
Sector: Water and Environment

Foreword

This is the third sector Budget Framework Paper (BFP) in the implementation of Uganda's second National Development Plan (NDP2) aimed at propelling the country into a middle income status by 2020. It recognizes that water and environment play a critical role in the national economy. For example whenever there is a drought of some sort, food supply reduces and therefore food prices increase affecting the entire economy. It is now time to recognize the critical role water and environment play to support the growing, processing, transportation and consumption of the everyday goods and services.

To back up the budgetary allocations proposed in this BFP, the Ministry of Water and Environment has relied on the data and analysis from a special study entitled "*Economic study on the Contribution of Water Resources Development and Environmental Management to Uganda's Economy*" that was undertaken with the support from World Bank in FY2015/16.

Findings, from this study, indicate that effective water quantity and quality management are critical to achieve Uganda's short and long-term development goals. It is emphasized that although the most water intensive sector is agriculture, the most water intensive products are from manufacturing. As Uganda seeks to industrialize, water management will therefore be critical to ensure steady growth of industrial sectors. Further still, manufacturing is reported to require 15.9% of direct non-energy water use, but 41.2% of final non-energy water use is embodied with manufactured products. Indeed, manufacturing depends on electricity inputs more than any other sector of the economy (34.2% share), and electricity is produced primarily through hydropower generation. Therefore it is important that water resources are properly managed for steady and increased amount of electricity generation.

In view of the strong relationship and support the sector provides to other sectors in the economy, it is important to consider the un-funded priorities listed in this BFP. Reduced funding and/or performance by this sector means that roads/bridges will continue to be swept away by ravaging flood waters that could have been well managed from the catchment of origin. Schools and other public infrastructure will also continue to suffer the effects of ravaging storm winds due to depletion of natural ecosystem windbreaks such as forests/trees and wetland vegetation. The frequency and intensity of droughts causing food shortages and hence requiring food aid to the most vulnerable communities could be reduced through increased provision of water for production facilities countrywide. Overall macro-economic management will suffer the consequences of reduced production and productivity owing to poor management of the environment and natural resources.

I would like to call upon all stakeholders to support the water and environment sector to implement its plans as outlined in this document, recognizing the important role the sector plays towards achievement of the NDP2 targets and the contribution to the globally agreed Sustainable Development Goals (SDGs). As the budget cycle moves to the next steps, it is my sincere appeal that more resources are found through inter-sectoral savings/transfers or any injections to enable the sector to deliver outputs that will support the rest of the sectors to enable this country realize middle income status by 2020.

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Abbreviations and Acronyms

BFP	Budget Framework Paper
SDGs	Sustainable Development Goals
ENR	Environment and Natural resources
SWG	Sector Working Group
WESWG	Water and Environment Sector Working Group
MTEF	Medium Term Expenditure Framework
GDP	Gross Domestic Product
NDP	National Development Plan
WB	World Bank
MPED	Ministry of Finance, Planning and Economic Development
NPA	National Planning Authority
OPM	Office of the Prime Minister
NWSC	National Water and Sewerage Corporation
NGO	Non Governmental Organization
O&M	Operation and Maintenance
UNMA	Uganda National Meteorological Authority
NFA	National Forestry Authority
NEMA	National Environment Management Authority
EIA	Environment Impact Assessment
LGs	Local Governments
GIS	Geographical Information Systems
MEAs	Multilateral Environment Agreements
NEA	National Environment Act
ENR	Environment and Natural Resources
RGCs	Rural Growth Centres
DWD	Directorate of Water Development
MCM	Million Cubic Meters
DWRM	Directorate of Water Resources Management

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GFS	Gravity Flow Schemes
DEA	Directorate of Environment Affairs
GHG	Green House Gases
NSOER	National State of Environment Report
WfP	Water for Production
DANIDA	Danish International Development Agency
NMTS	National Meteorological Training School
NFC	Nyabyeya Forestry College
HPMA	Hand Pump Mechanics Association
TSU	Technical Support Unit
WSDF	Water and Sanitation Development Facility

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S1: Sector Overview

This section provides an overview of Sector Expenditures and sets out the Sector's contribution to the NDP, its policy objectives, and key performance issues.

(i) Snapshot of Sector Performance and Plans*

S1.1 Overview of Sector Expenditure (Ushs Billion)

<i>(Ushs. Billions)</i>	FY2015/16 Outturn	FY2016/17		MTEF Budget Projections				
		Approved Budget	Spent by End Q1	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22
Recurrent Wage	13.570	14.681	3.557	14.681	15.415	16.185	16.995	17.844
Non Wage	28.868	29.768	4.529	25.963	28.559	31.415	36.127	41.546
Devt. GoU	183.352	287.976	105.344	314.880	362.112	434.535	521.441	1,042.883
Ext. Fin.	105.009	357.129	15.586	343.606	370.487	165.292	111.231	111.231
GoU Total	225.790	332.424	113.430	355.524	406.086	482.135	574.564	1,102.274
Total GoU+Ext Fin (MTEF)	330.799	689.554	129.016	699.130	776.573	647.427	685.795	1,213.505
<i>A.I.A Total</i>	22.894	46.770	7.175	43.623	44.615	45.661	46.803	48.043
Grand Total	353.693	736.324	136.191	742.753	821.189	693.088	732.597	1,261.548

(ii) Sector Contributions to the National Development Plan

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The Water and Environment Sector provides key services for the attainment of the overall targets in the second National Development Plan (NDP2). The sector implements programmes on enforcing compliance with environmental and natural resources policies, legislation and standards at all levels that will basically assure the integrity and functionality of natural ecosystems to offer valuable services to the rest of the sectors of the economy. Some of the sector programmes promote value addition to the natural resources, promote sound management of hazardous chemicals and e-waste including establishment of modern waste management infrastructure.

Nationwide tree planting and restoration of degraded natural forests and community forests will be undertaken to regain increased national tree cover for increased household incomes, watershed management, adaptation and mitigation of climate change effects and disaster risks. The key drivers of natural ecosystem (forest, wetlands etc) loss and degradation will be addressed at all levels involving all stakeholders including initiatives for provision of alternative livelihood options.

The national meteorological service is being revamped to provide accurate and reliable weather information that will be crucial to the rest of the sectors of the economy. Modern and specialized equipment will be procured and institutional human resources capacity enhanced through training and regional and international data sharing networks.

Provision of safe and clean water supplies as well as improved sanitation facilities will result in the reduction of the burden and effects of ill-health at domestic level as well as for improved public health. Households will save time hitherto spent travelling long distances and waiting in queues to collect water and transfer it to other productive uses. The school going children (boys and girls) will be freed to register regular attendance and concentration at school because water facilities are nearer to their homes/schools and available to deliver the service at all times.

Municipal and urban piped water and sewerage systems offer the crucial input required in manufacturing and modern domestic use. The NDP target of achieving 95% urban water coverage in 2020 will be realized through the on-going rehabilitation, expansion and development of piped water systems in small and large towns to support industrialization. The key focus is on fast tracking those towns and areas that have been earmarked as industrial parks countrywide.

Programmes for construction of multi-purpose surface storage facilities/reservoirs, undertaken by the Ministry, will support agriculture (crops and livestock), aquaculture and provide resilience to the effects of climate change. Large irrigation schemes will continue to be designed and developed to boost production and support food security hence reducing the need for food aid to communities.

The sector will continue to pursue programmes that promote sustainable management of its water resources to ensure availability in adequate quantity and quality for all uses at all times. Uganda heavily relies on hydropower generation for its industrial ambitions spelt out in the NDP2. Therefore availability of adequate water resources is very crucial. The key focus is on managing the resources sustainably through implementation of approved catchment management plans developed in a participatory manner with all stakeholders.

(iii) Medium Term Sector Policy Objectives

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The medium term sector policy objectives towards the targets set out in the NDP are as follows:

- (a) To increase provision of water for production through development of multi-purpose bulk water storage and supply systems with the involvement of all stakeholders as appropriate.
- (b) To increase water supply coverage in rural areas while ensuring equity through providing at least each village with one safe and clean water source and where technically feasible piped water options (gravity flow systems, solar pumped boreholes and surface treated systems) will be considered.
- (c) To promote improved sanitation services in rural and urban areas including the promotion of hand-washing with soap.
- (d) To increase water supplies and sewerage services in small towns, large towns, municipalities and cities focusing on the areas earmarked for industrial parks
- (e) To improve water resources management to ensure adequate quantity and quality for the various uses focusing on compliance to existing laws and regulations on the use of the resources at all levels.
- (f) To increase the sustainable use of the environment and natural resources through restoration and to maintain the hitherto degraded ecosystems and undertake massive nationwide tree planting.
- (g) To promote the wise use of wetlands through implementation of approved management plans developed in a participatory manner.
- (h) To increase the functionality and usage of meteorological information to support sector specific early warning to combat the effects of climate change and disaster risks.
- (i) To develop sector capacity throughout all the institutions and support other stakeholders in the sector.
- (j) To review, develop and reform institutional frameworks, laws, policies and regulations to ensure fast and effective delivery of services.
- (k) To promote gender and equity considerations and increase the fight against HIV/AIDS through the sector programmes.

S2: Sector Performance and Plans to Improve Sector Outcomes

Summary of Sector Performance by Sector Outcome

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Outcome 091044: Increased access to safe water and sanitation facilities for rural, urban and water for production uses

Increased the rural water supply coverage by 2% point from 65% to 67% by June 2016.

Increased urban water coverage to 77% covering both small and large towns under NWSC and the DWD and LGs.

Increased sanitation coverage including promotion of washing hands with soap in both rural and urban areas through sensitization of communities and institutions.

Rain water harvesting has been promoted by constructing demonstration facilities in public places/institutions and encouraging households to adopt the technology option at their levels and cost.

Small and large surface water reservoirs have been developed to increase storage capacity (in Million Cubic Meters - MCM) for use especially in water stressed areas.

3 large irrigation schemes have been completed to support all-year round irrigated crop production

Outcome 098449: Increased availability of good quality and adequate water resources to support socio-economic transformation

Catchment based water resources management has been adopted and is implemented through the establishment of regionally based Units the Water Management Zones that provide support to Local Governments and communities.

Regular collection and testing of samples has been undertaken providing users with updated information on the quality of the water.

Enforcement has been heightened for compliance to permit conditions for all users - abstractors and dischargers, to ensure sustainability and reduced pollution. The overall compliance rate has increased to 54%.

Outcome 098849: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources

Compliance to environmental laws has been enhanced through enforcement support provided by the EPF and the gazetted Environment Inspectors as well as consultative meetings with communities to sensitize them on the value and importance of maintaining the integrity of environment and natural resources.

The capacity of the Uganda National Meteorological Authority has been enhanced through recruitment of technical staff as well acquisition of some of the required modern equipment.

Restoration of degraded ecosystems has resulted in recovery and improvement in the percentage coverage of Uganda surface area by vital ecosystems.

The planning and implementation of programmes in all sectors of the economy has significantly adopted integration of environment and climate change guidelines which were developed and issued by the sector.

Table S2.1: Sector Outcome Indicators

Sector Outcome Indicators	2016/17 Target	2017/18 Target	Medium Term target
1-Increased access to safe water and sanitation facilities for rural, urban and water for production uses			
% of people accessing safe water sources in rural and urban areas.		73%	77%
% of people accessing safely managed sanitation services.		82%	85%
% of irrigable area and livestock provided with improved water for production facilities		17%	19%

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2-Increased availability of good quality and adequate water resources to support socio-economic transformation		
% of water users and waste water dischargers complying with resource use conditions.	50%	55%
% of samples (resource and use) complying with National Standards.	56%	60%
% of catchments with approved management plans to guide investments in water resources related activities.	25%	35%
3-Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources		
% of land area covered by vital ecosystems.	17%	19%

Table S2.2 Performance Information by Vote by Programme Contributing to Sector Outcome

Water and Environment			
Vote 019 - Ministry of Water and Environment			
Accounting Officer: David.O.O.Obong			
Programme 01 Rural Water Supply and Sanitation			
Objective To ensure availability and access to safe and clean water as well as hygienic sanitation facilities in rural areas country-wide			
Responsible Officer Commissioner Rural Water Department			
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Increased access to safe water and sanitation facilities for rural, urban and water for production uses			
No. of LG staff trained in Sanitation and Hygiene	130	130	130
No. of national sanitation and hygiene campaigns undertaken**	02	02	02
No. of piped water supply systems designed **	12	13	13
No. of piped water systems/GFS constructed in rural areas**	11	15	15
No. boreholes constructed	270	270	270
No. of LG staff trained on Operations and Maintenance	100	100	100

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Programme	02 Urban Water Supply and Sanitation		
Objective	To provide safe water and improved sanitation facilities in Small Towns, large towns, Municipalities and the cities through MWE and NWSC.		
Responsible Officer	Commissioner Urban Water Supply and Sewerage		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Increased access to safe water and sanitation facilities for rural, urban and water for production uses			
No. of piped water supply systems under construction in urban areas**	88	60	35
No. of sewage connections made*	1	1	1
No. of energy packages for pumped water schemes installed	26	15	16
No. of sanitation facilities constructed (Household, Public and faecal sludge management)	36	40	45
No. of schemes supported in operation and maintained	35	40	45
No. of hygiene promotion campaigns (Urban) undertaken	45	46	47
No. of masons trained in construction of sanitation facilities	77	77	77
No. of piped water supply systems designed **	21	25	30
Programme	03 Water for Production		
Objective	To provide and ensure functionality of multi-purpose water for production facilities in order to enhance production and productivity thereby contributing to socio-economic transformation as well as mitigation of the effects of climate change and disaster risks.		
Responsible Officer	Commissioner Water for Production		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Increased access to safe water and sanitation facilities for rural, urban and water for production uses			
No. of water management committees formed and trained	15	16	15
Acreage of irrigation land provided with water	100	200	600
KM of transmission main laid	1	1	1
No. of Bulk Water supply systems designed	1	1	1
Acreage of irrigation land provided with water	3	3	3
Number of Dams Constructed	1	1	1
Number of Dams designed	4	4	4
Number of Valley Tanks Constructed	25	10	05

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Programme	04 Water Resources Management		
Objective	To ensure that the water resources of Uganda are equitably shared and wisely used for sustainable socio-economic development.		
Responsible Officer	Director Water Resources Management		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Increased availability of good quality and adequate water resources to support socio-economic transformation			
Number of permit holders monitored for compliance to permit conditions to permit conditions(water abstraction)*	200	250	300
Number of permit holders monitored for compliance to permit conditions to permit conditions(water discharge)*	200	250	300
Programme	05 Natural Resources Management		
Objective	To coordinate rational and sustainable utilization, development and effective management of environment and natural resources for socio-economic development of the country		
Responsible Officer	Director Environment Affairs		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources			
Area (Ha) of the degraded wetlands reclaimed and protected	300	450	550
Length of wetland boundary demarcated (Km)	320	400	450
No. of wetlands management plans developed and approved	20	30	35
Programme	06 Weather, Climate and Climate Change		
Objective	To coordinate and monitor implementation of Uganda's Climate Change Policy and the respective international agreements for increased resilience of Uganda's population to climate change and disaster risks.		
Responsible Officer	Commissioner Climate Change Department		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources			

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Programme	49 Policy, Planning and Support Services		
Objective	To coordinate and support all departments and agencies under the Ministry to comply with Public Service standing orders and regulations through carrying out administrative back up, sector strategic planning and budgeting, capacity building, legislation, policy and regulation, undertake monitoring and Sector Performance Reviews and reporting.		
Responsible Officer	Under Secretary Finance and Administration		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
N / A			
Vote 122 - Kampala Capital City Authority			
Accounting Officer:	Jenifer . S . Musisi (PhD)		
Programme	08 Sanitation and Environmental Services		
Objective	<ul style="list-style-type: none"> To improve access and usage of sanitation facilities and services. 		
Responsible Officer	Director Public Health and Environment		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Increased access to safe water and sanitation facilities for rural, urban and water for production uses			
Vote 150 - National Environment Management Authority			
Accounting Officer:	Dr. Tom O Okurut		
Programme	51 Environmental Management		
Objective	Promote sound environment management and prudent use of environment and natural resources in Uganda.		
Responsible Officer	Dr. Tom O Okurut		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources			
Area (Ha) of degraded Lakeshores and river banks restored	300	450	450
No. of EIA reports concluded	2500	3000	3200
No. of environmental cases reported to courts of justice	80	50	40
No. of environmental inspections and audits carried on facilities and investments	1400	1500	1600
Vote 157 - National Forestry Authority			
Accounting Officer:	Michael Mugisa		

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Programme	52 Forestry Management		
Objective	To improve the management and productivity of Central Forest Reserves, expand Partnership arrangements with local communities, private sector and other government agencies, supply forest products and services at local, national, regional and global levels and achieve organisational sustainability.		
Responsible Officer	Paul Buyerah Musamali		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
Sector Outcome: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources			
Area (Ha) of degraded forests replanted	1060	1200	1300
Distance (Km) of forest boundary resurveyed and marked	215	500	700
Area (ha) of Forest Plantations planted and surviving by National Forestry Authority**	661	1000	1000
Area (ha) of plantations weeded	7256	9000	10000
Km of Fire breaks established and maintained	602	700	800
No. of hectares of Forest Plantations thinned and pruned	2906	3500	4000
No. of seedlings raised and sold	19283350	22000000	25000000
Vote 302 - Uganda National Meteorological Authority			
Accounting Officer:	Festus Luboyera		
Programme	53 National Meteorological Services		
Objective	To provide data and information on weather, climate and climate change to support sustainable social and economic development of the economy		
Responsible Officer	Executive Director		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
N / A			
Vote 500 - 501-850 Local Governments			
Accounting Officer:	Respective Local Government Accounting officers		

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Programme	81 Rural Water Supply and Sanitation		
Objective	Provision of cost effective and sustainable Water and Sanitation services and facilities in Rural communities in respective local governments		
Responsible Officer	Accounting Officers in the Respective Local Governments		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
N / A			
Programme	82 Urban Water Supply and Sanitation		
Objective	Improve the quality of service delivery and increasing access and coverage through extension and/or new constructions as well as public point supplies		
Responsible Officer	Director Urban Water Development		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
N / A			
Programme	83 Natural Resources Management		
Objective	To ensure sustainable management of wetlands at all local government level		
Responsible Officer	Director of Environmental Affairs		
Programme Performance Indicators (Output)	2017/18 Target	2018/19 Target	2019/20 Target
N / A			

Sector Investment Plans

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The sector has prioritized the following areas in the allocation of capital investments in the FY 2017/18 among others:

(i) **Greater Kampala Metropolitan Area (GKMA) water and sewerage systems** – rehabilitation and upgrade of the Gaba water works and expansion of the distribution networks to cover the entire GKMA and neighboring areas. Construction of new sewerage treatment plants and rehabilitation of the existing dilapidated lines will be undertaken by NWSC.

(ii) Retooling NEMA for improved capacity on enforcement, ICT Infrastructure, Oil and Gas challenges and restoration of degraded ecosystems.

(iii) Rolling out piped water supply infrastructure development in rural areas through construction of high yielding production wells fitted with solar pumps to replace the current hand-pumped point sources especially in water stressed areas

(iv) Develop urban water supply systems and provide a framework for sustainable operation and maintenance through NWSC, public private partnerships and institutional arrangements.

(v) Develop small and large surface reservoirs as well as very large multi-purpose schemes for water for production to benefit irrigation, industry and municipal water supply systems.

(vi) Develop and implement catchment management plans for integrated and sustainable water resources management at all levels.

(vii) Undertake massive tree planting involving MDAs, Corporates, Private sector, Communities, Schools & Institutions for increased tree cover.

(viii) Demarcate, protect and enforce compliance to sustainable use of vital ecosystems such as wetlands, forest reserves, riverbanks and lake shores involving all the institutions of government and others such as cultural institutions, among others.

(ix) Enhanced monitoring for water quality and quantity through use of modern and automated equipment at all levels.

(x) Acquire modern equipment for meteorological services including strengthening the UNMA with staff and operational equipment.

Table S2.3: Allocations by Class of Output Over the Medium Term

<i>Billion Uganda Shillings</i>	<i>(i) Allocation</i>				<i>(ii) % Sector Budget</i>			
	2016/17	2017/18	2018/19	2019/20	2016/17	2017/18	2018/19	2019/20
Consumption Expenditure (Outputs Provided)	145.407	138.273	155.658	0.000	100.0%	24.0%	24.5%	0.0%
Grants and Subsidies (Outputs Funded)	0.000	6.059	5.230	4.230	0.0%	1.1%	0.8%	1.4%
Investment (Capital Purchases)	0.000	432.002	474.908	303.915	0.0%	75.0%	74.7%	98.6%
Total	145.407	576.335	635.796	308.145				

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S3: Proposed Budget Allocations For FY 2017/18 And the Medium Term Projections

Table S3.1: Past Expenditure Outturns and Medium Term Projections by Programme*

Billion Uganda shillings	FY 2015/16	FY 2016/17		Medium Term Projections				
	Outturn	Approved Budget	Actual Releases by end Q1	2017-18	2018-19	2019-20	2020-21	2021-22
Vote :019 Ministry of Water and Environment								
Programme: 01 Rural Water Supply and Sanitation	50.679	92.950	21.111	81.854	88.892	76.309	82.312	122.612
Programme: 02 Urban Water Supply and Sanitation	154.132	289.102	52.832	239.446	254.644	144.736	142.916	185.960
Programme: 03 Water for Production	33.917	47.497	17.072	86.712	116.647	142.396	149.875	333.613
Programme: 04 Water Resources Management	9.742	44.536	2.060	30.082	35.261	48.141	48.333	99.249
Programme: 05 Natural Resources Management	24.452	83.167	10.186	132.193	139.695	83.693	82.828	123.771
Programme: 06 Weather, Climate and Climate Change	11.009	2.854	0.267	2.846	4.854	9.305	15.605	53.564
Programme: 49 Policy, Planning and Support Services	25.835	30.634	7.503	29.488	27.409	15.191	13.393	23.547
Total for the Vote	309.766	590.740	111.032	602.621	667.403	519.771	535.262	942.316
Vote :122 Kampala Capital City Authority								
Programme: 08 Sanitation and Environmental Services	0.010	0.010	0.000	0.010	0.011	0.012	0.013	0.015
Total for the Vote	0.010	0.010	0.000	0.010	0.011	0.012	0.013	0.015
Vote :150 National Environment Management Authority								
Programme: 51 Environmental Management	6.556	8.971	1.274	8.119	8.798	9.604	10.709	13.365
Total for the Vote	6.556	8.971	1.274	8.119	8.798	9.604	10.709	13.365
Vote :157 National Forestry Authority								
Programme: 52 Forestry Management	14.467	7.459	1.500	7.419	7.987	8.724	9.570	13.090
Total for the Vote	14.467	7.459	1.500	7.419	7.987	8.724	9.570	13.090

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Vote :302 Uganda National Meteorological Authority								
Programme: 53 National Meteorological Services	0.000	22.612	1.395	21.199	24.037	28.169	33.335	60.121
Total for the Vote	0.000	22.612	1.395	21.199	24.037	28.169	33.335	60.121
Vote :500 501-850 Local Governments								
Programme: 81 Rural Water Supply and Sanitation	0.000	56.472	12.993	56.472	64.268	76.221	89.266	176.232
Programme: 82 Urban Water Supply and Sanitation	0.000	2.500	0.625	2.500	2.500	2.500	3.500	4.100
Programme: 83 Natural Resources Management	0.000	0.790	0.198	0.790	1.569	2.426	4.140	4.266
Total for the Vote	0.000	59.762	13.816	59.762	68.337	81.147	96.906	184.597
Total for the Sector	330.799	689.554	129.016	699.130	776.573	647.427	685.795	1,213.505

Table S3.2: Major Changes in Sector Resource Allocation

Major changes in resource allocation over and above the previous financial year	Justification for proposed Changes in Expenditure and Outputs	
Vote: 019 Ministry of Water and Environment		
<i>Programme : 01 Rural Water Supply and Sanitation</i>		
Output: 01 Back up support for O & M of Rural Water		
<i>Change in Allocation (US\$ Bn) :</i>	(2.220)	Reduction in donor funding as well as reallocation of resources from backup support for O&M to constructions
Output: 03 Promotion of sanitation and hygiene education		
<i>Change in Allocation (US\$ Bn) :</i>	(5.060)	Reduction in donor funding as well as reallocation of resources from promotion of sanitation and hygiene
Output: 04 Research and development of appropriate water and sanitation technologies		
<i>Change in Allocation (US\$ Bn) :</i>	(5.000)	Reduction in donor funding
Output: 05 Monitoring and capacity building of LGs,NGOs and CBOs		
<i>Change in Allocation (US\$ Bn) :</i>	(0.387)	Reduction in donor funding
Output: 53 Kahama Gravity Water Scheme		
<i>Change in Allocation (US\$ Bn) :</i>	(0.600)	Completed construction of Kahama GFS
Output: 81 Construction of Point Water Sources		
<i>Change in Allocation (US\$ Bn) :</i>	(2.000)	Re-allocation of funds to construction of GFSs and piped water systems
<i>Programme : 02 Urban Water Supply and Sanitation</i>		
Output: 01 Administration and Management Support		

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<i>Change in Allocation (US\$ Bn) :</i>	1.857	Payment of contract staff previously supported under the donor component
Output: 02 Policies, Plans, standards and regulations developed		
<i>Change in Allocation (US\$ Bn) :</i>	1.029	The increment is for payment for consultancy services for preparation of policies, plans standards and regulations
Output: 04 Backup support for Operation and Maintenance		
<i>Change in Allocation (US\$ Bn) :</i>	7.481	The increment is for payment for consultancy services for feasibility studies and surveys under the vote programme
Output: 06 Monitoring, Supervision, Capacity building for Urban Authorities and Private Operators		
<i>Change in Allocation (US\$ Bn) :</i>	1.933	The change in resource allocation is for increased monitoring, supervision and capacity building for urban authorities
Output: 07 Strengthening Urban Water Regulation		
<i>Change in Allocation (US\$ Bn) :</i>	(0.358)	The reduction in resource allocation is due to the wind up of the donor component under EU which closes by the end of the FY 2016-17
Output: 71 Acquisition of Land by Government		
<i>Change in Allocation (US\$ Bn) :</i>	0.550	The increment is for payment for compensation of land for water infrastructure
Output: 72 Government Buildings and Administrative Infrastructure		
<i>Change in Allocation (US\$ Bn) :</i>	0.350	The increment in resource allocation is for completion of the Water and Sanitation Development Facility Offices
Output: 75 Purchase of Motor Vehicles and Other Transport Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	(0.836)	The reduction is due completion of payment of some vehicle deliveries under the programme
Output: 81 Energy installation for pumped water supply schemes		
<i>Change in Allocation (US\$ Bn) :</i>	0.831	The increase in resource allocation is for purchase of water meters and payment for consultancy services
Output: 82 Construction of Sanitation Facilities (Urban)		
<i>Change in Allocation (US\$ Bn) :</i>	(22.353)	The reduction in resource allocation is due the wind up of most projects previously funded under the donor component in the Water and Development Facilities
<i>Programme : 03 Water for Production</i>		
Output: 02 Administration and Management Support		
<i>Change in Allocation (US\$ Bn) :</i>	0.627	Increased costs due to increased construction units
Output: 71 Acquisition of Land by Government		
<i>Change in Allocation (US\$ Bn) :</i>	(0.120)	less amount expected to be spent on land acquisition due to less facilities to be constructed
Output: 75 Purchase of Motor Vehicles and Other Transport Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	0.610	Replacement of old fleet that is obsolete and costly
Output: 76 Purchase of Office and ICT Equipment, including Software		

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<i>Change in Allocation (US\$ Bn) :</i>	(0.140)	less ICT equipment required during the Financial year
Output: 77 Purchase of Specialised Machinery & Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	3.100	Payment of arrears on construction equipment procured
Output: 78 Purchase of Office and Residential Furniture and Fittings		
<i>Change in Allocation (US\$ Bn) :</i>	(0.219)	less office and residential furniture required during the Financial year
Output: 80 Construction of Bulk Water Supply Schemes		
<i>Change in Allocation (US\$ Bn) :</i>	(2.936)	Allocation due to the available funding and competing priorities
Output: 81 Construction of Water Surface Reservoirs		
<i>Change in Allocation (US\$ Bn) :</i>	(8.535)	Allocation due to the available funding and competing priorities
<i>Programme : 04 Water Resources Management</i>		
Output: 01 Administration and Management support		
<i>Change in Allocation (US\$ Bn) :</i>	(4.018)	Less funds allocated to administrative costs due to competing priorities
Output: 02 Uganda's interests in transboundary water resources secured		
<i>Change in Allocation (US\$ Bn) :</i>	2.715	More allocation to the new Department for trans boundary activities
Output: 03 Water resources availability regularly monitored and assessed		
<i>Change in Allocation (US\$ Bn) :</i>	(12.153)	Funds re-allocated to other priorities
Output: 04 The quality of water resources regularly monitored and assessed		
<i>Change in Allocation (US\$ Bn) :</i>	(1.407)	Some outputs were completed and priority given to other outputs
Output: 06 Catchment-based IWRM established		
<i>Change in Allocation (US\$ Bn) :</i>	(4.300)	Catchment management plans prepared in most water management zones less is expected this year
Output: 51 Degraded watersheds restored and conserved		
<i>Change in Allocation (US\$ Bn) :</i>	(4.042)	Reduction in the budget allocations to the various sub programs
Output: 71 Acquisition of Land by Government		
<i>Change in Allocation (US\$ Bn) :</i>	1.950	planned acquisition of land for restoration of degraded areas in the catchments.
Output: 72 Government Buildings and Administrative Infrastructure		
<i>Change in Allocation (US\$ Bn) :</i>	6.284	Infrastructure investments under the new projects eg LEAF and WMZ regional office block constructions
Output: 77 Purchase of Specialised Machinery & Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	0.441	Planned equipment acquisition under the new project LEAF II
Output: 78 Purchase of Office and Residential Furniture and Fittings		

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<i>Change in Allocation (US\$ Bn) :</i>	0.534	
<i>Programme : 05 Natural Resources Management</i>		
Output: 02 Restoration of degraded and Protection of ecosystems		
<i>Change in Allocation (US\$ Bn) :</i>	1.350	The increment is to cater for demarcation of wetland boundaries, restoration of degraded wetlands and promote measures that reduce vulnerability to climate change.
Output: 03 Policy, Planning, Legal and Institutional Framework.		
<i>Change in Allocation (US\$ Bn) :</i>	(0.738)	Policy reviews are in final stages of completion; thus, re-allocated to other key program outputs such as promotion of natural resources knowledge and restoration of degraded eco-systems.
Output: 04 Coordination, Monitoring, Inspection, Mobilisation and Supervision.		
<i>Change in Allocation (US\$ Bn) :</i>	3.073	Increment is for increased compliance monitoring, supervision and patrol to protect and enhance natural re-generation of degraded eco-system for future generations.
Output: 05 Capacity building and Technical back-stopping.		
<i>Change in Allocation (US\$ Bn) :</i>	5.900	The increment is to build capacity of staff in the Environment Natural Resource sub sector in wetland restoration techniques; wetland; Oil and Gas monitoring.
Output: 72 Government Buildings and Administrative Infrastructure		
<i>Change in Allocation (US\$ Bn) :</i>	19.575	The increment is for capital investment in construction of irrigation schemes; completion of 2 RAMSAR site Information and Education Centers at Lutembe and Nakuwa wetlands.
Output: 75 Purchase of Motor Vehicles and Other Transport Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	(2.503)	The resources were shifted to infrastructure development under the programme.
Output: 76 Purchase of Office and ICT Equipment, including Software		
<i>Change in Allocation (US\$ Bn) :</i>	(0.126)	The resources were shifted to infrastructure development under the programme.
Output: 77 Purchase of Specialised Machinery & Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	2.409	Consultancy services for establishment of more irrigation scheme under FIEFOC project.
Output: 78 Purchase of Office and Residential Furniture and Fittings		
<i>Change in Allocation (US\$ Bn) :</i>	(0.022)	The resources were shifted to infrastructure development under the programme
Output: 79 Acquisition of Other Capital Assets		
<i>Change in Allocation (US\$ Bn) :</i>	1.579	The increment is for purchase of seedlings under the FIEFOC phase II
<i>Programme : 06 Weather, Climate and Climate Change</i>		
Output: 01 Weather and Climate services		

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<i>Change in Allocation (US\$ Bn) :</i>	(0.536)	To improve the collection , analysis, dissemination and use of climate change information for effective decision making. To build the CCD capacity for Monitoring reporting and verification
Output: 03 Administration and Management Support		
<i>Change in Allocation (US\$ Bn) :</i>	0.305	To fully operationalise the CCD staffing structure and facilitate it to fulfill its mandate
Output: 06 Strengthening institutional and coordination capacity		
<i>Change in Allocation (US\$ Bn) :</i>	0.136	To improve the ability of Uganda to implement both national and international climate change obligations
Output: 75 Purchase of Motor Vehicles and Other Transport Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	0.125	To purchase at least one new vehicle for departmental activities
<i>Programme : 49 Policy, Planning and Support Services</i>		
Output: 01 Policy, Planning, Budgeting and Monitoring.		
<i>Change in Allocation (US\$ Bn) :</i>	1.614	The increment is for procurement of consultant for preparation of the Sector Investment Plan for Water and Environment
Output: 02 Ministerial and Top management services.		
<i>Change in Allocation (US\$ Bn) :</i>	1.669	Support for management services
Output: 19 Human Resource Management Services		
<i>Change in Allocation (US\$ Bn) :</i>	0.010	the increment is to support the implementation of Human Resources Management services like recruitment and capacity building
Output: 20 Records Management Services		
<i>Change in Allocation (US\$ Bn) :</i>	0.005	Improve the records management system as well develop data base for record keeping
Output: 72 Government Buildings and Administrative Infrastructure		
<i>Change in Allocation (US\$ Bn) :</i>	(4.979)	completion of construction of the ministry Office block and regional centres
Output: 75 Purchase of Motor Vehicles and Other Transport Equipment		
<i>Change in Allocation (US\$ Bn) :</i>	0.690	purchase of new field work vehicles to replace the old fleet that have been boarded off
Output: 76 Purchase of Office and ICT Equipment, including Software		
<i>Change in Allocation (US\$ Bn) :</i>	0.800	Purchase of new ICT Equipment (new ministry server) to accommodate all the directorates
Vote: 150 National Environment Management Authority		
<i>Programme : 51 Environmental Management</i>		
Output: 01 Integration of ENR Management at National and Local Government levels		
<i>Change in Allocation (US\$ Bn) :</i>	(0.105)	These funds have been reallocated to Key output 2. The reforms in EIA reviews and other NEMA operations as directed by Government has guided this reallocation

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Output: 03 Access to environmental information/education and public participation increased		
Change in Allocation (US\$ Bn) :	0.081	.
Output: 75 Purchase of Motor Vehicles and Other Transport Equipment		
Change in Allocation (US\$ Bn) :	(0.340)	NEMA already bought a few vehicles
Output: 77 Purchase of Specialised Machinery & Equipment		
Change in Allocation (US\$ Bn) :	0.275	GIS and monitoring equipment will ne procured this year
Output: 78 Purchase of Office and Residential Furniture and Fittings		
Change in Allocation (US\$ Bn) :	(0.010)	.
Vote: 157 National Forestry Authority		
Programme : 52 Forestry Management		
Output: 02 Establishment of new tree plantations		
Change in Allocation (US\$ Bn) :	0.033	Information not provided preceeding year
Output: 03 Plantation Management		
Change in Allocation (US\$ Bn) :	0.009	Information not provided preceeding year
Vote: 302 Uganda National Meteorological Authority		
Programme : 53 National Meteorological Services		
Output: 01 Weather and Climate services		
Change in Allocation (US\$ Bn) :	2.215	there is need increase functionality of network stations across the stations do money more allocated to deliver this output
Output: 02 Administration and management support		
Change in Allocation (US\$ Bn) :	(2.782)	reduction for operational expenditures
Output: 51 National Meteorological Training School (NMTS)		
Change in Allocation (US\$ Bn) :	0.120	Subvention money for National Meteorological Training School
Output: 72 Government Buildings and Administrative Infrastructure		
Change in Allocation (US\$ Bn) :	0.154	more renovations at network stations and operationalisation of 5 zonal offices to be carried out
Output: 75 Purchase of Motor Vehicles and Other Transport Equipment		
Change in Allocation (US\$ Bn) :	0.300	purchase for a vehicle fitted with a beacon for the weather radar maintenance plus 3 pickups procured
Output: 76 Purchase of Office and ICT Equipment, including Software		
Change in Allocation (US\$ Bn) :	0.176	procurement of more computers ,printers and photocopiers
Output: 78 Purchase of Office and Residential Furniture and Fittings		
Change in Allocation (US\$ Bn) :	0.114	purchase of furniture for the 5 zonal offices to be operationalised

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S4 :Unfunded Outputs for 2017/18 and the Medium Term

Table S4.1: Additional Output Funding Requests

Additional requirements for funding and outputs in 2017-2018	Justification of requirement for additional outputs and funding
<i>Vote: 019 Ministry of Water and Environment</i>	
<i>Programme : 01 Rural Water Supply and Sanitation</i>	
Output: 80 Construction of Piped Water Supply Systems (Rural)	
<i>Funding requirement US\$ Bn : 90.000</i>	Increase access to clean and safe water from the current 65% to 79 % in rural areas within a radius of 1Km with the aim of providing water source in every village.
<i>Programme : 02 Urban Water Supply and Sanitation</i>	
Output: 80 Construction of Piped Water Supply Systems (Urban)	
<i>Funding requirement US\$ Bn : 65.000</i>	Increase access to clean and safe water from the current 77% to 100 % in urban areas by increasing piped water coverage in both small and big towns. Through construction of Supply and Sewerage Systems to 25 Industrial Parks (Existing and Planned).
<i>Programme : 03 Water for Production</i>	
Output: 81 Construction of Water Surface Reservoirs	
<i>Funding requirement US\$ Bn : 75.920</i>	Improve access to Water for Production and increase cumulative storage from the current 27.8MCM to 55MCM for multipurpose use, including; irrigation, livestock, aquaculture and rural industries through construction and rehabilitation of large and small water reservoirs.
<i>Programme : 04 Water Resources Management</i>	
Output: 04 The quality of water resources regularly monitored and assessed	
<i>Funding requirement US\$ Bn : 50.000</i>	Negative impacts of pollution include water borne diseases such as typhoid and cholera, increased cases of some forms of cancer, increased cost of treating drinking water, emergence of water weeds such as algae, water hyacinth, salvinia molesta, reduced fisheries, impaired water transport etc
<i>Programme : 05 Natural Resources Management</i>	
Output: 02 Restoration of degraded and Protection of ecosystems	
<i>Funding requirement US\$ Bn : 8.000</i>	Increase the country's wetlands cover from 10.9% to 12% through restoration and demarcation of wetlands
<i>Vote: 150 National Environment Management Authority</i>	
<i>Programme : 51 Environmental Management</i>	
Output: 02 Environmental compliance and enforcement of the law, regulations and standards	

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<p><i>Funding requirement US\$ Bn : 10.500</i></p>	<p>Key environmental resources are increasingly being degraded despite presence of Government Institutions. This is majorly due to limited capacity to enforce environment laws. However, NDPII page 170 provides for restoration and maintenance of the integrity and functionality of degraded fragile ecosystems. These include among others wetlands, hilltops, river banks and lake shores.</p>
<p>Output: 04 The institutional capacity of NEMA and its partners enhanced</p>	
<p><i>Funding requirement US\$ Bn : 16.950</i></p>	<p>Environmental Management is a decentralized function. Local Governments are meant to execute environmental management through monitoring and supervision and enforcement activities which require funds, also the NEMA regional offices which are required to bring NEMA services closer to the people in the regions and enhance environmental management and sustainable use of natural resources as in NDPII.</p>
<p>Vote: 157 National Forestry Authority</p>	
<p><i>Programme : 52 Forestry Management</i></p>	
<p>Output: 01 Mangement of Central Forest Reserves</p>	
<p><i>Funding requirement US\$ Bn : 13.200</i></p>	<p>Resurvey and marking of Central Forest Reserves boundaries with pillars will promote integrity of CFRs, discourage encroachment promote forest regeneration and contribute to increased forest cover</p>
<p>Output: 05 Supply of seeds and seedlings</p>	
<p><i>Funding requirement US\$ Bn : 5.000</i></p>	<p>In order to achieve the NDPII target of 18% forest cover, the country needs to have a forested area of 2,335,000 ha by end of FY 2019/20. This means that from 2017/18 to 2019/20, deforestation has to be halted and an annual reforestation/ restoration rate of 575,000 ha be implemented with 502,500 ha on private land, 40,600 ha on CFRs and 31, 800ha on Wildlife and National Parks. This translates into an annually rate of planting of 800,000 ha requiring about 800 million annually.</p>
<p>Vote: 302 Uganda National Meteorological Authority</p>	
<p><i>Programme : 53 National Meteorological Services</i></p>	
<p>Output: 02 Administration and management support</p>	
<p><i>Funding requirement US\$ Bn : 5.260</i></p>	<p>UNMA wage bill is 6.2736 bn whereas only UGX. 1.014bn is provided as per the wage MTEF hence a shortfall off 5.26bn yet there is need to improve the coverage and functionality of network stations and it inevitably requires adequate personnel to manage the network infrastructure inputs, processes and outputs so as to provide accurate, reliable and timely weather and climate information for national development</p>