

Section 3: Water and Environment Sector

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*

Table S1.1 and Chart S1.1 below summarises the Medium Term Budget allocations for the Sector:

Table S1.1: Overview of Sector Expenditures (US\$ Billion, excluding taxes and arrears)

	2014/15 Outturn	2015/16		MTEF Budget Projections			
		Approved Budget	Spent by End Sept	2016/17	2017/18	2018/19	
Recurrent	Wage	6.805	14.531	3.365	14.531	15.258	16.021
	Non Wage	24.971	34.889	7.244	34.889	32.142	37.928
Development	GoU	193.535	229.007	48.758	226.906	272.287	313.130
	Ext. Fin.	36.767	233.276	54.707	243.593	21.770	10.564
GoU Total		225.311	278.427	59.368	276.326	319.687	367.078
Total GoU+Ext Fin. (MTEF)		262.077	511.703	114.075	519.919	341.457	377.643
<i>Non Tax Revenue</i>		<i>0.000</i>	<i>29.219</i>	<i>3.664</i>	<i>32.399</i>	<i>36.683</i>	<i>22.177</i>
Grand Total		262.077	540.922	117.739	552.317	378.140	399.820

* Excluding Taxes and Arrears

(ii) Sector Contributions to the National Development Plan

The sector contribution to NDP2 is viewed through three broad sector outcomes as outlines below:

Sector Outcome 1: Improved access to quality safe water and sanitation facilities for rural, urban and water for production uses

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

Strategies and the accompanying priority interventions to accomplish the above include; Construct, maintain and operate the water supply systems in rural and urban areas; Improve functionality of water supply systems; Reduce unaccounted for water in NWSC systems in Greater Kampala Metropolitan Area (GKMA); Promote good sanitation and hygiene practices in households, communities and rural growth centres and urban areas; improve the policy, legal and regulatory framework; Strengthen the institutional structures and systems; Enhance the involvement of private sector players in water infrastructure development and provision of water services; Construct valley dams and valley tanks and set up reliable O&M structures and systems; Equip the existing valley dams/tanks to facilitate easy livestock watering; Build capacity of the private sector players to construct and maintain valley dams/tanks; provide water for production supply systems to key industrial areas; increase water supply for multi-purpose use in water stressed areas of the country; Construct bulk water supply schemes.

Sector Outcome 2: Improved Water Resources Assessment, Monitoring, Planning, Regulation and Quality Management

The main NDP2 objective in this area is to: ensure that Uganda fully utilizes its water resources for development and guarantees her water security; ensure sustainable utilization of water resources to

Section 3: Water and Environment Sector

maximize benefits for the present and future generations; support the sustainable use of water resources for economic activities

The NDP2 strategies and priority interventions to accomplish the above include: Promote cooperation for equitable and sustainable utilization of shared water resources of the Nile and Lake Victoria Basins; Monitor the quantity and quality of water resources in the country; foster partnerships with relevant agencies to ensure proper use and protection of catchments to minimize degradation of water resources; cost effective planning and development of water resources; strengthen the national data and Management Information System (MIS) for water resources management and development; decentralize the management of water resources to the lowest appropriate scientific level (water management zones, catchments and or basins); Strengthen national and regional capacity for water quality analysis; improve regulation and management procedures of large and small hydraulic works; strengthen the management and use of water reservoirs for fisheries, hydropower and lake transport; strengthen regulation of water use and waste water discharge to safeguard the water resources from over exploitation and pollution; promote use of water resources to increase the per capita withdraw target.

Sector Outcome 3:-Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources

The NDP2 objective in the environment sub-sector is to: ensure sustainable management of the environment for livelihood security, wealth creation and sustained economic growth. The above is to be achieved by undertaking strategies and priority interventions to: protect and restore forest cover in degraded natural forests in forest reserves and private forests so as to reduce pressure on forest cover as a source of wood fuel and wood construction material; promote forestry-based industries and trade; restore degraded ecosystems (wetlands, forests, range lands and catchments) to appropriate levels; ensure sustainable management of environmental resources and minimize degradation; identify and address emerging environmental issues and opportunities; develop national capacity for coordination and implementation of climate change adaptation and mitigation activities in the country in support of social welfare and national development; ensure climate proof development planning; promote low carbon economic development path; provide modern meteorological services to effectively and efficiently support the various sectors of the economy; Enhance the sustainable use of wetlands in order to achieve the optimum, ecological value and socio-economic benefits for development

Specifically the activities to be undertaken include among others: Re-forestate and afforestate forest reserves including those in national parks and game reserves; greening along and around public infrastructure and establishments; promotion of commercial tree-planting on private land; increase involvement of the population in tree planting; Support R&D in development of new high-yield and appropriate tree varieties; Strengthening the capacity of relevant sector institutions to effectively enforce forest and environmental laws and regulations; Improve low stocked natural forests using the landscape approach; prepare and implement the national REDD+ strategy and activities at national level; promote efficient use of timber in the construction and furniture industries; regulating forestry activity on private land in line with the land use policy; promote forest habitat-based livelihoods and products; promote Eco-tourism. Other strategies include: restore of wetlands, rangelands and monitor restoration of all eco systems; conserve the biodiversity value of wetlands; enhance the ecological value of wetlands; ensure sustainable use of wetlands for economic purposes; support environmental improvement initiatives; integrate environmental concerns in all development initiatives; strengthen the policy, legal and institutional framework to support environmental, laws, regulation and management; increase and enhance access to environmental information for investment and environmental management; sustainable management of chemicals, Oil and Gas resources; provide and promote incentives for clean development. Of particular concern in the need to implement the Climate Change Convention; create awareness and promote use of meteorological services; strengthen the policy, legal and institutional framework for

Section 3: Water and Environment Sector

meteorological services including the operationalization of the Uganda National Meteorological Authority (UNMA).

(iii) Medium Term Sector Policy Objectives

The sector objectives which guide medium term outputs and resource allocations are:

- 1. To provide safe water within easy reach and hygienic sanitation facilities, based on management responsibility and ownership by users, to 90% of the population in rural areas and 100% of the urban population by the year 2020 with an 90%-100% effective use and functionality of facilities.*
- 2. To provide viable urban water supply and sewerage/sanitation Systems for domestic, industrial and commercial uses.*
- 3. To develop water supply for production/multi-purpose use for socio-economic development, modernise agriculture and mitigate effects of climatic change.*
- 4. To promote coordinated, intergrated and sustainable water resources management activities to ensure balanced conservation of water resources and provision of water of adequate quantity and quality for all social and economic activities.*
- 5. To empower communities to sustainably harness/Use Natural Resources.*
- 6. To attain and maintain a clean, healthy and productive environment.*
- 7. To increase the productivity of the natural resources base.*

(iv) Summary of Sector Performance

The status of the sector in terms of its three priority sector outcomes is set out below:

Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses

Under Sector Outcome I, (Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses), the following has been realized, On Cumulative water for production (wfp) storage capacity has increased from 17 MCM

Outcome 2: Improved Water Resources Assessment, Monitoring, Planning, Regulation and Quality Management

Under Sector Outcome II, (Improved water resources assessment, monitoring, planning, regulation and quality management), the following has been realized, the percentage of permit holders complying with permit conditions for water of permit holders monitor

Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources

Under Sector Outcome III, (Improved weather, climate and climate change management, protection and restoration of Environment and natural resources), the following has been realized The percentage of Uganda land area covered by wetlands and forests (tree)

S2: Sector Performance and Plans to Improve Sector Outcomes

This section describes past performance and plans to improve sector outcomes. For each outcome it sets out outcome indicators, key sector outputs and actions to improve sector performance. It then sets out analysis of the efficiency of sector allocations and major capital investments.

(i) Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses

Status of Sector Outcomes

Section 3: Water and Environment Sector

The table below sets out the status of sector outcomes in terms of key sector outcome indicators.

Table S2.1: Sector Outcome Indicators

<i>Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses</i>			
Outcome and Outcome Indicator	Baseline	2016/17 Target	Medium Term Forecast
Cumulative water for production (wfp) storage capacity (Million Cubic Metres MCM)*	17 (2007/08)	29	30 (2016/17)
% of people within 1.0km (rural) of an improved water source.	63 (2007/08)	77	100 (2016/17)
% of municipal solid waste that is disposed of safely	65 (2007/08)	70	75 (2016/17)
% of people with 0.2Km (urban) of an improved water source.	61 (2007/08)	100	100 (2016/17)

Table S2.2: Performance Targets FY2016/17 Contributing to the Sector Outcome*

<i>Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses</i>			
<i>Vote, Vote Function Key Output</i>	<i>Approved Budget and Targets</i>	<i>2015/16 Spending and Targets Achieved by End Sept</i>	<i>2016/17 Proposed Budget and Planned Targets</i>
Vote: 019 Ministry of Water and Environment			
<i>Vote Function:0901 Rural Water Supply and Sanitation</i>			
Output:090103	Promotion of sanitation and hygiene education		
<i>Performance Indicators:</i>			
No. of national sanitation and hygiene campaigns undertaken**	8	0	30
No. of LG staff trained in Sanitation and Hygiene	130	0	130
<i>Output Cost (US\$ bn):</i>	<i>0.677</i>	<i>0.105</i>	<i>0.622</i>
Output:090180	Construction of Piped Water Supply Systems (Rural)		
<i>Performance Indicators:</i>			
No. of piped water systems/GFS constructed in rural areas**	4	3	15
No. of piped water supply systems designed **	7	0	12
<i>Output Cost (US\$ bn):</i>	<i>45.399</i>	<i>3.187</i>	<i>72.265</i>
Output:090181	Construction of Point Water Sources		
<i>Performance Indicators:</i>			
No. of LG staff trained on Operations and Maintenance	85	130	100
No. boreholes constructed	120	31	270
<i>Output Cost (US\$ bn):</i>	<i>7.366</i>	<i>1.647</i>	<i>6.500</i>
Output:090182	Construction of Sanitation Facilities (Rural)		
<i>Performance Indicators:</i>			
No. of sanitation facilities constructed (Household and Public)	6	6	0
<i>Output Cost (US\$ bn):</i>	<i>0.072</i>	<i>0.016</i>	<i>0.000</i>
<i>Vote Function:0902 Urban Water Supply and Sanitation</i>			
Output:090204	Backup support for Operation and Maintenance		
<i>Performance Indicators:</i>			
No of schemes supported in operation and maintained	40	23	30

Section 3: Water and Environment Sector

<i>Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Targets	2015/16 Spending and Targets Achieved by End Sept	2016/17 Proposed Budget and Planned Targets
<i>Output Cost (US\$ bn):</i>	1.109	0.320	1.496
Output: 090205	Improved sanitation services and hygiene		
<i>Performance Indicators:</i>			
No. of masons trained in construction of sanitation facilities	140	39	77
No. of hygiene promotion campaigns (Urban) undertaken	60	26	41
<i>Output Cost (US\$ bn):</i>	2.785	0.238	2.542
Output: 090206	Monitoring, Supervision, Capacity building for Urban Authorities and Private Operators		
<i>Performance Indicators:</i>			
Percentage of piped water supply systems functional	0	0	90
Number of schemes operational and maintained	0	378	19
<i>Output Cost (US\$ bn):</i>	3.134	0.553	3.318
Output: 090207	Strengthening Urban Water Regulation		
<i>Output Cost (US\$ bn):</i>	0.000	0.000	0.400
Output: 090280	Construction of Piped Water Supply Systems (Urban)		
<i>Performance Indicators:</i>			
No. of sewage connections made*	1	00	1
No. of piped water supply systems under construction in urban areas**	59	33	59
No. of piped water supply systems designed **	30	23	30
<i>Output Cost (US\$ bn):</i>	139.225	31.157	127.198
Output: 090281	Energy installation for pumped water supply schemes		
<i>Performance Indicators:</i>			
No. of energy packages for pumped water schemes installed	13	03	13
<i>Output Cost (US\$ bn):</i>	3.235	0.095	2.081
Output: 090282	Construction of Sanitation Facilities (Urban)		
<i>Performance Indicators:</i>			
No. of sanitation facilities constructed (Household, Public and faecal sludge management)	180	63	147
<i>Output Cost (US\$ bn):</i>	46.610	29.605	35.069
<i>Vote Function: 0903 Water for Production</i>			
Output: 090306	Sustainable Water for Production management systems established		
<i>Performance Indicators:</i>			
No. of water management committees formed and	15	13	16

Section 3: Water and Environment Sector

<i>Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Targets	2015/16 Spending and Targets Achieved by End Sept	2016/17 Proposed Budget and Planned Targets
trained			
<i>Output Cost (US\$ bn):</i>	1.890	0.583	1.214
Output: 090380	Construction of Bulk Water Supply Schemes		
<i>Performance Indicators:</i>			
Number of animals accessing water from the constructed facilities		0	0
No. of Bulk Water supply systems designed		0	0
No. of Bulk Water supply systems constructed	1	0	0
KM of transmission main laid		0	0
Acreage of irrigation land provided with water		0	0
<i>Output Cost (US\$ bn):</i>	0.000	0.000	5.500
Output: 090381	Construction of Water Surface Reservoirs		
<i>Performance Indicators:</i>			
Number of Valley Tanks Constructed		38	30
Number of Dams designed		10	10
Number of Dams Constructed	6	3	7
Number of animals accessing water from the constructed facilities		0	0
KM of transmission main laid		0	0
Acreage of irrigation land provided with water		0	0
<i>Output Cost (US\$ bn):</i>	36.422	5.793	32.222

* Excludes taxes and arrears

Table S2.3: Actions and Medium Term Strategy to Improve Sector Outcome

<i>Sector Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses</i>			
2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
Vote: 019 Ministry of Water and Environment			
Vote Function: 09 01 Rural Water Supply and Sanitation			
Procure specialised equipment to respond to emergency borehole rehabilitation at the centre. Promote latrine construction together with handwashing with soap.		carryout handwashing awareness campaigns in all the regions	carryout handwashing awareness campaigns in all the regions
Gradually roll out to provide piped water systems to rural areas in a new paradigm shift to replace the simple borehole/handpump technology which often gets surpassed/overwhelmed by population growth. Procure		Strengthen water and sanitation coordination committees in districts Benchmarking best practices and recognition of best WUCs through competition Increasing technical backup support through TSUs and	Strengthen water and sanitation coordination committees in districts Benchmarking best practices and recognition of best WUCs through competition Increasing technical backup support through TSUs and

Section 3: Water and Environment Sector

<i>Sector Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses</i>			
2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
specialised drilling equipment at the centre		WMZ and facilities	WMZ and facilities
Review the entire CBMS and improve on the availability of spare parts, monitor the quality of construction of facilities for compliance to BoQs, involve communities in planning and design of facilities	The HPMA concept and the setting up of spare parts shops have been rolled out in 30 districts in Northern Uganda. Strategy on quality control of pipe material imports agreed upon with UNBS	Review the entire CBMS and improve on the availability of spare parts, monitor the quality of construction of facilities for compliance to BoQs, involve communities in planning and design of facilities	Continue with monitoring of the quality of construction of facilities for compliance to BoQs, involve communities in planning and design of facilities
Vote Function: 09 02 Urban Water Supply and Sanitation			
The Regulation Unit will be strengthened through training, appointment of addition staff and acquisition of regulatory tools to ensure effective regulation of the water and sewerage services and the implementation of the pro-poor strategy.		Enact a Law establishing a regulatory Authority for Water and Sanitation	Enact a Law establishing a regulatory Authority for Water and Sanitation
Rehabilitation of water supply and sewerage facilities to restore functionality. Solar powered pumps will be installed where feasible and capacities of Water Supply Services Boards will be strengthened to improve service delivery.		Development of sludge treatment facilities at regional centres and large towns to facilitate emptying Engage partners to ensure that every school constructed has lined latrine	Development of sludge treatment facilities at regional centres and large towns to facilitate emptying Engage partners to ensure that every school constructed has lined latrine
Business Planning Tool is to be updated to ensure that derived tariffs cover operation & maintenance costs & replacement of components with lifespan of less than ten years. Water Authorities will be closely monitored and supervised		Set up a Utility performance monitoring and information system	Continue with the implementation of the Utility performance monitoring and information system for Urban water
Vote Function: 09 03 Water for Production			
Revitalization of WUCs to ensure effective management of the facilities, Reconstruction and improvement of the abstraction systems and Fencing off of the facilities by using chain link, Rectification of all the defects on the facilities		Involvement of political and cultural leaders in land acquisition. Specific donor requirements for environment and social safeguards (Environmental and Social Impact Assessments and Resettlement Action Plans)	Involvement of political and cultural leaders in land acquisition. Specific donor requirements for environment and social safeguards (Environmental and Social Impact Assessments and Resettlement Action Plans)
Continue with sensitization of all stakeholders to ensure proper handling and management of the WfP facilities.	All stakeholders sensitized to ensure proper handling and management of the facilities.	Continue with sensitization of all stakeholders to ensure proper handling and management of the WfP facilities.	Continue with sensitization of all stakeholders to ensure proper handling and management of the WfP facilities.
strengthen Technical Support Units (TSUs) with WfP personel to support Districts especially in O&M, Finalise development of policy &		Finalization and implementation of National Irrigation Policy Upscaling irrigation system and constructing of dams, bulk	Finalization and implementation of National Irrigation Policy Upscaling irrigation system and constructing of dams, bulk

Section 3: Water and Environment Sector

Sector Outcome 1: Increased access to quality safe water and sanitation facilities for rural, urban and water for production uses

2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
regulatory framework and commence implementation.		water supply systems and intakes from lakes and rivers	water supply systems and intakes from lakes and rivers

(ii) Outcome 2: Improved Water Resources Assessment, Monitoring, Planning, Regulation and Quality Management

Status of Sector Outcomes

The table below sets out the status of sector outcomes in terms of key sector outcome indicators.

Table S2.1: Sector Outcome Indicators

<i>Outcome 2: Improved Water Resources Assessment, Monitoring, Planning, Regulation and Quality Management</i>			
Outcome and Outcome Indicator	Baseline	2016/17 Target	Medium Term Forecast
% of permit holders complying with permit conditions -discharge	65 (2007/08)	75	80 (2016/17)
% of permit holders complying with permit conditions-water abstraction	65 (2007/08)	75	80 (2016/17)
% meteorological rainfall observation network coverage in the country	40 (2012/13)	45	60 (2016/17)

Table S2.2: Performance Targets FY2016/17 Contributing to the Sector Outcome*

<i>Outcome 2: Improved Water Resources Assessment, Monitoring, Planning, Regulation and Quality Management</i>			
Vote, Vote Function Key Output	Approved Budget and Targets	2015/16 Spending and Targets Achieved by End Sept	2016/17 Proposed Budget and Planned Targets
Vote: 019 Ministry of Water and Environment			
<i>Vote Function:0904 Water Resources Management</i>			
Output:090403	Water resources availability regularly monitored and assessed		
<i>Performance Indicators:</i>			
No. of hydrological monitoring stations that are maintained and operational	180	40	130
<i>Output Cost (US\$ bn):</i>	3.486	0.174	12.898
Output:090404	The quality of water resources regularly monitored and assessed		
<i>Performance Indicators:</i>			
Number of permit holders monitored for compliance to permit conditions to permit conditions(water discharge)*	100	20	100
Number of permit holders monitored for compliance to permit conditions to permit conditions(water abstraction)*	100	40	100
<i>Output Cost (US\$ bn):</i>	2.424	0.059	2.232
Output:090405	Water resources rationally planned, allocated and regulated		
<i>Output Cost (US\$ bn):</i>	3.835	0.062	1.886

* Excludes taxes and arrears

Table S2.3: Actions and Medium Term Strategy to Improve Sector Outcome

Sector Outcome 2: Improved Water Resources Assessment, Monitoring, Planning, Regulation and Quality Management

Section 3: Water and Environment Sector

2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
Vote: 019 Ministry of Water and Environment			
Vote Function: 09 04 Water Resources Management			
Upscale implementation of catchment based IWRM, promote implementation of catchment planning and water source protection guidelines .		Implementing the existing pollution strategies Implementing decentralized compact waste water treatment plants in the small towns Rehabilitating critical sewer networks in selected areas Improving national capacity for water & wastewater testing	Implementing the existing pollution strategies Implementing decentralized compact waste water treatment plants in the small towns Rehabilitating critical sewer networks in selected areas Improving national capacity for water & wastewater testing
Improved issuance of waste water discharge permits and compliance monitoring, improved analytical capacity of national and regional laborites, improvement of catchment based WRM, implementation of water source protection guidelines.		Develop and promote water safety plans in all piped water supplies. Implement water source protection guidelines in all water supplies countrywide. Improve hygiene and sanitation practices in water storage and handling	Develop and promote water safety plans in all piped water supplies.Improve hygiene and sanitation practices in water storage and handling
Vote: 157 National Forestry Authority			
Vote Function: 09 52 Forestry Management			
NFA will continue to demonstrate to forest dependent communities the relevance of forests to their livelihoods through Collaborative Forest Management and holding community sensitization meetings in different CFRs across the country.	5 meetings to sensitize local leaders and encroachers residing in the forests of Guramwa, Kasato, Ruzaire and Rwensabya CFR in Kagadi sector to prepare them for eviction which is planned to take place next year after elections. A total of 100 encroachers left voluntarily from the forests mainly from Ruzaire CFR.	NFA will continue to demonstrate to forest dependent communities the relevance of forests to their livelihoods through Collaborative Forest Management and holding community sensitization meetings in different CFRs across the country.	NFA will continue to demonstrate to forest dependent communities the relevance of forests to their livelihoods through Collaborative Forest Management and holding community sensitization meetings in different CFRs across the country.

(iii) Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources

Status of Sector Outcomes

The table below sets out the status of sector outcomes in terms of key sector outcome indicators.

Table S2.1: Sector Outcome Indicators

<i>Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources</i>			
Outcome and Outcome Indicator	Baseline	2016/17 Target	Medium Term Forecast
% of uganda land area covered by wetlands	10 (2007/08)	13	14 (2016/17)
% of uganda land area covered by forests (tree cover)	17 (2007/08)	23	25 (2016/17)

Table S2.2: Performance Targets FY2016/17 Contributing to the Sector Outcome*

<i>Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources</i>			
<i>Vote, Vote Function Key Output</i>	<i>Approved Budget and Targets</i>	<i>2015/16 Spending and Targets Achieved by End Sept</i>	<i>2016/17 Proposed Budget and Planned Targets</i>
Vote: 019 Ministry of Water and Environment			
<i>Vote Function:0905 Natural Resources Management</i>			
Output:090501	Promotion of Knowledge of Enviroment and Natural Resources		
<i>Performance Indicators:</i>			

Section 3: Water and Environment Sector

<i>Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Targets	2015/16 Spending and Targets Achieved by End Sept	2016/17 Proposed Budget and Planned Targets
No. of Natural resources valuation studies undertaken and disseminated	2	0	2
<i>Output Cost (US\$ bn):</i>	0.557	0.119	0.577
Output: 090502	Restoration of degraded and Protection of ecosystems		
<i>Performance Indicators:</i>			
No. of wetlands management plans developed and approved	30	0	30
Length of wetland boundary demarcated (Km)	250	0	150
Area (Ha) of the degraded wetlands reclaimed and protected	150	0	2,500
<i>Output Cost (US\$ bn):</i>	1.881	0.491	2.052
<i>Vote Function: 0906 Weather, Climate and Climate Change</i>			
Output: 090601	Weather and Climate services		
<i>Performance Indicators:</i>			
No. of seasonal forecasts and advisories issued	4	1	4
No. of Weather and Climate Stations maintained and Operational	300	300	300
<i>Output Cost (US\$ bn):</i>	0.001	0.000	0.522
Vote: 150 National Environment Management Authority			
<i>Vote Function: 0951 Environmental Management</i>			
Output: 095102	Environmental compliance and enforcement of the law, regulations and standards		
<i>Performance Indicators:</i>			
No. of environmental inspections and audits carried on facilities and investments	1,200	315	1,360
No. of environmental cases reported to courts of justice	30	47	45
No. of EIA reports concluded	500	214	680
Area (Ha) of degraded Lakeshores and river banks restored	100	.	120
<i>Output Cost (US\$ bn):</i>	0.490	0.062	0.700
Vote: 157 National Forestry Authority			
<i>Vote Function: 0952 Forestry Management</i>			
Output: 095201	Mangement of Central Forest Reserves		
<i>Performance Indicators:</i>			
Distance (Km) of forest boundary resurveyed and marked	277	4	250
Area (Ha) of degraded forests replanted	397	156	400
<i>Output Cost (US\$ bn):</i>	10.251	1.383	15.386

Section 3: Water and Environment Sector

<i>Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Targets	2015/16 Spending and Targets Achieved by End Sept	2016/17 Proposed Budget and Planned Targets
Output:095202	Establishment of new tree plantations		
<i>Performance Indicators:</i>			
Area (ha) of plantations weeded	6008	537.5	6000
Area (ha) of Forest Plantations planted and surviving by National Forestry Authority**	855	75	1290
<i>Output Cost (US\$ bn):</i>	<i>0.959</i>	<i>0.000</i>	<i>1.193</i>
Output:095205	Supply of seeds and seedlings		
<i>Performance Indicators:</i>			
No. of seedlings raised and sold	20418619	7138310	24446000
<i>Output Cost (US\$ bn):</i>	<i>6.514</i>	<i>0.284</i>	<i>5.862</i>

* Excludes taxes and arrears

Table S2.3: Actions and Medium Term Strategy to Improve Sector Outcome

<i>Sector Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources</i>			
2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
Vote: 019 Ministry of Water and Environment			
Vote Function: 09 05 Natural Resources Management			
Review of policies and regulations for environmental management undertaken	In the process of having a wetland management specific law. Review of the National environment Act Cap 153 is ongoing. A functional Wetlands Advisory Group (WAG) was established and it has regular meetings.	Develop and review policies, policy briefs and information packs for environmental management.	Continue to develop and review policies, policy briefs and information packs for environmental management.
Continue with Strengthening collaboration with relevant institutions, recruit staff to beef capacity of existing staff at national district and sub-county levels		Create an environmental court to fast track execution of the environmental cases; Stimulate community policing around the hot spot wetlands; Train and retool more EPP officers & technical officers on environmental law enforcement strategies	Continue with creating an environmental court to fast track execution of the environmental cases; Stimulate community policing around the hot spot wetlands; Train & retool more EPP officers & technical officers on environmental law enforcement strategies
Restoration and protection of critical/ fragile ecosystem	Guidelines for wetland restoration were developed and the first draft reviewed Reactivated 4 Regional Technical Support Units in Mbale, Lira, Wakiso	Strengthen multi-sectoral partnerships and networking arrangements within the Environment and Natural Resources sub-sector for improved natural resources management.	Strengthen multi-sectoral partnerships and networking arrangements within the Environment and Natural Resources sub-sector for improved natural resources management.

Section 3: Water and Environment Sector

<i>Sector Outcome 3: Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources</i>			
2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
	and Mbarara. Trained wetlands management staff in wetlands assessment, enforcement and GIS and trained district officers to produce management and action plans.		
Vote: 150 National Environment Management Authority			
Vote Function: 09 51 Environmental Management			
Strengthen the monitoring of oil and gas activities in the Albertine Graben. Establish the laboratory for oil and Gas. NEMA will also continue maintenance of the 12 composite sites for urban solid waste mangement.	More personnel have been recruited and equipment are under procurement to enhance environment compliance and enforcement within oil and gas region. NEMA has contnued to provide both technical and financial support to sustain the 12 municipal solid waste composting plants. There are ongoing policy and legal reforms to address the emerging issues.	Strengthen the monitoring of oil and gas activities in the Albertine Graben. Establish the laboratory for oil and Gas. NEMA will also continue maintenance of the 12 composite sites for urban solid waste mangement.	Establishment of public-private sector-Civil Society partnerships in the management of emerging environmental issues/challenges
Vote: 157 National Forestry Authority			
Vote Function: 09 52 Forestry Management			
Continued increase of land under forest cover by NFA own planting and private sector planting under license on CFRs	75 hectares of plantations were established in Lendu plantations.	Continued increase of land under forest cover by NFA own planting and private sector planting under license on CFRs.	Continued increase of land under forest cover by NFA own planting and private sector planting under license on CFRs.
Strengthening the Environmental Protection Force to ensure the integrity of CFRs is intact and expansion of collaborative forest management arrangements to more groups.	75 Environmental Protection Force are on ground to ensure that the integrity of CFRs is intact.	Strengthening the Environmental Protection Force to ensure the integrity of CFRs is intact and expansion of collaborative forest management arrangements to more groups.	Strengthening the Environmental Protection Force to ensure the integrity of CFRs is intact and expansion of collaborative forest management arrangements to more groups.

(ii) Efficiency of Sector Budget Allocations

For improved service delivery, the sector has continued to reduce its budgetary allocations to consumptive items and utilize internal capacity as opposed to hiring consultants. Partnerships with the private sector have been promoted and to the extent possible use of framework arrangements for delivery of contracts has been emphasized.

(iii) Sector Investment Plans

Table S2.4: Allocations to Class of Output over the Medium Term

Billion Uganda Shillings	(i) Allocation (Shs Bn)				(ii) % Sector Budget			
	2015/16	2016/17	2017/18	2018/19	2015/16	2016/17	2017/18	2018/19
Consumption Expenditure(Outputs Provided)	110.8	136.8	113.6	99.5	23.4%	28.3%	38.8%	33.0%
Grants and Subsidies (Outputs Funded)	41.4	22.6	1.3	10.2	8.7%	4.7%	0.4%	3.4%
Investment (Capital Purchases)	320.6	324.7	178.1	191.9	67.8%	67.1%	60.8%	63.6%
Grand Total	472.7	484.1	293.0	301.6	100.0%	100.0%	100.0%	100.0%

Section 3: Water and Environment Sector

S3 Proposed Budget Allocations for 2016/17 and the Medium Term

This section sets out the proposed sector budget allocations for 2016/17 and the medium term, including major areas of expenditures and any notable changes in allocations.

Table S3.1: Past Expenditure and Medium Term Projections by Vote Function

	2014/15 Outturn	2015/16		Medium Term Projections		
		Appr. Budget	Spent by End Sept	2016/17	2017/18	2018/19
Vote: 019 Ministry of Water and Environment						
0901 Rural Water Supply and Sanitation	23.974	64.644	8.935	85.766	50.084	60.084
0902 Urban Water Supply and Sanitation	50.479	213.006	64.768	194.575	71.571	70.970
0903 Water for Production	19.481	42.170	7.172	42.242	52.777	61.634
0904 Water Resources Management	5.884	41.539	2.370	37.587	7.713	17.713
0905 Natural Resources Management	21.304	24.876	6.600	26.381	24.963	24.963
0906 Weather, Climate and Climate Change	4.496	14.684	2.976	14.684	3.966	3.966
0949 Policy, Planning and Support Services	14.020	26.041	3.760	33.940	26.871	19.703
Total for Vote:	139.639	426.959	96.581	435.174	237.945	259.032
Vote: 122 Kampala Capital City Authority						
0908 Sanitation and Environmental Services	0.009	13.588	0.000	13.588	16.195	0.013
Total for Vote:	0.009	13.588	0.000	13.588	16.195	0.013
Vote: 150 National Environment Management Authority						
0951 Environmental Management	7.647	9.046	1.788	9.046	10.247	11.539
Total for Vote:	7.647	9.046	1.788	9.046	10.247	11.539
Vote: 157 National Forestry Authority						
0952 Forestry Management	11.286	23.099	5.331	26.279	28.639	30.975
Total for Vote:	11.286	23.099	5.331	26.279	28.639	30.975
Vote: 500 501-850 Local Governments						
0981 Rural Water Supply and Sanitation	62.372	62.372	12.574	62.372	77.613	89.480
0982 Urban Water Supply and Sanitation	1.504	2.504	0.626	2.504	2.629	3.629
0983 Natural Resources Management	2.853	3.353	0.838	3.353	4.872	5.152
Total for Vote:	66.729	68.230	14.039	68.230	85.114	98.261
Total for Sector:	225.311	540.922	117.739	552.317	378.140	399.820

* Excluding Taxes and Arrears and including NTR

(i) The major expenditure allocations in the sector

The Water and Environment sector (09) budget for the FY 16/17 is UGX 511.228bn, UGX 410.610bn for FY 2017/18 and UGX 449.689bn for FY 2018/19 as in the table S3.1 above. The sector breakdown is as follows:-

VOTE 019(Ministry of Water and Environment)

The vote has a total budget of UGX 394.086bn for FY 2016/17, UGX 270.416bn for FY 2017/18 and UGX 308.901bn for FY 2018/19.

Rural Water Supply and Sanitation Services

The allocation under this vote function is Ushs 85.266bn for activities coordinated in the centre, Ushs 2.0bn for the District Sanitation Grant and the District Water Supply Grant is Ushs 62.372bn. It is estimated that an additional 800,000 people will be served by the end of FY 2016/17.

Urban Water supply and sanitation

A total of Ushs 156.290 consisting of Ushs 153.686 bn for the centre under the Directorate of Water Development (DWD) while Ushs 2.504bn is allocated to the Operation and Maintenance subsidy as Conditional Grant to selected Town Councils.

Section 3: Water and Environment Sector

Water for Production

The Vote Function is allocated Ushs 42.442bn to facilitate the purchase of Specialized Machinery and Equipment; Construction of surface water reservoirs.

Water Resources Management

This is allocated Ush 37.587 billion to support integrated water resources management (through the catchments based model) especially complete the establishment of the 4 Water Management Zones countrywide, Trans-boundary water resources management, water resources monitoring and regulation, water quality management as well as the regional initiatives on the Lake Victoria Basin.

Natural Resources Management

The vote function is allocated Ush 29.834 billion in 2016/17 FY to facilitate restoration of degraded ecosystems, through demarcation and gazzement of wetland in 4 critical municipal wetlands areas. Complete rehabilitation of Irrigation scheme for Olweny and payment of the outstanding Certificates of the completed works.

Weather, Climate and Climate Change

The allocation is Shs 14.684bn and it will be used to provide weather and climate forecasts and advisories for all socio-economic needs of the population. Conduct research on climate change, Climate change awareness; Conducting Climate Change baseline surveys and Domestication of the UNFCCC and its KP.

Policy, Planning and Administration vote function

A total of Ush 33.939bn budget is allocated to this vote function and its functions among others are; coordination of all departments in the ministry for compliance with Civil Service standing orders and regulations, sector strategic planning and budgeting, capacity building, legislation, policy and regulation, carrying out Joint Sector Monitoring and Sector Performance Reviews preparation of Ministry Policy Statement (MPS). Additional funding is required for construction of new Ministry Headquarters.

VOTE 122 (Kampala Capital City Authority)

The Vote has a total budget of UGX 13.5886bn for FY 2016/17, UGX 16.195bn for FY 2017/18 and UGX 0.013bn for FY 2018/19

VOTE 150 (NEMA)

The Vote has a total budget of UGX 9.046bn for FY 2016/17, UGX 10.247bn for FY 2017/18 and UGX 11.539bn for FY 2018/19

VOTE 157 (NFA)

The Vote has a total budget of UGX 26.279bn for FY 2016/17, UGX 28.639bn for FY 2017/18 and UGX 30.975bn for FY 2018/19

Table S3.2: Major Changes in Sector Resource Allocation

* Excluding Taxes and Arrears

S4: Unfunded Outputs for 2016/17 and the Medium Term

This section sets out the highest priority outputs in 2016/17 and the medium term which the sector has been unable to fund in its spending plans.

Table S4.1: Additional Output Funding Requests

Additional Requirements for Funding and Outputs in 2016/17	Justification of Requirement for Additional Outputs and Funding
Vote Function: 0980 Rural Water Supply and Sanitation	
Output: 0901 80 Construction of Piped Water Supply Systems (Rural)	

Section 3: Water and Environment Sector

Additional Requirements for Funding and Outputs in 2016/17	Justification of Requirement for Additional Outputs and Funding
<p><i>Funding Requirement (US\$ Bn):</i> Construction of piped water supply schemes (21.351bn)</p>	<p><i>In order to increase service coverage and functionality of the existing water sources, there is an urgent need for specialized equipment for overhauling of boreholes in support of Community Based Management Systems (CBMS).</i></p>
<p>Output: 0901 81 Construction of Point Water Sources <i>Funding Requirement (US\$ Bn):</i> Construction of point water sources</p>	<p><i>This is for rolling out the demonstration programs initiated in all districts for rain water harvesting</i></p>
<p><i>Vote Function:0980 Urban Water Supply and Sanitation</i> Output: 0902 80 Construction of Piped Water Supply Systems (Urban) <i>Funding Requirement (US\$ Bn):</i> 45.000 Administration costs arising from shifting of salaries from Donor to GoU component (for WSDFs) Connection of piped water systems to former IDPs where ERT works have been done (arrears – US\$ 1.0bn) Land compensation requirement under GoU for WMDP-1231(c) (US\$ 1.0bn)</p>	<p><i>for increased and reliable water supply and sewerage/sanitation services in all urban areas to support industrial processes. This will catalyze the push and pull economic effects through establishment of new industries that will create jobs and improve household incomes as well as provide markets for raw materials produced by households. A total of US\$ 45bn may be required annually as additional funds to this vote function to cope up with the requirements</i></p>
<p><i>Vote Function:0981 Water for Production</i> Output: 0903 81 Construction of Water Surface Reservoirs <i>Funding Requirement (US\$ Bn):</i> 60.669 Rehabilitation of old dams in phases countrywide, clear backlog and fast track construction of already designed facilities, strengthening of community management for improved use</p>	<p><i>A total of US\$ 60.669bn additional funds is required under this Vote Function to undertake rehabilitation of old dams in phases countrywide, clear backlog and fast track construction of already designed facilities, strengthening of community management for improved use. This is to enable supplementary irrigation under the Joint Programme Required for specialized equipment for hire by communities.</i></p>
<p><i>Vote Function:0903 Water Resources Management</i> Output: 0904 03 Water resources availability regularly monitored and assessed <i>Funding Requirement (US\$ Bn):</i> 14.670 National Strategy for flood management developed Framework for water quality for SDG monitoring developed Specialized water vessel for L.Albert to operationalize the oil contingency plan procured Laboratory equipment for oil & gas Maintained</p>	<p><i>1.9bn is required for districts in Eastern Uganda, Kasese and other parts of the country that have continued to suffer the loss of lives and investments due to floods. DWQRM plans to develop a National Flood Management Strategy. The strategy will comprise measures for Early Warning, Flood Protection, Flood Prevention, Flood Mitigation and Flood Awareness. Immediate benefits of the strategy will be reduction in death caused by floods, protection of infrastructure such as road networks, bridges, hydropower plants, houses, reduction in water borne diseases and improved livelihoods and increased productivity of communities normally affected by floods</i></p>
	<p><i>The total investment in advanced laboratory equipment for oil & gas, toxic metals, pesticides and microbiology in the department of Water Quality Management now stands at 10 bn. Sustainable management of these pieces of equipment through annual preventive maintenance by authorized representatives of the manufacturers require 200m.</i></p> <p><i>Operationalization of the oil contingency plan for emergency response to oil spills and operating the oil and gas on-line remote sensing set of equipment in L. Albert requires a specialized water vessel. Such a vessel with a capacity to accommodate 4 -6 persons and fitted with equipment such as scan sonar, oil dispersants, bottom profiler, as well as other typical equipment for hydrography and surveys costs approximately 2bn shillings.</i></p> <p><i>The DWQM plans to develop a framework for data collection to monitor the indicator under target 6.3 of the Sustainable Development Goals. A sum of 500m is required to hire a consultant to develop the framework and to initiate implementation of the framework.</i></p>
<p><i>Vote Function:0902 Natural Resources Management</i> Output: 0905 02 Restoration of degraded and Protection of ecosystems <i>Funding Requirement (US\$ Bn):</i> 28.403 support of tree planting of at least 100 million seedlings annually (at least 90,000ha) on public and</p>	<p><i>to promote massive tree planting for increased incomes for households and creation of jobs in industries processing timber and non-timber forest products. A total of US\$ 25bn annually is required in this vote function</i></p>

Section 3: Water and Environment Sector

Additional Requirements for Funding and Outputs in 2016/17	Justification of Requirement for Additional Outputs and Funding
private bare hills, river banks, watersheds	to enable establishment of conditional grant and support other programs from the center. And an additional Ugshs 3.403bn required in support of tree planting of at least 100 million seedlings annually (at least 90,000ha) on public and private bare hills, river banks, watersheds.
<i>Vote Function:0903 Weather, Climate and Climate Change</i>	
Output: 0906 03 Administration and Management Support	
<p><i>Funding Requirement (US\$ Bn):</i> 27.000</p> <p>Procurement of 3 radars each at approximately UGX 9,000,000,000.</p> <p>Establishment of new network stations and rehabilitation of old stations.</p> <p>Salaries and operations of the National Meteorological Training School</p>	<p>Acquisition of transport and other equipment required by the CCU, facilitate the country to attain international certification, wind shear, instrument calibration lab, conventional weather instruments and operationalisation of the approved Agency</p>
<i>Vote Function:0902 Environmental Management</i>	
Output: 0951 02 Environmental compliance and enforcement of the law, regulations and standards	
<p><i>Funding Requirement (US\$ Bn):</i> 4.048</p> <p>The key unfunded priorities for FY 2016/17 include among others; supporting enforcement of environmental compliance, restoration of degraded ecosystems including; lake shores, river banks, rangelands, hilly and mountainous areas, programs on managing new and emerging environment and development challenges including; electronic wastes, chemicals management and biotechnology and biosafety and the effects of climate change as well as supporting the decentralized environment management function at districts and municipal levels and all this will require a funding boost of Shs. 5.6bn to support 112 districts</p>	<p>Support to the implementation of the National Biodiversity Strategy and Action Plan:</p> <p>Promoting the sustainable population and use of the environment and natural resources is one eight objectives of the NDP. The project contributes maintaining a rich biodiversity benefiting the present and future generations for socio-economic development and wealth creation in line with NDP objective. At the sectoral level, the project contributes to the objective of increasing the productivity of the natural resource base and sustainable utilization of biodiversity</p> <p><i>Strengthening the Sound Management of Chemicals in Uganda:</i></p> <p>Misuse of chemicals has also negatively affected the fishing and flower industries as a result of traces of chemicals such as Methyl bromide, mercury, and heavy metals have been found in the fish and flower products. This is definitely a consequence of pollution of water bodies due to poor chemicals management within the catchments areas arising from mainly industrial and agricultural activities in such areas. It has also been reported that worrying health disorders such as the increasing incidence of cancers in the country could be attributed to chemicals-related pollution. In view of the above therefore, there is need for immediate action to regulate and appropriately manage chemicals within the country. This is in line with strategy 3 of objective 3 under environmental management in the NDP.</p> <p><i>Restoration of Lake Victoria Shore Land and its Immediate Catchment Area:</i></p> <p>Lake Victoria, the world's second largest freshwater lake stands as the most critical economic resource that links its three riparian countries of Kenya, Uganda and Tanzania as well as Rwanda and Burundi which form part of its drainage basin. The lake and its catchment have a huge investment potential that is yet to be exploited. The key natural resources of the basin include fish, biodiversity, water, land, forests, wildlife and minerals. The designation of the Lake Victoria Basin as an economic growth zone by the EAC Summit (EAC, 1997) was in recognition of the huge investment and development opportunities from these natural resources.</p> <p><i>Management of e-waste</i></p> <p>The use of ICT equipment and related accessories, which has tremendously been blessed and increased in recent years, is barely regulated. There are however a number of environmental issues related to this use such as the</p>

Section 3: Water and Environment Sector

Additional Requirements for Funding and Outputs in 2016/17

Justification of Requirement for Additional Outputs and Funding

gases released during the use and the disposal of the equipment after its life time. NEMA therefore seek to put in place mechanisms to regulate e-waste as an emerging environmental issues as laid down in the NDP1 page 314.

Staffing

NEMA as an institution and an authority lacks adequate staffing to effectively carry out its mandate.