

WATER SECTOR DELIVERS M7 MANIFESTO PROMISES DESPITE BIG CHALLENGES



By Mulengera Reporters

Despite facing enormous challenges and constraints ranging from inadequate funding to project affected persons (PAPs) demanding colossal sums of money to vacate project sites, the Luzira-based Ministry of Water & Environment (MWE) has registered tremendous accomplishments and thereby significantly contributing to the realization of President YK Museveni's 2016 campaign manifesto promises.

The ruling party manifesto promises have been delivered by MWE through a number of directorates, departments and MDAs which comprise the water & environment sector. These include the Forestry Services Support Department (FSSD), Wetland Management Department (WMD), Environment Services Support Department (ESSD), Water for Production Department (WfP), Rural Water Supply and Sanitation Department (RWSSD), Urban Water Supply and Sanitation Department (UWSSD), Directorate of Water Resources Management (DWRM), National Environment Management Authority (NEMA), National Forestry authority (NFA), Sawlog Production Grant Scheme (SPGS), National Water and Sewerage Corporation (NWSC) and Uganda National Meteorological Authority (UNMA).

In his manifesto, Gen Museveni promised to grow wetland restoration to 15% and today, one year to the end of his term, the MWE has managed to achieve 9% restoration (bringing the same to 2,029,090ha in absolute terms). A total of 637 hectares (ha) of degraded wetlands has been restored besides another 283.7km of critical wetlands which has been demarcated with pillars. Yet that isn't all. Critical wetlands like Katonga-Sembabule (10Hac), Mikomago-Masaka (45 Ha.), Lubigi-Wakiso (275 Ha) and Limoto-Pallisa (157.4 Ha) have been restored and protected (all totalling to 487.4 Ha).

As of 2015 when Gen Museveni's election manifesto was being authored, Uganda's forest cover stood at 9% which has since been grown to slightly over 12.4% still less than the 15% the NRM promised to have achieved by 2021. A multiplicity of efforts have contributed to this growth of forest cover from 2015's 9% to current 12.4%. These include sensitization, awareness creation and strengthened enforcement. There has also been plenty of forest restoration through natural regeneration, planting of different species, agroforestry and establishment of plantations through projects like Farm Income Enhancement and Forestry Conservation Project, REDD+, Sawlog Production Grant Scheme (SPGS) and Community Tree Planting Programme of the NFA.

In order to deliver Museveni's water for production-related interventions, ten (10) small scale irrigation systems have been completed in the districts of Pallisa, Bukedea, Katakwi, Tororo, Kamuli, Bugiri, Soroti, Abim, Kaabong and Mayuge. The available literature released for reflection during this year's manifesto week further indicates that the MWE leadership also commenced the construction of six (6) medium scale irrigation schemes covering 3,976 hectares. They are different levels of completion as manifested here: Rwengaaju in Kabarole district (70%), Tochi in Oyam district (86%), Mubuku-II (480ha) in Kasese district (63%), Doho-II (1,178ha) in Butaleja district (80.5%), Ngenge (880ha) in Kween district (87.5%) and Wadelai (1,000ha) in Pakwach district (53%). Overall, Uganda's irrigation area has grown from 15,000ha to 19,138ha against the irrigation potential estimated at 3.03m Ha.

Availability and access to facilities citizens require to comply with necessary levels of sanitation has grown to 79% for rural communities and 87.4% for urban dwellers. The total sewer network has since grown to 650kms implying 30% coverage of the whole country. NWSC, which is a key component of the water & environment sector, has extended the piped water network so far to 253 towns resulting into coverage of 17,556Km for the entire piped water network under NWSC (translating to 127.8m M³ of water supplied for the industrial/commercial customer base of 78,761). And the cumulative overall storage of water for production stands at 41.124m Cubic Meters (MCM); representing 72% of the 55MCM Gen Museveni projected as realizable in his campaign manifesto by 2021.

The countrywide water connections stand at 720,000 and the rural water coverage stands at 71% and 79.1% for urban areas. Uganda has 57,974 villages and of these 66% (or 38,517) have been served under the MWE interventions and have access to clean water. Only 19,457 villages (or 34%) remain unserved.

And there are some districts which have performed better than others when it comes to accessing clean water. Amuru district, where village coverage stands at 100%, is a good example. This stellar performance for Amuru has been attributed the district's unique village set up under something called "Terot Kweri."

Countrywide, a total of 35 districts have water coverage of 80% and above. Domestic water points have also been expanded to 132,341 and in the process enabling 27, 797,316 Ugandans to have access to clean water. The 27.8m Ugandans are being served as follows; 12,333,600 are getting their water through the 41,112 deep boreholes we have in place; 6,477,000 through the 21,590 shallow wells we have in place; 5,818,400 Ugandans through 29,097 protected springs we have in place; 3,045,900 Ugandans through 20,306 PSP/Kiosk/tap stands we have in place and 121,416 Ugandans through the 20,236 rain water harvesting facilities we have in place.

In brief, the following are the targets the water & environment sector had to deliver making life better for the people of Uganda under the NRM manifesto of 2016: increasing rural areas' access to clean/safe water from 65% to 79% and from 77% in towns to 100% by 2021. To achieve all these targets, the water & environment sector must provide a basic water source for every village in Uganda and piped water to all towns. Must also increase access to sanitation facilities from 77% to 79% in rural areas and from 84% to 100% among urban communities.

The other manifesto assignment for the MWE was to promote catchment-based integrated management of water resources and efficient water use besides ensuring that all water resources-related projects are sustained. Gen Museveni also tasked the sector leadership to deepen access to water for production and while at the same time increasing cumulative water storage from 27.8MCM to 55MCM (which is essential to support irrigation, livestock, aquaculture and rural industrialization through constructing/rehabilitating large and small water reservoirs).

The other aspect in which the officials at Luzira must support NRM manifesto implementation is through building a sustainable green economy (through restoring ecosystems, demarcating critical wetlands and forest boundaries). The other assignment was (and remains) to ensure that 100-200m trees are planted annually across Uganda. This how Gen Museveni hoped (and still hopes) to grow the national forest cover (currently at 12.4%) to 15% by 2021. The sector is also supposed to automate and pay adequate attention to climate change mitigation interventions to increase Uganda's resilience to climate change impacts.

All said and done, the water & environment sector remains one of extreme importance because even targets like increased electricity generation are directly dependent on the country's water and environment resources. The vastness of the sector's role is actually the reason why many rightly consider it crucial to the realization of the country's long term development objectives including the drive to transform Uganda from a peasant to an industrial middle income country by 2040. Among other things, to be able to sustainably industrialize, Uganda needs to leverage on its water resources to generate enough hydro-power and increase agricultural production or productivity. All the other economic activities (aimed at boosting wealth creation like livestock farming, fisheries, health services provision, industrial development, tourism development and mitigating climate and climate change effects) are equally dependent on how well Uganda manages her water resources. All this imposes the obligation on the MWE leadership to ensure prioritization goes into production of water while equally investing into infrastructure required for its delivery (leading to access) and storage as well.



Republic of Uganda

MINISTRY OF WATER AND ENVIRONMENT

PROGRESS ON IMPLEMENTATION OF THE

NRM-MANIFESTO FOR 2016-2021

May, 2020

1. INTRODUCTION

The Water and Environment Sector is central in contributing towards the country's drive towards transformation from a peasant to an industrial and middle income country by 2040. Broadly, the availability of adequate water resources is critical to hydro-power development, agricultural production and productivity, livestock, fisheries, health, industrial development, tourism development and mitigation of climate and climate change effects. Similarly, a healthy, clean and productive environment is essential in boosting wealth creation for social transformation and sustainable development because it reflects the balance between the demand and supply of natural resources on the one hand and the absorption and supply of waste products on the other in the development process.

The Ministry is committed to contributing to the economic and socio-transformation of the country by implementing the NRM Manifesto commitments for the five year (2016-2021) period. The focus has been and will continue to be on provision of access to safe and clean water as well as improved sanitation by increasing piped water coverage in both urban and rural areas so that water is brought nearer to the users. Efforts will equally continue to go into increasing storage while investing in construction of multipurpose water reservoirs to boost production and productivity in the key sectors of the economy. The NRM government also recognises the environment as a critical component in development and wealth creation and therefore aims at promoting massive tree planting and restoration of the degraded ecosystems country-wide.

The specific targets for Water and Environment sector in the manifesto implementation during period of 5 years include the following:-

- i. Increase access to clean and safe water from the current 65 per cent to 79 per cent in rural areas and from 77 per cent to 100 per cent in urban areas by 2021 with the aim of providing a water source in every village and increasing piped water coverage and increase access to 100% in both rural and urban areas.
- ii. Increase access to improved sanitation in rural areas from the current 77 per cent to 79 per cent and from 84 per cent to 100 per cent in urban areas.
- iii. Promote catchment based integrated water resources management, efficient water use and ensure that water resources related projects are sustained.
- iv. 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.
- v. Build a sustainable green economy, through restoration of ecosystems and demarcation of critical wetland and forest boundaries including planting of 100-200 million trees annually country wide. This will translate into an increase in the national forest cover from 11 per cent to 15 per cent and increase in wetlands cover from 10.0 per cent to 12 per cent by 2021.
- vi. Increase automation of climate monitoring network to 40 per cent and increase country's resilience to the impacts of climate change effects.

Progress on key milestones/outcomes in the Manifesto for 2016-2021

- The current rural water coverage is estimated at 71%, while the urban water coverage stands at 79.1%. The cumulative number of water connections countrywide is estimated at 720,000. Overall a total 38,517 villages representing 66% of the total 57,974 villages in the country have been served with clean water and the unserved villages are 19,457. Amuru district village coverage stands at 100% because the village set up in Amuru (Terot Kweri) compared to other districts. While 35 districts have a coverage of above 80%. Domestic water points increased to **132,341** serving 27, 797,316 people as per details below.

Technology	Number	No. Of persons Served
Deep boreholes	41,112	12,333,600
Shallow well	21,590	6,477,000
Protected Springs	29,097	5,819,400
PSP/KIOSK/Tap Stand	20,306	3,045,900
Rain Water Harvesting	20,236	121,416
Total	132,341	27,797,316

- The national average sanitation coverage in rural areas is at 79%. While sanitation in urban areas increased to 87.4% as at December 2019. The total sewer network is 650kms countrywide representing 30%.
- 17,556Km of NWSC piped water network has been extended serving 253 towns with 127.8million M³ of water supplied, with 78,761 industrial/commercial customer base.
- Overall, the current cumulative storage for water for production stands at 41.124 Million Cubic Meters (MCM). This represents 71.5% of the projected manifesto target of 55MCM expected to be realized by 2021.
 - ✓ In line with the above, Government completed construction of ten (10) Small scale Irrigation systems in districts of Pallisa, Bukedea, Katakwi, Tororo, Kamuli, Bugiri, Soroti, Abim, Kaabong and Mayuge Districts.
 - ✓ In addition Government has commenced with construction of six (6) medium scale irrigation schemes with a total of 3,976 hectares. These include, Rwengaaju in Kabarole District standing at 70%, Tochi in Oyam District standing at 86% completion level, Mubuku-II (480ha) in Kasese District stands at 63%, Doho-II (1,178ha) in Butaleja District is at 80.5%, Ngenge (880ha) in Kween District is 87.5% and Wadelai (1,000ha) in Pakwach district estimated at 53% completion level
- Irrigation area has increased from 15,000hac to 19,138ha against the irrigation potential estimated at 3.03m Ha.
- Forest cover has increased from 9% during 2015 to only 12.4% in 2019 as compared to the manifesto target of 15%. The increase has been due to education, awareness and enforcement as well as restoration through natural regeneration, planting of different species including agroforestry and plantation establishment through projects like Farm Income Enhancement and Forestry Conservation Project, REDD+, Sawlog Production Grant Scheme (SPGS) and Community Tree Planting Programme of the NFA.
- Wetland converge has stagnated to less than 8.9% (2,029,090ha). Government has restored 637 hectares (ha) of degraded wetlands and demarcated 283.7km of critical wetlands with pillars. Government further restored and protected critical wetlands like Katonga-Sembabule (10Hac), Mikomago-Masaka (45 Ha.), Lubigi-Wakiso (275 Ha) and Limoto-Pallisa (157.4 Ha) making a total of 487.4 Ha restored.

The detailed progress on commitments in the NRM-Manifesto under Water and Environment sector in five years (2016-2021) are outlined below:-

2. SPECIFIC NRM MANIFESTO COMMITMENTS FOR THE PERIOD OF 2016-2021

The implementation of the commitments is the responsibility of Ministry of Water and Environment (MWE) through Forestry Services Support Department (FSSD), Wetland Management Department (WMD), Environment Services Support Department (ESSD), Water for Production Department (WfP), Rural Water Supply and Sanitation Department (RWSSD), Urban Water Supply and Sanitation Department (UWSSD); Directorate of Water Resources Management (DWRM); National Environment Management Authority (NEMA); National Forestry authority (NFA); Sawlog Production Grant Scheme (SPGS); National Water and Sewerage Corporation (NWSC) and Uganda National Meteorological Authority (UNMA).

2.1 Environment and Natural Resources Sub-Sector

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
Natural Resources	<i>Increase the country's forest cover from 10% to 15% by 2021.</i>	1. Increase involvement of the population in tree planting through the greening Uganda program by planting 200 million trees. <ul style="list-style-type: none"> • Introduce tree planting exercise on all national holidays. • Step up the supply of free and/or subsidised tree seedlings • Sensitise and mobilise people to plant trees including those who want to invest in tree planting on a large scale. • Support private initiatives in production of tree seedlings 	All public holidays were gazetted for tree planting by Cabinet namely Women's 8 th March; Labour Day 1 st May; Environment Day 5 th June and Youth Day 12 th August. Others are National/International, Forest, Meteorological, Wetlands and Water Day. Trees will be planted in every district and in all secondary and primary schools. NFA has raised over 97,927,130 assorted quality seedlings free and/or subsidized raised and distributed to communities across the country for planting.
		2. Continue to implement a phased approach to sustainable forest management through improving low stocked/or degraded natural forests using the landscape approach, strengthen the policing to protect forest reserves and forts against illegal activities.	Over 8,251 hectares of tropical high forests restored and over 800,000 hectares of wood land, and tropical forests protected against illegal activities.
		3. Review the Forest and Tree Planting Act (2003) with the objective of strengthening forest conservation and tree planting initiatives.	Not yet finalised. MWE initiated consultation and a REA has been prepared for both Uganda Forest Policy (2001) and National Forest Tree Planting Act of 2003
		4. Ensure re-surveying and demarcation of external boundaries of 12,000km under 506 Central Forest Reserves (CFRs) with permanent concrete pillars to effectively secure the integrity of the Central Forest Reserves	A total 1,740 Kilometers external Central Reserve Forest boundary of the 506 CFRs under NFA reopened and marked concrete pillars

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
		5. Invest in plantation development at a rate of 2,500 Ha per year while maintaining the existing and subsequent forest crops	At least 52,689 hectares for of quality commercial plantations in 5 years has been established and employing over 100,000 people in nursery and tending.
		6. Expanding the forest cover to 20% by 2021	The forest cover has increased from 9% during 2015 to only 12.4% in 2019 as compared to the manifesto target of 15%. The increase has been due to education, awareness and enforcement as well as restoration through natural regeneration, planting of different species including agroforestry and plantation establishment through projects like Farm Income Enhancement and Forestry Conservation Project, REDD+, Sawlog Production Grant Scheme (SPGS) and Community Tree Planting Programme of the NFA.
		7. Restructuring the forestry management to ensure ploughing back of all non-tax revenue in protection of natural forests and tree planting.	The review process for the Uganda Forestry Policy, 2001, the National Forestry and Tree Planting Act, 2003 and the National Forest Plan, 2012/2022 begun in 2019 and is still on going. This will be considered during the review process through consultations with the different stakeholders.
		8. Implementing the agro-forestry standards by ensuring one tenth of all land under agriculture is forest cover.	Whereas the sector has through implementation of different interventions like the Farm Income Enhancement and Forestry Conservation (FIEFOC) project, the REDD+ project, Community Tree planting promoted agroforestry at community level, the demand for planting of trees for commercial purposes and other uses has generally increased due to intensive tree planting campaigns, awareness and enforcement, but there has been no deliberate documentation of the average percentage of the land under tree cover.
		9. Strengthen the policing to protect forest reserves and forests against illegal activities	The current EPPU staff stands at 186. These were distributed equally to NEMA, NFA and MWE. The force has supported the sector in protect against illegal activities in CFRs countrywide. This include illegal charcoal burning in Northern Uganda which is being done with support by NEMA in Kidepo NP and Kalamoja region to protect indigenous wood lots.
		10. Encourage the youth to protect the environment and support youth involvement in green business.	There is already an MoU between MWE has Youth Go Green which is involved in most of MWE activities especially advocacy, tree planting, train younger people in climate SMART agricultural initiatives, waste recycling for charcoal briquettes production, awareness creation about climate change, adaptation and mitigation activities, biodiversity conservation and natural resources management countrywide. The

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
			group has linked the ministry with other youth group in promotion of tree planting and climate change. The youth have also been involved in participation of the youth in inter-governmental and international climate Changes conferences (COPs)
		11. Finalise the RED+ Strategy by 2018 with aim of addressing climate change effects through reducing emissions from Deforestation and Forest Degradation (REDD+).	??
	<i>Increase the country's wetlands cover from 10.9% to 12% by 2021.</i>	12. Continue with demarcating wetland boundaries with concrete pillars and beacons and ensure gazettement targeting 2,880Kms of boundaries of major critical wetlands in the districts of Masindi, Hoima, Arua, Amuria, Kaliro, Gulu, Dokolo, Luwero, Iganga, Mbale, Kibuuku, Sheema, Isingiro, Buyende, Namutumba, Kisoro, Luweero, Budaka.	A total of 1,728.5 kms of critical wetlands boundaries have been demarcated with pillars and beacons in Gulu, Lira, Mbale, Bushenyi, Hoima, Jinja, Masindi, Amuria, Kaliro, Buyende, Namutumba, Iganga, Rakai, Sheema, Buhweju, Alebtong, Dokolo, Kisoro, Kabarole, Wakiso, Arua. All the 8 wetland basins have been coded with identifiers to aid gazettement process. For the short term all the wetlands in the Victoria and Kioga basins will be gazette in FY 2010/21 and the rest will be gazette in the next FY.
		13. Up scale the restoration of at least 19,480Ha of degraded section of wetland to maintain their integrity in Masindi, Hoima, Arua, Kaliro, Gulu, Dokolo, Luwero, Iganga, Mbale, Kibuku, Sheema, Isingiro, Buhweju, Buyende, Namutumba, Pallisa, Kabale, Kisoro, Amuria	Restored 10,263.6Ha of degraded wetlands country wide, over the last 4 years to maintain their integrity to store carbon in the peat soil and maintain water quantity and quality in the districts of Kumi, Kampala, Kasese, Aleptong, Pallisa, Ngora, Bukedea, Manafwa, Buhweju, Masaka, Jinja, Kamwenge, Masindi, Hoima, Arua, Kaliro, Gulu, Dokolo, Luwero, Iganga, Mbale, Kibuku, Sheema, Isingiro, Buhw.eju, Buyende, Namutumba, Pallisa, Kabale, Kisoro, Amuria, Kamuli, Buyende, Maracha, Mbarara, Ntugamo, Kiruhura, Kanungu, Wakiso, Kayunga, Lwengo.
		14. Sensitize communities on wise use of Wetlands by up-scaling mobilization and training of local communities on wise use of wetlands by identifying wetland resources for value addition and income generation through development of management plans.	Sensitization is one of the key activities being undertaken in the wise use of wetlands and is being promoted in all 136 districts through the District Environment Officer and Wetlands Officers. In addition, the GCF project is covering 20 districts where alternative projects are being promoted such as training 120 beneficiaries in water storage technologies, construction of fish ponds to serve as alternative livelihoods for communities and supplying over 150 Heifers and 600 Turkeys to the community members displaced from Limoto wetland.

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
	<i>Enhancing the sustainable Natural Resources Management for livelihood improvement</i>	<p>15. Scale up the Municipal Solid Waste composting facilities</p> <p>16. Continue with the operationalization of the Environmental Protection Police to enhance compliance monitoring and law enforcement in Forests and Wetlands.</p> <p>17. Review the regulations and guidelines regarding EIAs to avoid long delays and the high fees charged.</p>	<ul style="list-style-type: none"> Phase I had 9 municipalities of Lira, Soroti, Mbale, Jinja, Mukono, Fort Portal, Kasese, Mbarara, and Kabale. Each received specialized equipment including skip loaders, wheel loaders and a composting plant. Phase II was extended to 8 municipalities that include Arua, Gulu, Tororo, Busia, Entebbe, Mityana, Hoima and Masindi. These were supplied with solid waste management equipment like skip loaders, and wheel loaders, while the towns of Arua, Masindi and Hoima have been provided with composting plants. A new biogas project was setup in 2018 support to composting plants to convert Municipal Solid waste into Biogas targeting the three municipalities of Jinja, Mbale and Masaka and Kampala Capital city <p>The current EPPU staff stands at 186 compared to the desired 350 force required in the short term.</p> <p>The National Environment (Environmental Impact and Social Assessment Regulations 2019) was reviewed, finalized and signed into law by the Minister. They are awaiting publication.</p>
Rural Water Supply and Sanitation	<i>Increased access to clean and safe water within a radius of 1km from 65% to 100%.</i>	18. Construction of 12 new large Gravity Flow Schemes in Nyarwodho– Phase II (Nebbi), Lirima – Phase II (Manafwa), Bukwo – Phase II (Bukwo), Bududa-Phase II (Bududa), Bukedea (Sironko, Kween, Kapchorwa, Bulambuli), Ogili (Agago), Ntoroko(Ntoroko), Potika (Lamwo), Bwambara-Bugangari (Rukungiri), Orom (Kitgum), Nyamugasani(Kasese), Ngoma – Wakyato (Nakaseke).	<ul style="list-style-type: none"> Completed schemes: Nyarwodho–Phase II (Nebbi), Bukwo–Phase II (Bukwo) and Bududa-Phase II (Bududa). Ongoing construction include: Lirima – Phase II (Manafwa) at 84%; Bukedea (Sironko, Kween, Kapchorwa, Bulambuli) at 90%, Ntoroko(Ntoroko) at 98%, and Orom (Kitgum) at 17%, At design and feasibility stage: Bwambara- Bugangari (Rukungiri) detailed design completed; yet to find a source of funds to commence construction; Nyamugasani(Kasese) EIA completed. Construction to commence in FY 2020/2021; Ngoma – Wakyato (Nakaseke) detailed design completed; yet to find a source of funds to commence construction; Ogili (Agago) detailed design completed; yet to find a source of funds to commence construction; Potika

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
			(Lamwo) detailed design completed. Works to commence in the FY 2020/2021 since funding have since been secured.
		19. Rehabilitate and expand 5 water systems in Nyabuhikye and Kikyenkya (Ibanda), Shuuku and Masyoro (Sheema), Lukalu (Butambala), Bitsya (Buhweju) water systems.	<ul style="list-style-type: none"> Nyabuhikye and Kikyenkya (Ibanda) is at 64%, Shuuku and Masyoro (Sheema) is at 89%, Lukalu (Butambala) is at 44%, Bitsya (Buhweju) water systems environmental Social and Impact Assessment completed. Construction to commence in FY 2020/2021.
		20. Drill 5,000 boreholes countrywide	<ul style="list-style-type: none"> Out of the annual target of drilling 1,000 boreholes to be fitted with hand pumps based on their yield, a total of 663 (64%) hand pump boreholes have been drilled across the country. These boreholes have helped serve an extra 198,900 citizens across the country.
		21. Large diameter wells developed in water stressed parts of the country (50 BH per year) covering Karamoja region, the low-lying, dry expanses of Isingiro, Ntungamo, Kiruhura, Yumbe, Zombo, Koboko, Moyo, Kiboga, Kyankwanzi, Nakaseke, Nakasongola, Rakai, Buyende and Kaliro districts.	<ul style="list-style-type: none"> A number of production wells and large diameter wells have been constructed in different areas (Kalamoja (13), Isingiro(6), Nakasongola (6), Kole (3), Iganga (1), Kamuli (1), Luwero (1), Kitgum (10), Amuru (1), Gomba (1), Lyantonde (1), Mayuge (2), Jinja (1), Arua (1), Omoro (2), Manafa (2), Busia (2), Butambala (2), Kaberamaido (1), Kamuli (2), Wakiso (2), Kiboga (2).
		22. Bulk transfer of water to water stressed areas.	<ul style="list-style-type: none"> Constructed appropriate systems in Bugiri, Namayingo districts, Karamoja region and 24 other such districts developing a total of 68 large diameter production boreholes to serve communities in water stressed areas.
		23. Initiate construction of 2,060 boreholes and install with solar powered mini piped water schemes with taps to villages.	<ul style="list-style-type: none"> Construction of the first 30 solar mini piped water schemes across the country is ongoing.
	<i>Improving functionality of rural water sources.</i>	24. Review policy on Operation and Maintenance with a view of Government taking over the role of repairing water sources.	<ul style="list-style-type: none"> The O&M Framework was developed and is due for launching on 24th March 2020.
Urban Supply Water & Sewerage	<i>Improve water coverage from 80% to 100%</i>	25. Complete construction of on-going piped water systems in 19 Towns in Bugongi (Sheema), Bukakata (Masaka), Bukwo, Buliisa, Dokolo, Kagoma (Jinja), Kaliro, Kalongo (Agago), Ocapa & Kyere (Serere), Luuka, Midigo (Yumbe), Ntungamo, Kyalubungu (Isingiro), Nyeihanga (Mbarara), Okoro (Arua), Ovujjo (Maracha), Pajule (Pader) and Sanga (Kiruhra)..	<ul style="list-style-type: none"> The target to construct 19 water supply systems in selected towns was completed and target surpassed. So far 36 schemes were constructed to benefit 547,670 people in 40 towns.
		26. 10 new town piped water systems constructed in	<ul style="list-style-type: none"> 7 new towns were constructed to completion Kasagama, Kinuuka,

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
		<p>Kapelebyong (Amuria), Kasagama (Lyantonde), Kayunga, Kinuuka (Lyantonde), Kyamuhunga (Bushenyi), Mpara (Kyegegwa), Nakasongola, Namagera (Jinja), Nyahuka (Bundibujjo), Nakapiripirit, Iziru (Jinja), Busede-Bugobya(Jinja), feacal sludge treatment plant (Kamuli).</p> <p>27. 33 piped water supply systems designed in Aboke (Kole) Buseruka (Hoima), Lwanika (Bugiri), Amuru TC, Buyala (Jinja), Mukura (Kumi), Anyeke (Apac), Kabura (Mbarara), Nakaloke (Mbale), Atapara (Oyam), Kagadi (Kibaale), Namaganga (Jinja),Awach (Gulu), Kal (Lamwo), Namasagali (Kamuli), Baale (Kayunga), Kasanda (Mubende), Nazigo (Kayunga), Bala (Kole), Kikingura (Masindi), Nyabweru (Kisoro), Barakala (Koboko), Kitanga (Kabale), Nyakashaka (Buhweju), Bugobya (Jinja), Kyakabadima (Kibaale), Ofwa (Nebbi), Buhimba (Hoima), Kyenda (Mubende), Rwenshaka (Rukungiri), Buliima (Masindi), Lokung (Lamwo), Wobulenzi (Luwero), Bulegeni (Bulambuli) Kotido, Bulambuli-Buyaga (Bulambuli), Nakiperimoru (Kotido), Kacheri-Lokona (Kotido), Kadungulu (Serere), Kibale (Palisa), Kibaale (Namutumba), Namayingo; ,Barajobi, Olilim & Okwang (Otuke).</p> <p>28. Designs for 41 new piped water supply systems to small towns completed in the following towns Amudat, Kambuga, (Kanungu), Namwendwa (Kamuli), Barr (Lira), Namwiwa (Kaliro), Binyinyi TC (Kween), Katovu (Lwengo), Ngoma (Nakaseke), Budaka, Kiwoko (Nakaseke), Nyeihanga Mbarara, Buggadde(Mayuge), Kotido, Bulopa (Kamuli), Kumi/Nyero/Ngora, Okokoro (Maracha), Busolwe (Butaleja), Kyabi (Sembabule),Ovisoni (Arua), Butaleja, Lukaya (Kalungu), Pabbo (Amuru), Buyende, Lumino (Busia), Pacego (Nebbi), Bwondha (Mayuge), Lwemiyaga (Sembabule), Pallisa Gomba, Magodesi (Tororo),Rukungiri municipality, Idudi (Iganga), Musita (Mayuge), Tirinyi-</p>	<p>Namagera, Nyahuka, Iziru, Busede-Bugobya and Kaperabyong.</p> <ul style="list-style-type: none"> • 4 new towns of Mpara Nakasongola, Nakapiripirit under design phase by (IWMDP & STWSSP) projects and Kyamuhunga. Kayunga is under construction estimated at 85% completion level. • 1 FSM of Kamuli is under construction (98%) completion. <p>• The 33 towns below are also at various levels of design and construction.</p> <ul style="list-style-type: none"> ✓ The 11 are under construction at respective levels of achievement. Kagadi (70%), Nazigo (20%), Kasanda (18%), Bulegeni (100%), Kacheri-Lokona (100%), Kagadi (84%), Ofua (60%), Bugobya (100%), Bulambuli (100%), Namayingo (100%), Olilim (100%). ✓ The 13 towns have been designed to completion ✓ The 5 towns are still under design ✓ 1 Town is under Procurement: Nyakashaka, ✓ 3 Towns not yet designed Mukura, Baale, Wobulenzi. <p>7 Designs completed in towns of Bwondha, Idudi, Musita, Zombo, Ovison, Kotido, Okokoro,</p> <p>15 towns were designs and construction were completed include: Amudat, Kumi-Nyero-Ngora, Namwendwa, Pabbo, Buyende, Pacego, Palisa, Rukungiri Municipality, Namagera, Namukora, Nyeihanga, Kambuga, Namwendwa, Namwiwa, Bulopa</p> <p>3 Designs completed and construction is ongoing: Lwemiyaga (35%), Kiwoko (90%), Binyinyi (61%),</p> <p>16 Towns under Designs include: Barr, Ngoma, Katovu, Bugadde, Kotido, Budaka, Butalejja, Lumino, Tirinyi, Kibuku, Ikii-Ikii, Gomba, Magodesi, Lukaya, Kyabi, Busolwe</p>

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
		Kibuku, Iki Iki (Budaka), Namagera (Jinja), Zombo TC, Kabwangasi (Pallisa), Namukora (Kitgum).	
		29. Extend water pumps to villages	13 large rural gravity flow schemes have been constructed extending water to villages where this technology is appropriate. These include the new large Gravity Flow Schemes in Nyarwodho – Phase II (Nebbi), Lirima – Phase II (Manafwa), Bukwo – Phase II (Bukwo), Bududa-Phase II (Bududa), Bukedea (Sironko, Kween, Kapchorwa, Bulambuli), Ntoroko (Ntoroko) have been constructed to completion. Construction of Orom gravity flow scheme (Kitgum district) was replaced with six satellite water systems due to inadequate water at Orom hills. Funding for Nyamugasani gravity flow scheme (Kasese) and Bitsya (Buhweju) has been secured and construction will be moved to the period 2021 - 2026 Manifesto. No funding was secured for Ngoma – Wakyato (Nakaseke), Ogi
National Water and Sewerage Corporation (NWSC)		30. Finalise construction of sewerage treatment plant in Bugolobi and attendant sewerage collection infrastructure for Nakivubo and Kinawataka catchment area.	✓ Completed construction of 26.7km of sewer mains. The project is expected to serve 2,215,690 people by the year 2033.
		31. Construct 45 public toilets with bathrooms in various location in Greater Kampala.	✓ Construction of 45 public toilets with bathrooms has not yet commenced.
		32. Expansion of piped water system in Greater Kampala to improve water supply. <ul style="list-style-type: none"> ✓ Refurbish Gabba 1 and 2, (Water supply improvement in Namasuba, Ndejje, Lubowa Bunamwaya, Nyanama Kisugula, Kyengerera and Nsangi) ✓ Water network modelling and master planning and re-zoning ✓ Commence construction works for Katosi Water Treatment plant ✓ WATSAN improvements in Urban poor areas 	<ul style="list-style-type: none"> ✓ The Greater Kampala system is under operation ✓ The project is still at design stage by H.P. Gauff Ingenieure in association with Artelia Eau and Environment and Gauff Consultants (U) Ltd. ✓ Works commenced, Overall progress of the plant works is 40%. ✓ Works on staff houses at 90% progress, 12km of pipe laying activities achieved. Commenced construction of Katosi reservoir walls, columns and base for the 1st compartment. Overall progress of the Sonde reservoir is 28%.
		33. Urban poor water service provision- pro-poor interventions through construction of at least 3,000 public stand posts (average 600 PSPs per year in the NWSC operation areas.	<ul style="list-style-type: none"> • In the manifesto period 2015-2020, NWSC installed 9,437 new public stand posts (2016-1,129, 2017-1,164, 2018-3,342, 2019-2,172 and 2020-1,630). Total number of PSPs is 19,638.

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
		34. Continue with the rehabilitation and expansion of the existing water supply and sewerage systems in various parts country for improved service delivery in 10 districts. <ul style="list-style-type: none"> • Gulu, Bushenyi, Arua, Mbale (Under the WMDP) • Masindi/Hoima Albertine Graben Cluster (North) • Kasese/Fort portal Albertine Graben Cluster (South) • Mbarara Masaka South Western Cluster. 	<ul style="list-style-type: none"> ✓ Bushenyi. Project was substantially completed and the water supply systems is under operations. Defects liability period ended September 2018. ✓ Arua. Project was substantially completed and the water supply systems is under operations. Defects liability period ended February 2019 ✓ Gulu. Works for Karuma intake completed. Rehabilitation of the water treatment plant substantially completed ✓ Mbale. Development Partner's No Objection to the evaluation report obtained. The proceeding activities will be done in the next quarter. ✓ Masindi –Hoima Feasibility and Pre-design is on-going NWSC. NB. Funding for Kasese/Fortportal is not available. ✓ Mbarara Masaka South Western Cluster Inception report submitted. Draft preliminary design review report submitted.
		35. Increase accessibility to water and sanitation services through extension of over 4,000 kms (average of 800km per annum) and Mains Extension of 100 kms of sewer mains	<ul style="list-style-type: none"> ✓ In 2016-888Km, 2017-911Km, 2018-2,021Km, 2019-2,728Km 1,344km of water mains were extended in the FY 2019/20 (July-December 2019). In manifesto period (2015-21) we have laid 7,892Km of water mains. Current total network is 18,837.12 Km ✓ During the manifesto period (2015-21), NWSC has laid 105Km of Sewer Mains Extensions (2016-18.5Km), (2017-26.14Km), (2018-24Km), (2019-59Km) and (36Km for 2020).
		36. Create a total of 28mm ³ (28 billion litres) of water storage by constructing the following dams: Acanpii dam in Oyam district; Namatata dam in Nakapiripirit district; Katabok dam in Abim district; Bigasha dam in Isingiro district; Ongole dam in Katakwi district and Mabira dam in Mbarara district.	<ul style="list-style-type: none"> • To date (i) Ongole dam (1,000,000,000 litres) in Katakwi district and Mabira dam (1,100,000,000 litres) in Mbarara are completed. (ii) Namatata dam in Nakapiripirit district, Bigasha dam in Isingiro district and Katabok dam in Abim district were not implemented because feasibility studies conducted revealed that the geotechnical conditions were unsuitable for construction of dam foundation and required complex and expensive techniques which are not economically viable. Studies are ongoing to find alternative sites for the dams in the areas. (iii) Acanpii dam in Oyam district was not implemented because there were land disputes which the District Local Government and the Ministry were unable to resolve.
Water for Productio	Improve access to WFP and increase	37. Designs for the 6 large reservoir with a total capacity of 28bn litres of water storage completed in Acanpii	<ul style="list-style-type: none"> ✓ Design for Acanpii Dam in Oyam district (2.4 MCM) completed. ✓ Design for Namatata Dam in Nakapiripirit district (11.8 MCM)

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
n	<p>cumulative storage from 27.8 to 55MC through construction of large and small water schemes for multipurpose use, including; irrigation, livestock, aquaculture and rural industries:</p>	<p>dam (Oyam), Namatata dam (Nakapiripiriti), Ongole dam (Katakwi), Bigasha dam (Isingiro), Katabok dam (Abim) and Mabira dam (Mbarara).</p>	<p>completed.</p> <ul style="list-style-type: none"> ✓ Design for Katabok Dam in Abim district (2.3 MCM) completed. ✓ Feasibility study for Bigasha Dam in Isingiro district (6.4 MCM) completed ✓ Construction of Ongole Dam in Katakwi district (1.0 MCM) was completed in 2016 and commissioned ✓ Construction of Mabira Dam in Mbarara district (1.1 MCM) in Rwanyamahembe Sub-county commenced in November, 2017 and works are at substantial completion.
		<p>38. Procure construction equipment for large reservoirs to be distributed in Teso, West Nile and Northern Uganda region.</p>	<ul style="list-style-type: none"> • Four (4) sets of construction equipment for large reservoirs were procured for Teso shared with Eastern region and 2 sets shared by West Nile and Northern Uganda and are based in the regions.
	<p>Critical activities will include</p>	<p>39. Procure additional construction equipment for construction of valley dams/tanks in Buyende, Kaliro, Kayunga, Masindi, Buliisa and Kyegegwa districts.</p>	<ul style="list-style-type: none"> • The Ministry has a total of fifteen (15) functional sets of construction equipment that serve at regional basis ie North, East, West and Karamoja where the Districts of Buyende, Kaliro, Kayunga, Masindi, Buliisa and Kyegegwa access these equipment.
	<p>a. Construction of Irrigation Schemes</p> <p>b. Rehabilitation of existing old dams</p> <p>c. Reconstruction of irrigation schemes</p>	<p>40. Construction of bulk water supply systems for multi-purpose use in Bukanga (Isingiro), Nyabushozi, Kikatisi, Sanga ,Kanyalyeru and kazoo (Kiriuhura), Kakuuto and Koochi (Rakai), Kabula (Lyantode), Nakasongola, Nakapiripiriti, Moroto, Katakwi and Amuria districts.</p>	<ul style="list-style-type: none"> • Feasibility studies were done. Funds for implementation have not been availed.
	<p>d. Setting up innovative technologies.</p>	<p>41. Undertake detailed feasibility studies and designs of 12 irrigation schemes in Albetong), Namalu (Nakapiripiriti), Mobuku II (Kasese), Amutur (Bukedea), Doho II (Butaleja), Rhino camp; Wadelai (Nebbi/Arua), Biiso (Buliisa), Kateete (Kanungu), Kibimba-Katonga (Gomba/Mpigi/Butambala), Pabo (Amuru),Tochi (Oyam), Musamyia (Kayunga).</p>	<ul style="list-style-type: none"> • Design of five (05) earth dams of Kyenshama in Mbarara District, Makokwa and Kyahi in Gomba District, Geregere in Agago District and Ojama in Serere District is ongoing. Feasibility studies for fourteen (14) multi-purpose storage dams in Karamoja Sub-region is ongoing.
		<p>42. Rehabilitate 16 dams in Teso region including Ongole dam</p>	<ul style="list-style-type: none"> • Ongole dam (1,000,000,000 litres) in Katakwi district was constructed by MWE. The rehabilitation of 15 old dams in Teso region was not done by the Ministry because of limited financial resources.
		<p>43. Identify areas and provide more water reservoir</p>	<ul style="list-style-type: none"> ✓ Extra sets of construction equipment were procured and

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
		<p>construction equipment</p>	<p>distributed to the various regions for construction of water reservoirs as follows;</p> <ol style="list-style-type: none"> Water for Production Regional Centre West based in Mbarara district with 2 units Water for Production Regional Centre East based in Mbale district with 1 unit, and Water for Production Regional Centre North based in Lira district with 2 units.
		<p>44. Large and medium water reservoirs will be developed for 12 irrigation schemes.</p>	<p>Large and medium water reservoirs storage for the irrigation schemes was created for;</p> <ol style="list-style-type: none"> Olweny (2,800,000,000 litres) in Lira district, Tochi (10,000,000,000 litres) in Oyam district, Ngenge (250,000,000 litres) in Kween district, Wadelai (8,000,000,000 litres) in Nebbi district, and Mubuku II (140,000,000 litres) in Kasese district. In addition, the Ministry is conducting Feasibility Studies to identify Mega Irrigation schemes around Mt. Rwenzori area, Mt. Elgon Area and Agoro Hills for potential water reservoirs which will be used as sources of water for irrigation.
		<p>45. Connect pumps on some of the existing boreholes with high yields to create multiple points for collecting water from taps. RWSS</p>	<p>Solar water pumping systems have been connected to a total of 128 boreholes to be pumped by solar. This is in addition to the boreholes motorized with electricity from the national grid, serving an extra 198,900 citizens across the country.</p>
		<p>46. Rehabilitate 104 dams in the Cattle corridor</p>	<ul style="list-style-type: none"> Rehabilitation of Ongole Dam in Katakwi district – Construction of Ongole dam in Katakwi District was completed in 2016. Rehabilitation of other dams in the Cattle Corridor (104)– The Ministry has constructed Andibo dam in Pakwach District, rehabilitated Ongole and Mabira dams in Katakwi and Mbarara Districts respectively. MWE has also rehabilitated valley tanks of Odusai in Pallisa District, Nalubembe in Kibuuku District, Iwemba and Nabweya in Bugiri District, Kyabal and Kalera in Sheema District, Constructed nine (9) valley tanks under Kisozi Livelihoods Improvement Project in Gomba and Sembabule Districts. Constructed and rehabilitated twenty (20) valley tanks under Global Climate Change Alliance (GCCA) Project in the Districts of Nakasongola, Luweero, Nakaseke, Sembabule, Mubende and

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
		<p>47. Reconstruct Odina Irrigation Scheme in Soroti, Kiige Irrigation Scheme in Kamuli, Rwegaju Irrigation Scheme in Kabarole district.</p> <p>48. Invest in development of water for industrial purposes by putting in place the necessary infrastructure to support the re-use of water in industries especially in nuclear and oil refining industries which require considerable volumes of water for cooling.</p>	<p>Kiboga.</p> <ul style="list-style-type: none"> • Constructed 153 Valley tanks creating a storage capacity of 458,370m³ using Ministry WfP Equipment in the Districts of Isingiro, Mbarara, Kiruhura, Lyantonde, Tororo, Soroti, Kaberamaido, Bukedea, Gomba, Kabarole, Kamuli, Kiboga, Katakwi, Kitgum, Kyankwanzi, Lwengo, Ntungamo, Sembabule, Kayunga, Nakasongola and Mubende. • Rwegaju irrigation scheme in Kabarole district is under construction (currently at 70% progress) and is to be fully completed by October 2020. The rehabilitation of Odina and Kiige irrigation schemes in Soroti and Kamuli districts was not undertaken because the Ministry was unable to secure funding from the earmarked development partners. • Water Supply to Industrial Parks. NWSC has extended water in the constructed industrial parks to improve water supply and avail sufficient water for future developments in the established parks. ✓ Connected to water by NWSC: Bweyogerere Industrial and Business Park is under the management of NWSC Seeta Branch. Luzira Industrial and Business Park receives water supply from the NWSC Mutungo tank Kasese Industrial and Business Park siting on 70 acres. NWSC provided a DN50mm pipe along the lower boundary of the park and the existing project has been connected and provided with water supply. Soroti Industrial and Business Park sits on 219 acres has been initially connected, ✓ Not yet connected by NWSC: Kashari Agricultural Land in Mbarara sits on 147.3acres. Mbale Industrial and Business Park Sewerage Services for the Industrial Parks in Mbale preliminary construction process still underway. Kapeeka Industrial and Business Park: NWSC in the process of designing a water supply system expansion project Karamoja Industrial and Business Park is till at design stage and not yet connected to NWSC. Jinja Industrial and Business Park,

Thematic Area	Milestones and Targets in the 2016-2021 NRM Manifesto	Interventions/Commitments	Status at December, 2019
			✓ Sewerage Services for the Industrial Parks in Mbale still at design level.
		49. Avail machinery for construction of valley dams /tanks and for drilling boreholes where borehole usage is appropriate to ensure availability of water for the animals and irrigation	• Machinery for construction of valley tanks/dams: The Ministry has a total of fifteen (15) functional Sets of construction Equipment distributed in the regions of North, West, East and Karamoja. To date, a total of 1,197 valley tanks have been constructed under this arrangement.
		50. Provide support to scientists at Makerere University to develop a solar water pump to revolutionise agriculture through affordable irrigation systems.	Not yet done

51. What challenges are hindering the implementation

- The limited financial resources due to high per capita investment costs coupled with inadequate local capacity of private sector players affects timely implementation of the manifesto commitments. In addition there are land disputes in some of the areas where the WfP infrastructures was to be implemented such as at Acanpii dam in Oyam district. To some extent the communities resist construction of water supply schemes and WfP facilities while other demand exorbitant sums of money for land compensation and this consequently delays actual construction of the water infrastructure as planned. In addition, the unanticipated delays in completion of feasibility studies and designs under the ministry and NWSC equally affects planned commencement of projects.
- The pressure on wetlands and forests due to need of land for agriculture expansion, rapid population growth, unplanned urbanization, expansion of informal settlements and industrialization outstrip the effort by the sector and not matching up with rate of demarcation, restoration and maintenances of the ecosystems. Likewise, the inadequate staffing levels for Environmental Police Protection Unit (EPPU) has also affected effective enforcement for environment protection countrywide.