiciary and Directorate of Public Prosecution (DPP) Staff have been trained on management of environmental crimes and court cases.

All Environmental Protection Force (EPF) personnel have been trained on detection and prosecution of environmental crimes.

Supported six (6) districts; Dokolo, Ngora, Isingiro, Ntungamo, Mitooma and Buhweju; to develop byelaws and ordinances on environment and natural resources management to enhance decentralized environment management.

5.6.4. Trade and industry

NEMA has continued to guide the players in trade and industry sectors on environment management best practices. Due to the continuous enforcement and compliance assistance by NEMA, environmental compliance in the sector has improved from 56% in FY 2010/11 to 75% in FY2016/17. Besides, NEMA has trained workers from over twenty (20) industries on ways to mitigate pollution under the Kampala Pollution Task Force. Notably, industries that have benefitted from NEMA's compliance assistance interventions include; Hima and Tororo cement factories; SCOUL and Kakira sugar factories; Britania, Mogas, Uganda Batteries, Harris International Limited among others.

5.6.5. Information and communication technology

NEMA has developed an Electronic Environmental & Social Impact Assessment ESIA database that has reduced delays in the ESIA review and approval processes and thus improving on efficiency and effectiveness as follows;

ESIAs are now tracked/reviewed online and digital copies are sent to lead agencies on time to enable the implementation of national programs. Since the operationalization of the electronic ESIA system the number of approved ESIAs has gone up by 93%.

NEMA has also introduced the use of Geographical Information Systems (GIS), Remote Sensing (RS) and Google Earth for real-time data and information gathering to feed into national reports.

Furthermore, NEMA has joined the one-stop centre at Uganda Investment Authority as one platform that ensures investors' environment related requirements are reviewed and approved without delays in order to ensure that government development priorities like infrastructure development and industrialization are met in a timely manner.

The Authority also coordinates the management of electronic wastes from ICT and other sectors while at the same time provides guidance in the management of electronic waste through the review and approval of ESIAs.

5.6.6. Education and human capital development

NEMA has designed and implemented programmes aimed at increasing environmental literacy and popular participation in environmental initiatives as follows;

Coordinated and supported key MDAs namely; OPM, NPA and UBOS on the integration of environment management in sector planning processes through training programs on the development and use of environmental statistics and economic valuation of environment and natural resources.

Coordinated and supported local governments on the integration of environmental issues into local government planning processes in sixteen (16) districts of Soroti, Kapchorwa, Abim, Arua, Nebbi, Maracha, Amuria, Bukwo, Kween, Bududa, Ngora, Kumi, Masindi, Buliisa, Manfwa and Kiryandongo. In these districts a total of 540 community groups were sensitized on environment conservation and livelihood.

Sensitized district leaders and technical officers on their roles and responsibilities in decentralized environment management in the districts of Tororo, Mbarara, Arua, and Soroti-Teso and Karamoja sub regions. A total of 328 leaders and officials have participated in these meetings.

A total of 1,025 Local Environment Committees (LECs) in 7 districts of Apac, Amolatar, Buhweju, Mitooma, Kiruhura, Pallisa and Kibuku have been sensitized and trained on their roles in decentralized environment management.

Carried out strategic environmental education and awareness programs for 300 artisanal gold miners on better mining methods and practices in Mubende and Kayunga Districts.

Supported School Environment Education Programs (SEEP) in 200 schools in the districts of Busia, Manafwa, Kapchorwa, Mbale Municipal Council, Kyegegwa, Kabarole and Ntoroko districts through training of trainers (TOTs) in schools.

Supported Education for Sustainable Strategy (ESD) in universities and tertiary institutions at Ndeje University, Nyabeya Forestry College, Uganda Martyrs' University (Nkozi -UMU), Kabale University, and Islamic University in Uganda (IUIU).

Various materials were periodically produced and distributed to target stakeholders at NEMA, at different fora and on request. A wide range of the materials produced were based on different thematic areas; 31650 different types of information educational materials were produced in FY2016/17. The outcome of the section therefore was increased access to and use of NEMA information and/or institutional achievements; access to corporate issues; enhanced knowledge and understanding of World Environment (WED), the WED 2018 theme, the *Kaveera* ban and alternatives; enhanced partnerships and increased public participation; among others; and, a refined and updated information database of educational issues in the ENR sector strengthened.

Production of tailored IEC materials was preceded by two (2) monitoring, pre-testing and data collection exercises undertaken in Manafwa, Bulambuli, Nebbi and Zombo Districts, respectively, based on different thematic areas namely, fragile ecosystems, community environmental

conservation initiatives, formal and non-formal education sectors, hydro power, climate change, new and emerging environmental issues, and hotspots, among others. The pretesting was expected to improve on access to environmental information and education for the overall purposes of; enhanced knowledge and understanding, attitude change, and increased public participation in environment management; enhanced information sharing among the public; enriched information data base for tailored IEC materials and publications such as newsletters, NSOER, NEMA website; and, strengthened partnerships, among others. Consequently, adequate information was gathered and used to produce and disseminate information materials.

10,500 copies of the NEMA Quarterly Newsletter (different quarterly issues) were produced and distributed to target stakeholders highlighting different quarterly institutional achievements; WED 2018; partners' highlights, opinions and related activities.

Overall, 33,229 different types of IEC materials and publications were produced and disseminated in FY 2017/18 of which 47.3% were corporate materials; 31.6% for information, education, promotional, and publicity/branded materials; and 21.1% was the publication of NEMA Quarterly Newsletter. Digital and hard copies of all public information education and communication (IEC) materials including magazines, newsletters, leaflets, brochures, and other materials are accessible to the public at the NEMA Library.

A Total of 1153 EIAs have been distributed to Environmental Information Resource Centres in 24 District Local Governments to support their libraries. The Districts include; Bududa, Manafwa, Busia, Bulambuli, Kaliro, Kalangala, Lyantonde, Rakai Sembabule, Mitooma, Ntungamo, Kabale, Kisoro, Masaka, Mbarara, Bushenyi, Rukungiri, Kanungu, Mityana, Mubende, Kyenjojo, Kabarole, Kasese, Bundibugyo.

Undertook public education and awareness in regard to the protection of River Nyagak catchment West Nile Sub Region. A total of 316 communities living in and around the River Nyagak Catchment area have been and sensitized on ecosystems restoration and environment protection.

5.6.7. Culture and entertainment

The Authority does not approve ESIAs for projects that destroy major cultural heritage sites or antiquities. In this regard;

NEMA has continued to promote and support the planting of indigenous tree species and protected traditional fish breeding grounds as is the case with the support NEMA has provided to the Alur Kingdom; and

A total of 36 operations and notices on noise pollution were issued to suspects in the FY 2016/2017. NEMA works with the Urban Authorities and the Environment Protection Force (EPF) to regulate noise levels through routine surveillance, monitoring and community policing of entertainment establishments.

5.6.8. Regional co-operation and international obligations

NEMA supports and coordinates the implementation of the following Multilateral Environment Agreements in Uganda;

- (i) The United Nations Framework Convention on Climate Change (UNFCCC);
- (ii) Fora and convention meetings supported by Convention on Biological Diversity (CBD);
- (iii) Fora and convention meetings of Stockholm Convention on Persistent Organic Pollutants (POPs);
- (iv) Meetings of Vienna Convention and the Montreal protocol on Ozone Depleting Substances and products technical meetings;
- (v) Convention and technical meetings of the Minamata Convention on Mercury;
- (vi) UN meetings on the Sustainable Development Goals (SDGs)
- (viii)The African Ministerial Conference on Environment (AMCEN);
- (ix) IGAD meetings on environment and natural resources management; Implementation of Oil for Development Program through the Sustainable Management of Oil and Gas project (SMOGP) funded by the Norwegian Government ; and,
- (x) Bilateral meetings within EAC and AU on environment and natural resources management.

The participation of NEMA in the regional co-operation and international obligations has contributed greatly to resource mobilization for environment management in Uganda especially in regard to biodiversity conservation, waste and sound chemical management

5.7 Challenges faced in the implementation of the Presidential Directives

The major policy- related challenges that need strategic actions are;

Low capacity of local governments and the Lead Agencies in environment management. The institutional capacity gaps relate to low staffing, inadequate funding and tools for environment management; and

Inadequate institutional synergies at national level and low political support and commitment to environmental compliance and enforcement especially at local government levels. This has resulted into low prioritization and hence inadequate budgeting for ENR management at both national and local government levels.

5.8 Recommendations

The proposed strategic actions include;

- (i) Robust resource mobilization for ENR management to Lead Agencies and Local Governments through provision of conditional grants and program/project proposal development. Increased resources would facilitate improvement in staffing levels, increased funding and tooling/equipping of MDAs and local governments for effective ENR management;

- (ii) Establishment of mechanisms for institutional coordination and synergies such as policy and legal instruments, MoUs and partnership platforms, among others; and,
- (iii) Continuous policy dialogue and awareness engagements with local government political leaders and managers, to demonstrate commitment and prioritization of ENR during development planning and budgeting.

5.9 Conclusion

The National Environment Management Authority (NEMA) has built its capacity to successfully regulate, monitor and supervise obligations under the Presidential manifesto and Directives across sectors and local governments. However NEMA needs the following support to ensure efficient and effective implementation of those obligations:

- (i) Enhancing the capacity of local governments and the key MDAs through financing, staffing and re-tooling (equipment); and
- (ii) Political commitment and support especially at local government level to enhance environmental compliance enforcement, and prioritization of ENR in planning and budgeting at both central and local government levels.

6.0 Key planned activities but not implemented in FY2017/18

Due to budgetary constraints caused by inadequate funding some activities were not implemented in FY2017/18. However, NEMA Management has taken actions to ensure that these activities are planned and budgeted for in FY2018/19 so that the implementation of the authority's 5 Strategic Plan and the expected results are not negatively affected. Table 16 below demonstrates this;

Table 16: Key planned activities that were not implemented in FY2017/18

Activity	Approved budget in FY2017/18	Remarks and actions taken/recommendation
Support the use of energy efficient systems in learning institutions	60,000,000	Included in FY2018/19
Train gazetted environment inspectors	40,000,000	Gazettement delayed activity under-budgeted Activity included in FY2018/19 and 75,000,000= provided
Benchmark exercise to learn lessons from regional authorities on EIA review as per Presidential Directives on ENR	58,000,000	Not prioritized in FY2018/19
Complete the development of an Environmental Management System (EMS) for NEMA	19,000,000	Not prioritized in FY2018/19 Internal capacity enhancement is required to support the process and implementation within the current acceptable international standards of EMS; this is part of the specialized or professional development training program in FY2018/19
Support innovative resource utilizations in industries	60,000,000	Not included in FY2018/19 but this activity is already part of environmental inspections, audit and compliance assistance to industries
Undertake greening initiatives to support sustainable urban development	40,000,000	Not included in FY2018/19 There is need to dialogue with the target urban authorities to identify land in planned areas for the establishment of the green belts
Strengthen internal capacity on Climate change concepts	20,000,000	Included in FY2018/19
Procure communication support equipment.	30,000,000	Included in FY2018/19 and already within procurement process
Support operations of the e-waste collection centre	160,000,000	Included in FY2018/19 and already under implementation in partnership with Ministry of Defence
Procure branded materials and wares	190,000,000	Included in FY2018/19
Procure equipment and protective gears for environment and compliance monitoring	80,000,000	Included in FY2018/19 and some items already procured

Source: **Monitoring and Evaluation Department, 2018**



A Talking tree at a Primary school

ANNEXES

ANNEX 1: GOU FY 2017/18 Budget Performance

GOU - FY 2017/18					
Key Result Areas (KRAs)	GOU	Released Budget	Spent	% released	% spent
Environmental Compliance and Enforcement Strengthened	2.66	2.06	2.06	77.4	100
A green economy approach to ENR management developed and promoted	0.12	0.11	0.11	91.6	100
Strategic environment Literacy, Access to information and popular participation strengthened	0.34	0.32	0.31	94	97
Human and financial capacity of NEMA Strengthened to perform its mandate and statutory functions	9.93	9.74	8.45	98	87
National, Regional and International partnerships for sustainable development strengthened	0.05	0.05	0.05	100	100
	13.1	12.28	10.98	93.7	89.4

Source: Finance Department, 2018

ANNEX 2: NEF FY 2017/18 Budget Performance

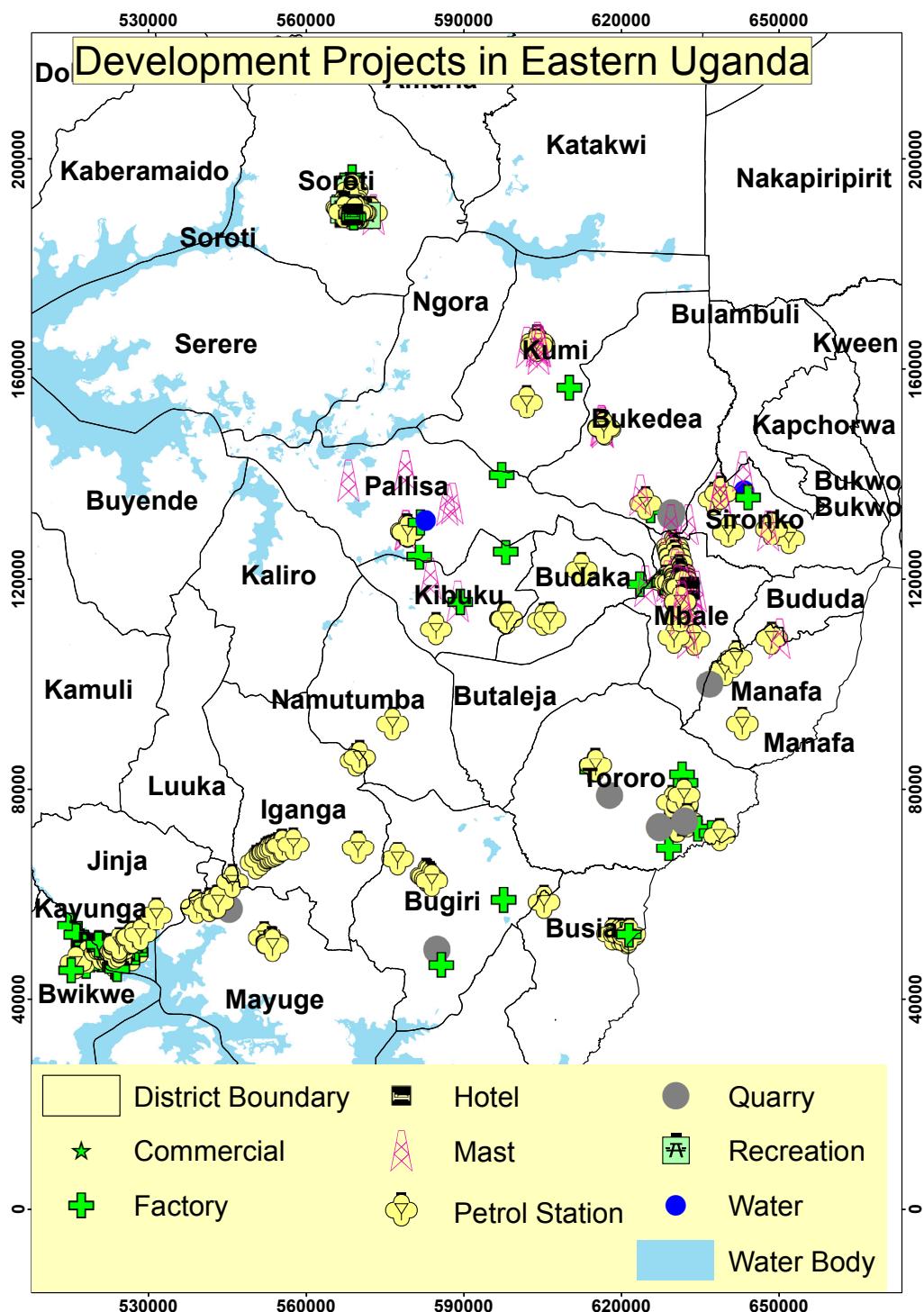
NEF - FY 2017/18					
Key Result Areas (KRAs)	NEF	NEF-Released	Spent	% Release	% Spent
Environmental Compliance and Enforcement Strengthened	2.525	2.525	2.147	100	85
A green economy approach to ENR management developed and promoted	0.503	0.503	0.428	100	85
Strategic environment Literacy, Access to information and popular participation strengthened	1.382	1.382	1.118	100	80.1
Human and financial capacity of NEMA Strengthened to perform its mandate and statutory functions	5.353	5.353	5.288	100	99
National, Regional and International partnerships for sustainable development strengthened	0.644	0.644	0.864	100	134.1
	10.4	10.407	9.845	100	95

Source: Finance Department, 2018

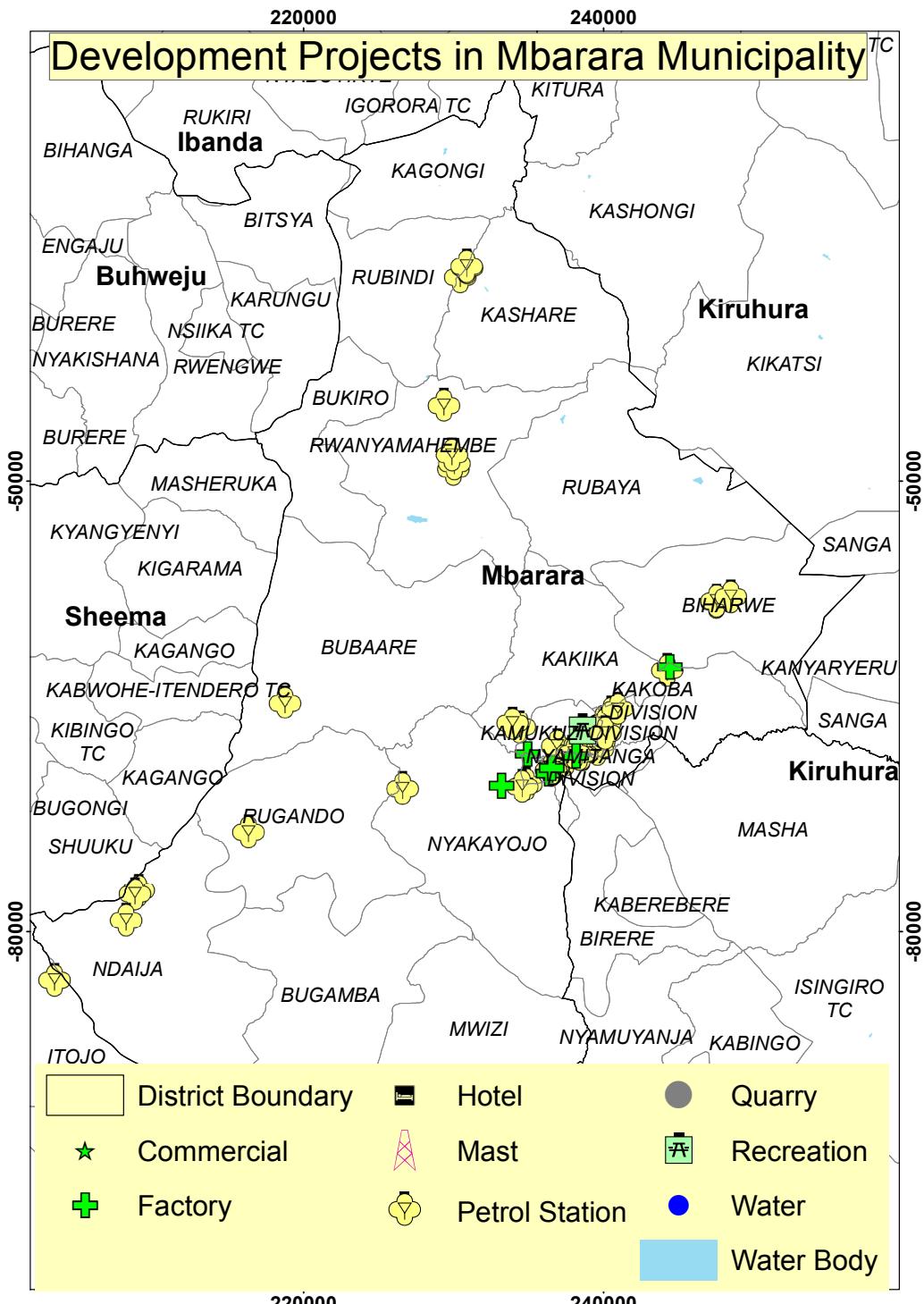


A community member explains the history of the Kanyabukanja-Katara wetland system in Buhweju District. (NEMA 2018)

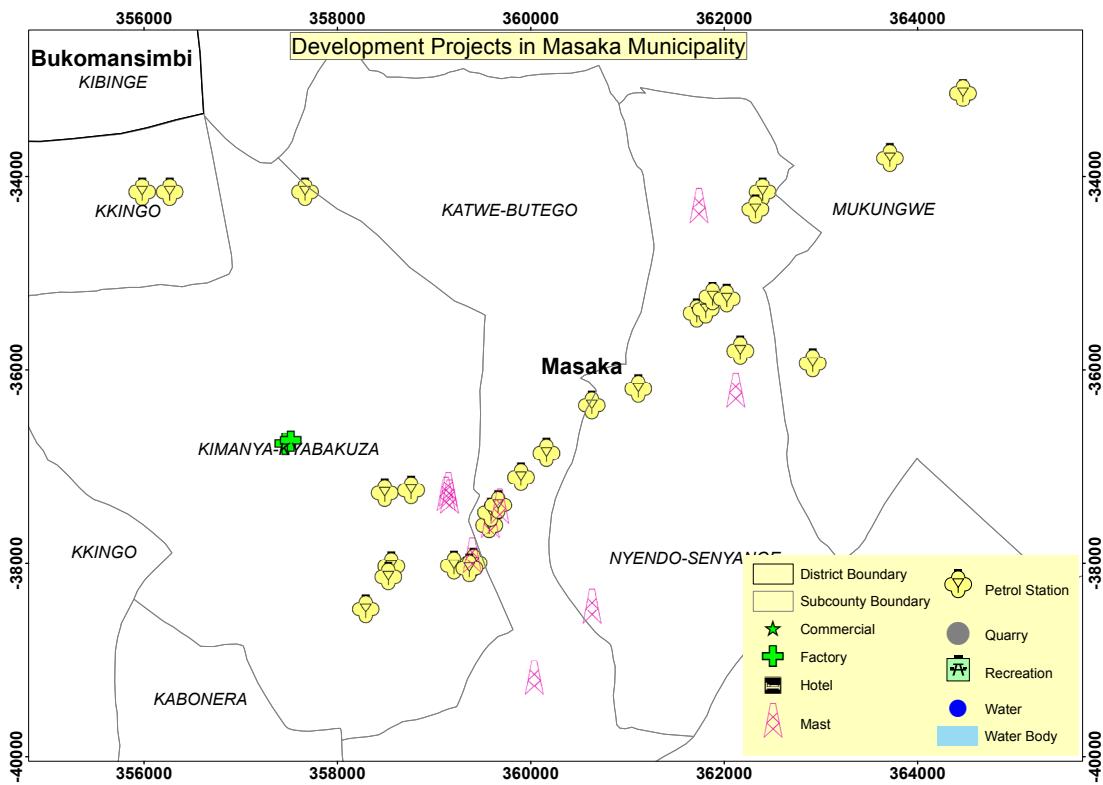
ANNEX 3: Maps of projects and facilities for environmental monitoring and compliance enforcement



Source: Policy, Planning and Information Directorate, 2018

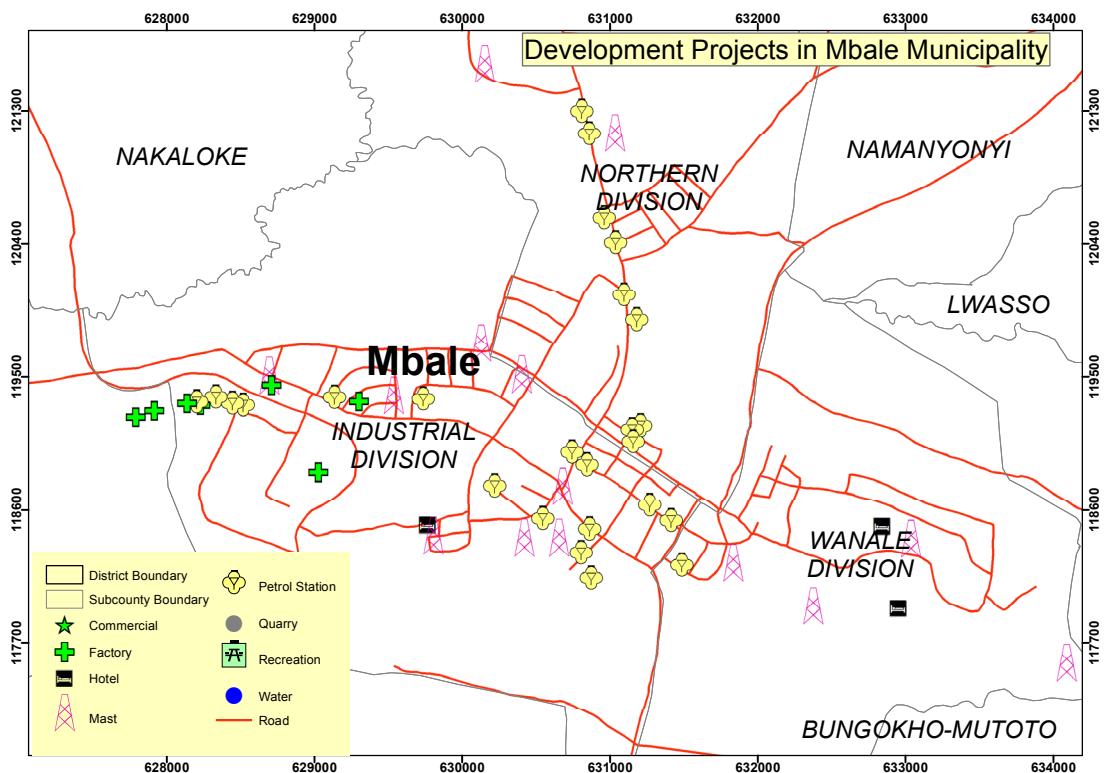


Source: Policy, Planning and Information Directorate, 2018



Source: Policy, Planning and Information Directorate, 2018

It is important to note that the most common facilities inspected and mapped in the selected parts of Uganda (mainly urban centres) are gas filling (petroleum) station and telecommunications masts. This situation calls for some policy responses through regulations, guidelines and standards to control the mushrooming stations and ensure proper management of petroleum products in Uganda.



Source: Policy, Planning and Information Directorate, 2018



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