

FINANCE ASSESSMENT OF THE WASH SECTOR IN UGANDA

FINAL REPORT FOR IRC

25 April 2019, José Frade



ACRONYMS

ADA	Austrian Development Aid
AFD	Agence Française de Développement
BAU	Business as Usual
BFP	Budget Framework Paper
CapEx	Capital Expenditure
CapManEx	Capital Maintenance Expenditure
Ctp	Capacity to pay
DEA	Environmental Affairs Department
DPs	Development Partners
DWD	Water Development Department
DWRM	Water Resources Management Department
DWURD	Water Utilities Regulation Department
EIB	European Investment Bank
ENR	Environment and Natural Resources
FY	Financial Year
GOU	Government of Uganda
JICA	Japan International Cooperation Agency
JMP	Joint Monitoring Programme
JPF	Joint Partnership Fund
JSR	Joint Sector Review
JWESSP	Joint Water and Environment Sector Support Programme
KFW	German Development Agency
KPIs	Key Performance Indicators
MOFPED	Ministry of Finance, Planning and Economic Development
MWE	Ministry of Water and Environment
MTEF	Medium Term Expenditure Framework
NEMA	National Environment Management Authority
NFA	National Forestry Authority
NGOs	Non-Governmental Organisations
NPD	National Development Plan
NRW	Non-Revenue Water
NWSC	National Water and Sewerage Corporation
ODA	Overseas Development Assistance
O&M	Operation and maintenance
OpEx	Operational and minor maintenance expenditure
PPIAF	Public-Private Infrastructure Advisory Facility
ppt	PowerPoint presentation
PSP	Public Stand Posts
RF	Revolving Fund or Revolving Facility
RGC	Rural Growth Centre
SBPs	Strategic Business Plans
SCAP	Service Coverage Acceleration Program
SDG	Sustainable Development Goals
SIM	Sector Investment Model
SPD	Sector Development Plan
SPR	Sector Performance Report
SPS	Sector Programme Support

SSIP	Strategic Sector Investment Plan
TA	Technical Assistance
TOR	Terms of Reference
TSUs	Technical Support Units
UNMA	Uganda National Meteorological Authority
UOs	Umbrella Organisations
UPMIS	Utility Performance Monitoring and Information System
UWAs	Umbrella Water Authorities
UWASNET	Uganda Water and Sanitation NGO Network
UWSS	Urban Water Supply and Sanitation
WASH	Water, Sanitation and Hygiene
WASH	Water Supply and Sanitation
WESWG	Environment Sector Working Group
WMZ	Water Management Zones
WSDFs	Water Supply Development Facilities
Wtp	Willingness to pay
WWS	Water Supply and Sanitation

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EXECUTIVE SUMMARY

The Uganda water sector is well organised and managed with clear policies, strategies and planning under a well-defined institutional and legal framework. There is an annual Joint Sector Review (JSR) supported by a Water and Environment Sector Performance Report (SPR) involving all relevant stakeholders. They have the opportunity to share their thoughts on the sector's performance and main issues. Presentations from the JSR are available on the Ministry of Water and Environment (MWE) website.

The last JSR took place in Kampala from 18-20 September 2018 and the main theme was 'Bridging the gap between increased service demands and existing sector financing'. The JSR had several objectives, one of which was on the theme of finance, namely, to review and strengthen approaches on how to overcome the challenges of financing the water and environment sector. The finance theme of the JSR and its objective show the concern about financing the sector.

There is very good data available about the current situation, progress and performance of the sector, particularly on finance. Reliable data is available to all the stakeholders on the sources and flows of the financial resources allocated to the sector over the last few years, and its management and funding mechanisms. Thus, the supply of money is well known. The same could be said about the demand for money based on recent estimates of the investment needs to achieve 24 of the 42 key performance indicators set for the water and environment sector to monitor progress.

However, the supply-demand analysis shows a huge funding gap. The current annual resources to the overall water and environment sector needs to be multiplied by nine times, or about five times if for the WASH sector only (see chapter 5.1).

A conservative scenario of business as usual (BAU) based on a moderate annual growth rate of 3% of the actual level of financial resources allocated to the sector, would not achieve the SDGs, which are incorporated in the performance indicators, by 2030. If Uganda is to meet both the international standards agreed upon in the SDGs and the priorities defined by the water and environment sector, it will require funding of almost UGX 5 trillion in 2018 and increasing to almost UGX 10 trillion by 2030, accounting for population growth.

Some of the presentations at the 2018 JSR refer to the lack of financial resources as a major issue affecting the sector and call upon the Government of Uganda (GOU) to allocate more resources. The recommendations made through the findings of the TrackFin Initiative (see chapter 8.1) also focuses on the increase in the amount of the national budget allocated to the sector. However, these reports do not identify the reasons for such a huge funding gap or mention the difficulties in mobilising more resources and solutions to address the issue.

The finance assessment undertaken by the consultant thus aims to identify the main reasons for the lack of financial resources and propose solutions at macro level that would require a wide-ranging dialogue with the GOU, namely the Ministry of Water and Environment (MWE), and the sector stakeholders.

In parallel, the consultant also proposes micro level actions and a follow-up assessment to show in the short term the feasibility of the proposed solutions through demonstration, replication and scale-up in the country.

With the decentralisation of power to local government, the service provision framework became highly fragmented. Uganda has 498 urban centres comprising one city, 55 municipalities and 442 town councils and town boards. Further, there are more than 1,100 rural growth centres. As in many countries, local authorities are not able to access the minimum capacity, skills and professionalism required to create their own utilities and provide good WASH services to the population. Public Private Partnerships (PPP) were promoted in Uganda using local private sector providers, but their performance depends on the capacity of the local authorities to regulate private

companies. A low-quality service caused by the underperformance of the private sector impacts negatively on users' willingness to pay and consequently the tariffs that could potentially be used to cover at least O&M costs.

The creation of regional Umbrella Organisations (UOs) in six regions to support the local authorities was a positive move but limited by its support role. **To address this, in 2017 the UOs were reorganised into six Water Authorities (UWAs) which were responsible to manage the WASH systems in these regions.** The Government gazetted the transfer of 434 local service providers to the new UWAs in areas not covered by the NWSC. The UWAs' performance improved significantly in their first year of operation (see chapter 4.5), but they would still benefit from capacity building to further improve (see programmes proposed in the JWESPP II - chapter 6.5).

When considering the three main financial resources – the '3Ts' of Taxes, Transfers and Tariffs – it becomes clear that **the main sources of finance to the sector are taxes and transfers.** Taxes are paid by national taxpayers into the national budget, and transfers by international taxpayers through Overseas Development Assistance (ODA) and philanthropic contributions (see chapter 6.3). These two sources are constrained by the limits on government tax raising and competition with other national sectors such as health, education, security or transport. The data contained in this report confirm this constraint. It also shows new priorities in the allocation of subsidies by international donors towards other international aid priorities such as food security, immigration or climate change mitigation.

In view of the limitations to increasing taxes and transfers allocated to the sector, **there is a need to raise awareness and pay greater attention to the key role of the third T – tariffs – in mobilising additional resources to the sector.** Uganda set up a sound tariff policy in 2009 but neither later documentation nor a clear cost recovery strategy could be found.

The lack of economic regulation in the sector also hinders progress towards a sound financing policy and strategy. Tariffs are approved at local level for each service provider with no consideration for solidarity at regional level to compensate for affordability constraints in areas with lower income earning populations, for example the income difference between urban and rural, or higher unit cost of service provision. The situation could be evened out by following NWSC's example and introducing cross-subsidisation within the service area of each of the new Umbrella Water Authorities.

The national Government channels most of the budgeted resources as grants to the local government to build new infrastructure or undertake major rehabilitation. This would be fine if the work would serve a population who cannot afford tariffs above the utilities' O&M costs. However, no cost or affordability analysis was found to justify this. Consequently, there is a lack of availability of grants to implement new infrastructure for lower income population.

The GOU also borrows loans from international lenders (repayable finance) and forwards it as grants to the NWSC. The NWSC does not contribute to the debt servicing, thereby reducing the amount of financial resources which could otherwise be used as grants by the GOU to support the CapEx on new infrastructure to unserved groups.

This means that all the large investments in the sector, including the debt service of repayable finance, is fully derived from taxes and transfers. Only recently was a new investment programme (SCAP 100) launched that invests in unserved areas and improves existing WASH facilities whose funds come in part from NWSC revenues coming from users' tariffs.

The World Bank undertook a study to assess the borrowing capacity of NWSC. It issued bonds to estimate the NWSC's borrowing capacity, but no affordability analysis was found to justify the limits that are imposed to an increase of the NWSC tariffs. The study focused on issuing bonds as a way of enabling borrowing from the national banking sector or from the international market. However, a smoother and more favourable option could be concessional loans borrowed by the Government and progressively repaid by NWSC through on-lend agreements with the exchange risk borne by the Government.

One of the main proposals suggested in this report is raising awareness of and drawing attention to the role of the 3Ts in mobilising additional financial resources; the fiscal constraints on increasing Government contributions through taxes and transfers; and, the need to assess the potential of tariffs for that purpose. An affordability analysis could be undertaken to study the most appropriate tariff structure for each UWA's service areas at regional level for use in cross-subsidisation.

Most of the population lives in areas served by the UWAs. They are largely rural, unserved and lower-income households. Moreover, in view of the high performance of NWSC, capacity building support should target the UWAs and focus on developing regulatory functions at regional level after which a national regulator could be set up.

The Action Plan outlined in chapter 9 proposes supporting the UWAs by strengthening their creditworthiness. This would enable the current revolving facilities to attract and mobilise more financial resources to invest on new infrastructure in unserved areas and rehabilitate larger poorly performing facilities.

The Action Plan's strategy considers the need to achieve quick progress to show results in the short term that could attract support for the UWAs at political and macro level. The proposal is thus to first focus on one mature UWA that has the skills and the capacity to progress and improve its actions and performance quickly. This would create the conditions needed to demonstrate success and replicate it to other UWAs, and eventually scale-up to the entire Uganda water sector.

1 INTRODUCTION

IRC commissioned the consultant to identify the main constraints on the WASH sectors in three countries (Uganda, Rwanda and Ethiopia) to attract additional finance to the sector. Each of the countries has its own set of macro financing opportunities and challenges, and the assessment makes explicit how to overcome the institutional, organisational and legal constraints to attract more public and private finance to the water sector, and primarily the rural water sector.

This report assesses the WASH sector in Uganda following a mission to Kampala by the expert, José Frade, from 1 to 5 October 2018 with the support of Geoffrey Kato from the IRC Uganda office. They held interviews with representatives of the main stakeholders listed in Appendix 1. A list of the documents made available and consulted is presented in Appendix 2.

The findings form the basis on which a decision can be made on whether there is scope to undertake actions and develop facilities to attract and mobilise additional financial resources to the sector.

2 ASSESSMENT METHODOLOGY

The assessment methodology consists of the following stages presented sequentially in the report.

STAGE 1: THE SECTOR

1.1: Country sector policy, strategy and planning

Before focusing on the main objective of the assessment – identifying ways to attract and mobilise more financial resources to the sector – it is important to understand the key ‘instruments’ that drive the sector: the policy followed by the strategy and the planning.

Planning cannot be done without a sector strategy that in turn is devised to give form to a policy that is often based on a vision for a sector and broader country objectives such as economic development, poverty reduction or climate change action. These instruments can create the conditions for fostering consensus among sector stakeholders. They promote the stakeholders’ involvement while minimising the risk of diverging approaches and wrong practices in implementing programmes.

Another important aspect is to compare the sector’s key instruments to the reality on the ground to try to understand if a major issue is the result of the absence of a policy, strategy or plan, or a wrong interpretation of these or non-respect of them. One example that is key to the objective of the finance assessment is if the tariff and cost recovery policy is not adequately applied in most of the countries.

1.2: Institutional and organisational/service provision framework

The instruments mentioned above may be sound and able to make the sector sustainable, but their outcomes are entirely dependent on the individuals who apply them in the sector’s governance structure. Their capacities, procedures and practice determine the sector’s performance. The decentralisation process is relevant as a starting point but without skilled and competent decentralised entities, the sector could be led into low performance and the limited absorption capacity of available financial resources. Within the institutional framework, the existence or absence of a key public entity that acts as a regulator could influence the outcome. But the way the regulatory role is played is also a determinant and could have the opposite or negative impact on the expectations associated with the economic regulation of the sector.

The organisational framework of WASH service provision requires particular attention as bottlenecks to financial flows and consequently low absorption capacity are often associated with the low performance of the service providers. Low performance also negatively impacts cost recovery as it requires higher tariffs than necessary to cover O&M costs. In turn, poor efficiency and the lack of scale and sufficient cash flow generated by limited tariff revenues lower the creditworthiness of the utility which will thus not be able to attract additional finance.

Worldwide national administrative and sector institutional decentralisation has led to a highly fragmented framework, making service provision complicated. This has resulted in poor performance and is a major cause of the current lack of financial resources to sustain the sector and achieve the SDG 6.

The small scale of the utilities and/or their insufficient cash flow generated from tariff revenues have affected creditworthiness, and this has been a major constraint in attracting additional resources.

1.3: Current status of the sector

The assessment of the current status of the sector, namely service coverage, gaps and trends identify the baseline, factors or variables that could influence the capacity to attract and mobilise more financial resources.

STAGE 2: THE INVESTMENT NEEDS AND FINANCIAL RESOURCES

2.1: Demand and supply of financial resources, management of the flow of the resources, absorption capacity and funding gap

The purpose of finding ways to attract and mobilise additional financial resources could not be achieved by looking only to the current resources allocated to sector and identify other available sources and financial mechanisms, which is often the approach followed in similar assessments.

In finding ways to attract and mobilise additional financial resources, most assessments only look at the current resources allocated to sector and try to identify other available sources and financial mechanisms. This is too limiting as the demand side is crucial. Accurate information must be gathered on the investment needs, the financing gap and the accuracy of the baseline, that is, the WASH service coverage and the investment estimate. Service targets are often set according to international commitments such as the SDGs, and national indicators are set according to political objectives. But these do not take into consideration relevant constraints such as environmental constraints, stricter quality requirements or the capital intensive nature of the water sector.

The absorption capacity of the financial resources is another important aspect that needs to be assessed. If the capacity is low, the priority should be to remove the bottlenecks in the flow of resources from supply to demand before increasing substantially the supply of financial resources.

The management of resources and how that management is performed are major aspects that influence the absorption. The financial instruments used to channel the resources are also important. The WASH sector tends to be conservative and does not adopt successful instruments from other public infrastructure sectors. The very low creditworthiness of the sector caused by the low performance of service providers and inadequate tariff and cost recovery policies and practices, does not favour innovative mechanisms.

2.2: Main issues and constraints/bottlenecks

As mentioned above, it is important to identify the issues and constraints/bottlenecks and their degree of relevance and severity. This will help define the priorities for the use of additional resources. This is important for defining the scope of the Action Plan and the follow-up of this assessment.

STAGE 3: THE WAY FORWARD

3.1: Ways to address the main issues and remove the financial constraints

Based on the assessment undertaken in stages 1 and 2, the best solutions to help address the main issues and remove the financial constraints can be defined. However, the scale of the actions could vary from the national level to the local level such as the District Wide Approach (DWA) which could facilitate a bottom-up sustainable approach requiring less time and/or at lower cost. Some of the solutions go beyond the scope of the Action Plan proposed in this report for reasons indicated in the strategy (chapter 8.3) such as limited funding to support the Plan. However, small actions of short duration, if focused on quick wins and having a demonstration and replication effect, could support broader solutions that address the sector's main financial issues. They may also promote national dialogue on the issues identified and solutions proposed.

3.1: Proposed Action Plan

The Action Plan should have a clear strategy that will be the basis of the expected output, duration and phasing.

3 SECTOR POLICY, STRATEGY AND PLANNING

The sector is well structured and is based on a wide range of policies, strategies and planning involving stakeholder participation and supported by data updated every year and made available on the Government's websites.

The sector is governed by the National Water Policy of 1997 and the National Water Act of 1999 and is complemented by other policy documents, namely the Wetlands Policy (1995), the Land Use Policy, National Health Policy and Health Sector Strategic Plan (1999), the National Environmental Health Policy (2005), the School Health Policy (2006), the National Gender Policy (1997), the National Irrigation Policy 2017, and the Uganda National Climate Change Policy 2015.

3.1 THE NDP AND SSIP

In April 2015, preparation of the 2nd National Development Plan (NDP-II) for the 2015-2020 period was concluded. It was based on the lessons from the first NDP and aimed to move Uganda from a low-income status of a per capita income of USD 788 in 2014 towards a middle-income status of USD 1,033 by 2020.

The NDP-II, with the theme 'Strengthening Uganda's Competitiveness for Sustainable Wealth Creation, inclusive Growth and Employment' is Uganda's overarching national planning framework for this period, and represents a shift in focus towards economic growth, a priority that is reflected in the Water and Environment Strategic Sector Investment Plan (SSIP) for the 2015/16-2019/20 period.

The Water and Environment sector consists of two sub-sectors: Water Supply and Sanitation (WSS) and Environment and Natural Resources (ENR). The WSS sub-sector comprises water resources management, urban and rural water supply and sanitation, and water for production. The ENR sub-sector comprises environmental management including forests, wetlands and aquatic resources, and weather and climate. This report focuses on the rural and urban water supply and sanitation components of the WSS sub-sector.

The NDP II identifies the provision of adequate water supply and improved sanitation as a key priority area for promoting sustainable wealth creation and inclusive growth. Both the NDP and the SSSIP are fully aligned and assume that the water supply coverage will increase over the period to their targets of 79% and 100% in rural and urban areas respectively, with 95% functionality. They will achieve this by ensuring that each village has a safe water supply by the end of the period. The sanitation and hygiene levels in rural areas are expected to rise and sewerage coverage in urban areas to increase to up to 95%.

The sector planning and budgeting is coordinated by the Policy and Planning Department of MWE who, upon completion of the annual budget and plans, submits them to the Water and Environment Sector Working Group (WESWG) for approval before onward submission to Parliament through the Ministry of Finance. WESWG is supported by the two sub-sector WSS and ENR working groups in coordinating, implementing and monitoring activities at sub-sector level to ensure efficient and effective service delivery. In addition, there are seven functional sub-groups (FSGs) that support the management of cross-cutting issues. These are: Finance, Good Governance, Sector Capacity Development, De-concentrated Structures, Sanitation, Catchment Management, and Climate Change. The FSGs include all the sector stakeholders: development partners, civil society organisations, other line ministries, departments and agencies, the private sector and local government.

WESWG provides policy and technical guidance and has representatives from key sector institutions – the GOU, Development Partners (DPs) and non-governmental organisations (NGOs).

3.2 THE JWESSP

The Joint Water and Environment Sector Support Programme phase two (JWESSP-II) for the period 2018-2023 replaces the JWESSP phase one for the period 2013-2018. The JWESSP-II is implemented by the Ministry of Water and Environment (MWE) with support from the DPs. The programme aims to meet sector targets in line with the SDGs and the NDP by providing access to a safe water supply to 6.7 million people, 4.4 million in rural and 2.3 million in urban areas, as well as increasing access to improved sanitation for the same target population with the level of funding expected at present.

The JWESSP-II constitutes the framework for collaboration between DPs and the GOU, and comprise all on-budget support under consideration (see chapter 6.2). It takes on a coordination role rather than acting as a joint financing framework. As such, it will support the achievement of the SSIP 2018-2030 targets which are in line with the international SDG and national NDP overarching target frameworks. JWESSP-II's progress is monitored through the revised Sector Performance Measurement Framework, which is also aligned to the SDGs. JWESSP-II's added value is considered to be the framework for coordinated support, strong accountability, and the monitoring of progress on sector targets.

3.3 INSTITUTIONAL AND LEGAL FRAMEWORK

The institutional sector framework consists of the following.

- The Ministry of Water and Environment (MWE) with the Directorates for Water Development (DWD), Water Resources Management (DWRM) and Environmental Affairs (DEA) as part of the DWD.
- Local governments (District and Town Councils), which are legally in charge of service delivery under the Decentralisation Act.
- A number of de-concentrated support structures related to MWE which are at different stages of institutional establishment. These include: technical support units (TSUs); water supply development facilities (WSDFs); Water Management Zones (WMZs); and six umbrella organisations which were recently transformed into regional umbrella water authorities (UWAs).
- Four semi-autonomous agencies: (i) National Water & Sewerage Corporation (NWSC) for urban water supply and sewerage; (ii) National Environment Management Authority (NEMA) for environmental management; (iii) National Forestry Authority (NFA) for forestry management in the Government's Central Forest Reserves; and (iv) the Uganda National Meteorological Authority (UNMA) for weather and climate services.

Activities undertaken in Sanitation and Water for Production that mainly focus on agricultural and animal production are coordinated with other line ministries, including the Ministries of Health, Education & Sports, Agriculture, Animal Industry & Fisheries, Local Governments, and Energy.

Other stakeholders involved in the national dialogue with governmental bodies are the NGOs and CBOs that are coordinated through UWASNET, the ENR-CSO Network and Water User Committees/Associations.

The legal framework is guided by the following sector related documents: i) The Water Act, Cap 152; ii) The Environment Act, Cap 153; iii) The National Water and Sewerage Corporation Act, Cap 317; iv) The Local Governments Act, Cap 243; v) The Public Health Act (1964) and; vi) The National Meteorological Authority Act (2012).

3.4 REGULATION

In the absence of a fully autonomous regulator, the sector's regulatory functions are undertaken by the MWE through its Water Utility Regulation Department. Some of the latter's duties, activities and results achieved in the last FY were reported in the 2018 Joint Sector Review as follows:

- Conducted Regional Performance Review of Water Supply in six UWAs and NWSC.
- Developed Framework of Sanitation Regulation to harmonise the roles of different actors, guide regulation of sanitation, and guide the implementation and provision of sanitation interventions.
- Conducted Customer Satisfaction Survey. The Survey indicated a satisfaction level of 74% for the six UWAs. Consumers are generally satisfied but are mainly concerned about high water tariffs, hence the need for innovative tariff bands and a comprehensive tariff review.
- Monitored pro-poor interventions by NWSC which constructed 623 pro-poor facilities. The MWE decentralised units and the UWAs constructed 301 pro-poor facilities.
- A Review Team was established to assess NWSC performance under Contract 5 valid for the period July 2015 to June 2018. The NWSC has generally exceeded its targets except for the Non-Revenue Water (NRW) target for the Kampala water supply system.
- The Review and finalisation of the new Performance Contract 6 for NWSC and the preparation of the UWAs Performance Contract are in the final stages.

There is also a Water Resources Regulation Department.

4 CURRENT STATUS OF THE SECTOR

4.1 SERVICE PROVISION

According to demographic statistics and related reports, the country has a significant fast growing population problem. Uganda's population grew from 9.5 million people in 1969 to about 35 million in 2014. Over the last 12 years since the last census in September 2002, the population has increased by 10.6 million. In 2014, Uganda's median age of 15 years was the lowest in the world and it had the fifth highest total fertility rate at about 6 children born per woman. The 2016 population was estimated at 41.5 million.

Uganda's urban population is also growing fast and estimated to increase to over 20 million by 2040. Providing the infrastructure for safe WASH universal services is a major challenge for the sector that explains part of the huge funding gap referred in chapter 6.5. Despite an increase in the allocation of the national budget to the water sector, the funds are not enough to cope with the population growth. As a result, the coverage rate of improved WASH services is stagnant and the proportion of safely managed services is dropping.

Uganda's level of urbanisation may still be relatively low compared to global trends, but the high population growth in urban areas is outpacing gains in infrastructure development. This trend is unlikely to be reversed in the short term as further urbanisation is an explicit strategic national goal, as stated in the NDP's Vision 2040.

NDP II aims to increase access to safe water in urban areas to 95% (100% in NWSC towns) by 2020. Beyond this extremely ambitious target for the sub-sector, the Sustainable Development Goals (SDG 6.1) aim to 'achieve universal and equitable access to safe and affordable drinking water for all' by 2030. This raises the bar even further as the SDG indicator the 'proportion of the population using safely managed drinking water services' implies that water is located on premises, available when needed and free of contamination. To achieve this goal by 2030 as well as similar levels in the sanitation sub-sector, it is estimated (see chapter 5) that the current financial resources channelled to the WASH sector needs to be increased five times.

The international Joint Monitoring Programme (JMP, WHO/UNICEF) uses household survey data to calculate the indicator values. The JMP data available for the Uganda urban areas in 2015 were:

- basic water: 72.6%,
- safely managed water: 17.5%.

Safely Managed Water, according to the SDG/JMP definition, is an 'improved source located on premises, available when needed, and free from microbiological and priority chemical contamination'. In practice, this is calculated as the percentage of the population that uses piped water with private connections (house connections or yard taps) from systems that meet the targets for continuity (hours of supply) and water quality (free of contamination). Point water sources are generally not taken into account in urban areas as they are usually not located on the users' premises and are frequently contaminated.

The new SSIP (March 2018) clearly demonstrates that the sector goals defined for the WSS and ENR sub-sectors cannot be achieved without a substantial increase in the rate of investment. Apart from investment in new infrastructure, substantial investments are needed to rehabilitate or replace infrastructure that has reached the end of its design life, or that has become insufficient to cover the growing demand. If not done, there will be an intergenerational issue as the investment costs required for rehabilitation now are postponed and transferred to future generations. This issue will be aggravated in the medium-term should the population growth rate decrease. Finally, effective operation and maintenance and regulatory frameworks are needed to ensure the sustainability and affordability of water and sewerage services in the longer term.

In the 2018 Joint Sector Review (JSR), the DWD of the MWE presented the following main data about the current situation of the WASH sector.

	Water supply		Sewerage	Sanitation ^(g)	
	Improved ^(a)	Safe ^(b)		Improved	Safe
Urban	77 % ^(c)	20 % ^(d)	n.a.	n.a	n.a
Rural	70 % ^(e)	n.a./5 ^(f)	-	79% ^(h)	n.a

(a) % of population using an improved drinking water source provided collection time is ≤30 minutes

(b) % of population using an improved source located on premises, available when needed, and free of contamination

(c) higher than 2017 = 71%, apparent increase mainly due to new NWSC baseline survey

(d) based on the estimate from number of private connections and service quality

(e) similar to value of 2017 due to population growth

(f) not available, about 5% according to recent household survey

(g) data extracted from the SPR (see chapter 5)

(h) lower than 2017 = 80%

Other data provided in the report include the following.

- **Villages and urban areas:** the percentage of villages with a source of safe water supply in rural areas is 66%; coverage in urban LC1s is not yet available, but was 64% in 2017.
- **Piped water services:** out of 1,576 small towns and rural growth centres, 779 have piped water services (NWSC, umbrella organisations or other types of management) and 797 are still without piped water.
- **Sustainable Operation & Maintenance, Functionality:** in rural areas, 85% of water sources were functional at the time of the spot check with the same value as 2017. In urban areas, the percentage of piped water service availability in schemes managed by UWAs in small towns and rural growth centres (RGCs) was 93%. Data is not available for NWSC areas of supply.
- **Management:** in rural areas, 89% of water points now have functional committees. This was 88% in 2017. The percentage of piped water schemes with formal contract-based management structures is rapidly increasing due to allocation to Umbrella Authorities or NWSC (see chapter 4.4 and 4.5).

4.2 PROGRESS MADE BY THE SECTOR

The Water and Environment Sector Performance Report (SPR) is the most important document for assessing the performance of the water and environment sector. It provides an annual assessment of investments, targets, achievements, outputs and highlights the major challenges or strategic issues which affect performance. The report includes data and analysis on the agreed key indicators in the following water sub-sector performance themes:

- access, functionality and equity of improved water supplies and sanitation;
- hygiene;
- per capita investment costs;
- water quality;
- water storage; and,
- gender and community management.

The SPR also includes essential information on Uganda's environment and natural resources and a description of the efforts being made to ensure the sustainability of the ecosystems in the country.

The sector has defined specific undertakings for each year that are assessed during the annual JSR. The results are reported in the SPR. The sector also has 24 performance indicators, of which half refer directly to the WASH services (see chapter 5.1).

Relevant facts in the 2018 SPR are listed below. Note, some of the data were mentioned in chapter 4.1.

- The population with access to an improved drinking water source in urban areas increased from 71% in June 2017 to 77% in June 2018. This apparent increase is partly due to a new baseline survey produced for the urban areas covered by NWSC where coverage was 83.7% compared to 79% in 2017. Access to safely managed water (available on premises) was estimated at 20%. 515 villages (local councils) in urban areas had an improved water source. Functionality in small towns and rural growth centres increased from 92% in June 2017 to 93% in June 2018.
- The average per capita investment cost for new water facilities was USD 58. This was slightly lower than USD 62 in the FY 2016/17.
- As of June 2018, the national water coverage with improved services in rural areas was estimated at 70%. There was no change in coverage from that of June 2017. Of the 57,974 rural villages in Uganda, 38,183 (66%) had water sources as of June 2018.
- The functionality for rural water supplies remained the same (85%) as last financial year.
- According to district reports, access to rural improved sanitation decreased slightly from 80% in FY 2016/17 to 79%. The coverage of hand washing facilities also slightly decreased from 37% in FY 2016/17 to 36.5%.
- Inadequate financing of the sector remains a major challenge and affects the fulfilment of core functions. As a result, the targets under the Strategic Sector Investment Plan (2018-2030), the NDP II \ and Presidential Directives (e.g. one water source per village) are unlikely to be met.
- Capacity gaps in the sector remain a critical issue, particularly in newly created local governments and UWAs. The sector capacity development strategy and plan were prepared but cannot be fully implemented because of inadequate resources.

A specific undertaking defined for the FY 2017/18 is relevant for the proposed Action Plan in chapter 9: 'Implement the criteria for the transfer of water and sanitation schemes to NWSC and regional umbrella utilities and also demonstrate their respective performance improvements by the end of FY2017/18'. The SPR refers to the following achievements:

- i) current guidelines and criteria for gazetting schemes to NWSC have been reviewed and challenges have been documented;
- ii) performance review meetings have been carried out with the participation of Umbrella Authorities and selected managers of NWSC schemes; and,
- iii) proposed criteria for the transfer of towns to Umbrella Authorities have been developed.

In the JSR in September 2018, the DPs made the following relevant comments.

"With regard to the overall sector budget for 2017/18 as compared to last financial year, it appears that the sector budget was increased substantially from UGX 1,098 billion to 1,770 billion. However, on close scrutiny of the budget structure, the increment is a result of inclusion of Appropriation in Aid (AIA) with effect from FY 2016/17 in the sector budget. However, this AIA is in principle revenue generated at source and mainly used by NWSC to maintain water supplies and therefore not available to finance other investments in the sector. In reality, with exclusion of AIA, the annual budget was only increased modestly from UGX 744 to 881 billion (approx. 18%). Such analysis needs to be done and reflected in the chapter on sector financing.

We also acknowledge the initial work achieved towards business planning for UAs. Furthermore, the increase in revenue collection from piped water schemes through NWSC and UAs as a result of reforms in the urban water supply sub sector is commendable. As DPs, we acknowledge the two water utility options (NWSC and UAs) as serving different markets. In that regard, a strategic framework for O&M is required which goes beyond Undertaking No. 8. It is necessary to have a countrywide tariff setting mechanism for all piped water schemes. We envisage optional funding sources including subsidies, a revolving fund facility and a growing professionalisation of the Umbrella Authorities. This would also help to control the ad-hoc pricing of water by vendors which currently has an adverse effect on the poor.

As we seek additional funding, we look forward to optimum efficiency in terms of absorption as articulated by the officials from the National Planning Authority.

The report reflects a notable decline from 89% to 77% in the Ministry's procurement performance as compared to the previous financial year. This is attributed to delayed initiation of procurements and failure to complete procurements in a timely basis. The Ministry should pay greater attention in this area in order to optimise efficiency in utilisation of existing resources.

On another note, there seems to be insufficient attention paid to the regulation function of the Ministry yet this function is critical in the success of utility management in the sector. We recommend the sector should accord increased attention regulation in order to promote effective utility management.

On urban sanitation, we would be pleased to hear more about the outcome of the clustering approach of towns for faecal sludge treatment plants and the entire chain of faecal sludge management.

We remain concerned about the quality of drinking water where 1/3 of the sampled water sources in rural areas and small towns is not fit for drinking as well as 13% in the large towns managed by NWSC.

With regard to rural water supply, we observe a decrease in the number of people served over the period, yet there is an exponential increase in population, many of whom live in rural areas. With stagnating funding to district local governments, what is the way forward in terms of technological options aimed at achieving higher service levels?"

4.3 SERVICE PROVIDERS FRAMEWORK

Urban areas, according to the definition used by the Uganda Bureau of Statistics (UBOS), are gazetted urban councils such as Kampala Capital City, municipalities, town councils and town boards. Rural growth centres are considered rural when they are located in a rural sub-county. These definitions are used to calculate urban and rural access to safe water supply. However, all the actors in the urban water supply extend their services into rural areas with a mix of mandates for service providers.

According to data provided in documents listed in Appendix 2, Uganda has 498 urban centres comprising one city, 55 municipalities and 442 town councils and town boards estimated at hosting about 10 million people, or 21% of the Ugandan population, in 2016. More than 1,100 rural growth centres (RGC), with a population of about 3.3 million, are expected to be gazetted as urban centres in the near future.

Large towns are classified as those gazetted for operation by the NWSC, which provides water and sewerage services. NWSC currently operates in 110 'areas'. The NWSC coverage area extends beyond the above urban boundaries.

The reports state that water supply and sanitation management arrangements are more streamlined in the small towns than in the rural growth centres. The small towns are the gazetted town councils, town boards and district headquarters. This category therefore includes all centres with populations of above 5,000 and those outside NWSC. All other centres with populations below 5,000 and above 2,000 are referred to as rural growth centres. Currently, there are over 200 small towns, rural growth centres and large gravity flow schemes.

The Local Governments Act vests responsibility for the provision of water services in small towns to local government. The most appropriate local governments are then appointed as Water Authorities by the minister responsible for water for their respective areas in accordance with the Water Act. Private operators manage the system on behalf of the Water Authorities under a management contract between the two parties, and are remunerated through a share of revenues from water sales. The Water Authorities are supported by decentralised units of the MWE in terms of infrastructure investment and technical advice. The Performance Contract, as stipulated in the Water Act, defines the roles and responsibilities between the MWE and the Water Authorities.

4.4 NWSC

The National Water and Sewerage Corporation (NWSC) serves the larger urban areas and an increasing number of customers in rural areas. The piped water schemes implemented by Water and Sanitation Development Facilities (WSDFs) that were supported by Umbrella Organisations often supply rural growth centres that are not gazetted as urban administrative areas. The urban-rural distinction is unclear and is related more to responsibilities than to administrative divisions or technologies used. The urban service coverage calculation often includes connections that urban service providers have outside their urban administrative units, which puts them in the rural area category. The result is that up to FY 2014/15 NWSC, included people in its urban coverage were also included in rural coverage. From FY2015/16 onwards, the urban sub-sector has tried to exclude rural coverage provided by NWSC from urban coverage.

The NWSC is an autonomous public utility established under an Act of Parliament Cap 317 of 1995 and established under the supervision of the Minister of MWE. The Board of Directors steers and guides the entity and its day to day affairs are run by a Managing Director. The Managing Director reports to the Board which in turn reports to the Minister. The Board approves the Corporation Plan which guides NWSC's wider operations and which is approved by the Minister in respect of government and public interests.

In the 2018 JSR, the NWSC reported the following key achievements.

- Growth in geographical coverage from 218 to 237 towns, and by 50,341 connections in the customer base, bringing the total number of subscribers to 587,863. For pro-poor interventions, the number of new public stand posts installed by NWSC increased from 1,164 to 2,065 covering 2,123 villages.
- Annual turnover increased from UGX 321 billion to UGX 388 billion (equivalent to about USD 104 million); operating profit before depreciation grew from UGX 70 billion to UGX 90 billion (USD 24 million) and profit after depreciation was UGX 61 billion (USD 16 million). Average monthly billing grew from UGX 29 billion to UGX 33 billion (USD 9 million). Collection grew from UGX 27 billion to UGX 32 billion.
- An increase in the total water network length by 2,021 km and the sewer network length by 24 km; and the volume of water produced increased from 121 million m³ to 126 million m³.
- The increase in new water connections and capital works implemented by NWSC was attributed to the implementation of SCAP 100 (see chapter 5.2). The rapid growth was due to mains extensions and the upgrading of water production and supply infrastructure, especially in the newly taken over towns as indicated in the figures above, led to the increase of water sales.
- An increase on the return on capital was due to cost optimisation measures that led to the increase in profits. The NWSC Act Cap 317 1995 requires the Corporation to operate on sound commercial practice and ensures that the revenues are sufficient to provide for depreciation, amortisation, operation and maintenance costs, with a reasonable return on investment.

The NWSC cited the following main service provision and financing objectives under its 'Way Forward'.

- Reduce Non-Revenue-Water (NRW) by putting systems and programmes in place, and implementing priority investments.
- Reduce the accumulation of Government arrears by continuously engaging Government to ensure adequate budgeting and the timely release of funds.
- Expand the implementation of new infrastructure through NWSC's development programmes; fast track the ongoing projects; and improve on investment efficiency.
- Increase investment in infrastructure by pursuing alternative financing options and advocate for greater allocation of Government counterpart funding.

4.5 REGIONAL WATER AUTHORITIES (UWAS)

The WASH services outside the area under the responsibility of the NWSC have been supported by regional umbrella organisations that offer backstopping support to the management of the existing facilities. In July 2017, the MWE gazetted the umbrella organisations as water authorities. They are now designated as Umbrella Water Authorities (UWAs) and are responsible for water and sanitation service provision in their gazetted areas.

The UWAs are registered under the Company Act of Uganda and each is governed by its respective General Assembly of its members and an Executive Committee that includes representatives from the MWE. Currently, each UWA's operating unit is a secretariat headed by an Umbrella Manager. The six UWAs are: Central (Wakiso), Eastern (Mbale), Karamoja (Moroto), Mid-Western (Kyenjojo), Northern (Lira) and South Western (Kabale).

The new UWA management model was introduced because of the unsatisfactory quality of the sustainability and service of previous management models. In their supporting role, the UWAs were mostly occupied with 'fire-fighting' and had insufficient resources to carry out their work. They were dependent on donor funding and GOU grants to meet the costs of their services.

Local revenue collection was insufficient and no savings were made to pay for repairs, capital maintenance and extension investments. As a result, the infrastructure deteriorated and service quality was, and still is, often poor. Regulation by the UWAs was not effective given the large number of small water entities at local level. The new umbrella model hopes to achieve sustainability by introducing professional management practices, emphasising preventive maintenance and raising revenue collection for investment in maintaining, upgrading and expanding the infrastructure.

The 2018 JSR reported positive trends in the progress made by the new UWAs. Between August 2017 and August 2018, the first year of operation when the UWAs had direct management responsibilities over 434 towns/schemes, it supplied about 2.5 people with water and sanitation facilities. Some of its encouraging performance indicators are as follows:

- The number of connections is steadily increasing by more than 1,700 or 21% in the first group of 74 schemes that were taken over. The demand for new connections is high but the rate of increase is limited as many interested customers cannot pay the full costs of being connected.
- Revenue collection is up by 51% in the same first group of towns (since Oct 2017). Collection efficiency is at 94% and mostly uses electronic collection systems. The revenues collected exceeding local operation costs in five of the six UWAs, creating progressive financial sustainability. Revenue collections are an average of 58% above direct local operation costs (energy costs, scheme operators' remuneration etc.) and the surplus can now be used to address the backlog of investments, including repairs, extensions and back payments to revolving funds (see chapter 6.2.3 for more details on the revolving funds). Total collections exceeded UGX 500 million in August 2018. Eighty-three percent of the collections are done using electronic systems (EzeeMoney).
- Non-revenue water (NRW) decreased in the first group of towns from 44% to 36%, mainly due to improved management practices. Further reductions are expected when funds become available for the investments that are needed to reduce physical losses.
- Repairs, extensions and metering investments are ongoing using a Revolving Facility (see chapter 6.2.3).
- The continuity of supply is estimated at a 91% average and is improving. Ninety percent of samples comply with water quality standards (711 samples taken in the fourth quarter of FY 2017/18). About 95% of UWA managed schemes are submitting monthly performance reports through the Utility Performance Management and Information System (UPMIS).
- Access to improved or unimproved sanitation facilities is stable with a coverage rate of 79% (2017 = 80%) in rural areas and 87% (2017 = 85%) in urban areas. The rate of improved sanitation facilities (not shared with other households) in urban areas is 36%. Figures are not available for rural areas. The coverage of safely managed sanitation (improved facilities with safe emptying, transport and disposal/treatment) in small towns is 26%. Estimates are not available for rural areas. Open defecation in rural areas was slightly reduced from 9% to 8% in 2017.

The objectives that were defined for the new management model are also positive and are moving in the right direction. They include:

- a lean staffing structure with professionalised management that is regularly assessed by performance contracts;
- involvement of the local communities;
- local scheme operators that are directly contracted and supervised by the UWAs with systematic performance monitoring;
- more connections;
- improved back-end organisation with the introduction of electronic billing and revenue collection systems (EzeeMoney and other platforms planned), performance monitoring and asset management using a web-based information system (UPMIS);
- plans to further improve the back-end organisation in the near future through introducing other revenue collection systems and accounting software;
- procedures to meet full recovery of the O&M costs thereby becoming financially autonomous and independent of annual grant transfers from the national budget to subsidise the UWAs' annual budget;
- using the RF to invest in new infrastructure to expand WASH services and rehabilitate existing low performance facilities.

While the new UWA model is promising in many respects, it still has to cope with considerable challenges during the start-up phase. The staffing and logistical resources will need to be strengthened in order to ensure the adequate management of all the gazetted schemes without neglecting support to other schemes. The UWAs' resources are still limited while the expectations of the beneficiaries and other stakeholders are high. UWAs are furthermore expected to provide free support services to schemes they do not manage and which do not contribute to their operational budget.

The other key challenge is to meet the costs of the initial investments of the schemes taken over where often the most basic requirements are not yet met. Metering is another substantial investment need. Many schemes suffer from a serious investment backlog – resulting from ageing infrastructure and deferred maintenance – that cannot be met from the UWAs' own resources. Technical assistance (TA) is required to support part of the UWA launching process. To this end, in January 2018 the MWE requested support to develop Strategic Business Plans (SBPs) for the six UWAs. SBP are relevant in kick-starting the transitioning of the UWAs from their former role to a new active utility management role in water supply schemes.

The new UWAs have benefited from TA in the transition to water utility management and now have the following deliverables: i) the SBPs; ii) a performance management framework; and, iii) a costed roadmap. Several recommendations were made in June 2018 on follow-up actions to monitor the SBPs and the progress of the proposed KPIs in line with the strategic objectives. The objectives included to further reduce NRW; increase the water production customer base and revenues; and improve the water quality management.

The basis of MWE support for the UWAs is a Memorandum of Understanding and the expectation was that by July 2018, each UWA would have a performance-based incentive contract with the MWE. These performance-based incentive contracts define the roles and responsibilities, as well as the performance expectations of each of the parties. The Key Performance Indicators (KPIs) and targets of the contracts are aligned with the SBPs. This would bring about a culture of performance management.

To quickly conclude the performance contract signed between the Ministry and the UWAs, the recommendation was also to agree on a guarantee of the UWAs areas of operation. Other relevant objectives set by the TA were the strategy to reach cost recovery and the launching of the RF.

The RF was, and is being, used to generate funds for small to medium investments such as major repairs; equipment replacement; scheme extensions and capacity increase; and subsidising connections, metering and provision of water source protection. Up to August 2018, 90 eligible projects were approved, 47 of which were completed with the rest under construction. More than 80% of the initial seed funding of UGX 2.3 billion has been spent.

4.6 TECHNICAL SUPPORT UNITS

Technical Support Units (TSUs) are decentralised support structures of the Rural Water and Sanitation Department of the MWE to build capacity in the districts following decentralisation of rural water supply and sanitation services through District Water and Sanitation Conditional Grants. They were set up in eight locations around the country in 2002, with a ninth established in the north east for Karamoja in 2009. At present, approximately 35 professional staff are employed in the nine units. TSU functions include district level capacity building, supervision, monitoring and quality assurance.

According to the sector performance monitoring, even though the TSUs were designed as temporary structures, the actual development of the capacity at the district level has not happened to the extent expected, mainly due to a substantial expansion of a number of districts and staff turnover. The JWESSP-II is expected to fund the TSUs over a period of three to four years, meaning that the Government will need to take over the full funding of TSUs thereafter. The option of integrating the TSUs in the UWAs to strengthen their capacity is not mentioned in any document but might be worth consideration and analysis.

5 INVESTMENT NEEDS & PLAN (DEMAND)

5.1 THE SECTOR STRATEGIC INVESTMENT PLAN 2018-2030

Uganda's Water and Environment Sector recently developed a Strategic Sector Investment Plan (SSIP) to guide annual investments in the sector up to 2030. In order to meet the sector's targets across 24 indicators measuring its key activities – including the UN Sustainable Development Goals (SDG) commitments – the Water and Environment sector, including both the WSS and ENR sub-sectors, will need a large increase in funding. The estimate is that over nine times the current allocation of financial resources will be needed. In the absence of this funding increase, the Water and Environment Sector will have to make strategic trade-offs between investments to best use the limited funds available for each indicator.

The report listed in Appendix 2 presents the results of the SSIP study, including investment requirements to meet targets and strategic investment planning under limited funding scenarios.

The SSIP is using the current amount of funding allocated to the Water and Environment Sector in the FY 2016/17, which was estimated at the time of researching this report to be about UGX 800 billion (approx. USD 214 million) per year for investment. However, chapter 6.1 mentions a total budget allocation to the sector of approximately UGX 1,770.53 billion. About half this amount is AIA, a financial resource that, despite a clear definition (see chapter 6.2.2), has contradictory figures: it is mentioned as provided by the NWSC revenues but the NWSC annual turnover was UGX 388 billion, operating profit before depreciation was UGX 90 billion, and profit after depreciation was UGX 61 billion. These figures are well below the amount of UGX 889.8 billion indicated as AIA in chapter 6.1. Also see chapter 4.2 for comments on the topic raised by the DPs in the presentation to the 2018 JSR.

With the UGX 800 billion funding, the sector has managed to make progress in a number of indicators that track its performance across its major activities. The targets for these indicators are to be met by 2030. Of the 24 indicators included in the SSIP, 18 are directly related to SDGs, the UN global programme for poverty alleviation and environmental protection. The SSIP uses 24 of the 42 sector KPIs to monitor progress and has provided investment figures based on targets for those 24 indicators. Half of the indicators relate to targets set for the WASH sector.

Based on the sector investment modelling, the current level of funding, with an assumed moderate annual growth rate of 3%, will not be sufficient for the sector to meet its targets. The results of the analysis show that at the current level of funding, very few, if any, of the 24 indicator targets will be achieved by 2030. In order for Uganda to meet not only the international standards agreed upon in the SDGs, but also to meet the important priorities defined by the Water and Environment Sector, the Sector will require funding of almost UGX 5 trillion in 2018, increasing to almost UGX 10 trillion by 2030, accounting for population growth.

In conclusion, taking into consideration the SSIP funding requirements and accounting for external trends such as population growth, the sector will need an estimated average annual budget of almost UGX 7.6 trillion (about USD 2,250 million) over the next 12 years up to 2030. This is about nine times the present funding level. While capital investments make up the majority of the costs, a growing component of the total budget will also need to be devoted to O&M and replacement to keep up the functionality of growing and aging assets. By 2030, O&M and replacement are estimated to be about 16% of the total budget requirement. The sector needs to spend an average of UGX 150 billion per year on partial replacement and O&M of existing water supply infrastructure.

If considering only the investment needs for the WASH sector, an estimated total average annual budget of almost UGX 4.7 trillion (about USD 1,260 million) will be needed over the next 12 years up to 2030. This is about five times the present funding level. See the table below.

Indicator	2013-30 period (UGX billion)	Average annual (UGX billion)	2013-30 (USD M)	Average annual (USD M)	% of Total
Improved drinking water	4,100	315	1,098	84	6.7%
Improved sanitation	2,900	223	776	60	4.7%
Safely managed drinking water	23,000	1,769	6,158	474	37.6%
Safely managed sanitation	14,000	1,077	3,748	288	22.9%
Wastewater treatment	12,000	923	3,213	247	19.6%
Village water supply	1,900	146	509	39	3.1%
Urban water service functionality	90	7	24	2	0.1%
Functional rural water sources	360	28	96	7	0.6%
Handwashing at home	2,100	162	562	43	3.4%
Handwashing at school	720	55	193	15	1.2%
TOTAL	61,170	4,705	16,378	1,260	

The three indicators related to functionality of infrastructure/facilities (urban, rural, and water for production) are within 15% of their targets – the closest out of all the indicators. The sanitation subsector indicators are among the furthest from their targets as a group. The advanced coverage indicators such as safely managed drinking water and safely managed sanitation are currently well below the targets. These indicators will require a large amount of funding due to the combination of the large gap to close and high unit costs of achievement.

The unit gaps to achieving the 2030 targets in the WASH sector are shown in the table below.

Village water supply	47,349	villages
Functional rural water sources	68,785	rural water sources
Improved drinking water	28,780,503	people
Safely managed drinking water	52,272,805	people
Per capita investment cost	[reporting]	US dollars
Urban water service functionality	10,448	sources
Wastewater treatment	25,416,614	people
Improved sanitation	47,595,980	people
Safely managed sanitation	51,151,465	people
Handwashing at home	35,532,276	people
Handwashing at school	12,296,652	students
Compliance with water standards	643	samples

Under a ‘business as usual’ (BAU) funding scenario, assuming a 3% annual increase of the budget, the sector will not reach any of its 2030 targets. A 50% increase in annual funding will allow three targets to be met, leaving 17 indicators more than 50% away from meeting their targets. A three-fold increase in annual funding will allow the sector to meet, or come within 5% of meeting, more than half of the targets (12 out of 21).

The Sector Investment Model (SIM), developed and used to estimate the future investment and funding needs, is designed to work in two modes to accomplish its two main objectives. The first is the funding requirements mode which uses information on indicator costs and the gap between baseline and target levels to estimate the total

funding requirements to meet sector goals. The second is the strategic allocation mode. In this mode, distribution of funding is based on both the cost of improvement in each indicator and a prioritisation algorithm. The SIM priorities are defined according to several factors including current budget allocation, the gap between indicator baseline levels and targets, and the sector's preferences, as reported during the stakeholder engagement process. Both these modes rely on the same databases of information that characterise the status, costs, investment preferences, and targets of the sector indicators. SIM outputs are thus either a budget requirement, or an investment mix and subsequent indicator achievement trajectory.

The SSIP and SIM were developed to translate the sector's goals and targets, NDP and SDGs into a funding requirement. The SIM operates on three levels. First, a model based on the present level of funding; second, a medium level of funding; and third, a high level of funding aiming at reaching the SDGs in 2030 for the 24 targets used by the sector and including the WSS and ENR sub-sectors.

5.2 SCAP 100

The SCAP 100 (Service Coverage Acceleration Program) project, co-funded by the GOU and NWSC, strives to ensure universal and equitable access to safe water under the NWSC jurisdiction by the year 2020. This is in line with NWSC's 2016-2021 strategic direction of water for all, starting with all villages in all 174 towns by 2020. Currently, NWSC coverage stands at 77%. The funds needed to achieve the 2020 goal is estimated at UGX 213.4 billion, or an average of UGX 71 billion per annum. GOU will finance 42%, amounting to about UGX 90 billion over a period of three years (2017-2020). The remaining 58% (UGX 123 billion) will be funded by NWSC from internally generated resources generated by the payment of tariffs by NWSC customers. During the FY 2017/18, the GOU released UGX 22.5 billion of its UGX 30 billion commitment and NWSC allocated UGX 43.9 billion against a target of UGX 41 billion.

The overall programme scope is:

- The construction of safe water supply schemes targeting 12,000 villages which currently do not have a reliable water supply and ensuring 100% system functionality;
- The installation of 140,000 new water connections and 20,000 public standposts (PSPs) by 2020. Two PSPs will be installed in every village guaranteeing one PSP for every 200 people;
- Water service expansion through the installation of 8,000 km of mains extension and intensification over three years.

For the FY 2017/18, NWSC set out to extend 2,500 km of water mains, install 16,200 PSPs, connect 55,370 new consumers and reach out to 3,032 villages by June 2018.

6 FINANCIAL RESOURCES (SUPPLY)

6.1 CURRENT FLOW OF RESOURCES

The total financial resources allocated to the WSS sector plus ENR was approximately UGX 1,770.53 billion. Of this, UGX 1,669.14 billion was on-budget having been appropriated by Parliament for the MWE and all the agencies – NEMA, NFA, UNMA and NWSC – and UGX 101.39 billion was off-budget. The donor on-budget allocation within this total allocation amounted to UGX 320.135 billion, representing 18.5% of the total funding envelope. The off-budget financing was provided by NGOs and CSOs in both the water and environment sub-sectors.

The internally generated funds approved by Parliament as Appropriation in Aid (AIA) was UGX 889.8 billion, representing 52% of the sector budget. In terms of releases, UGX 1,725.82 billion was released to the Sector, representing 97.5% of the allocation. The Government treasury released UGX 423.52 billion representing 92% of GOU budget, donors UGX 320.14 billion (100%) and off-budget UGX 101.9 billion (100%).

AIA continues to take the biggest share of the sector's budget source of funding, accounting for 51% of the total sector budget share, followed by GOU contribution at 24%, external funding at 19% (grants and loans) and off-budget funding at 6%.

The total sector operational budget was UGX 1,770.53 billion in the FY 2017/18. Of these, conditional grants totalled up to UGX billion 58.73 (3.3%) and NWSC budget received UGX 858.97 billion (48.5%) representing the major beneficiary of public finance.

According to the 2018 JSR, the sector funding as a share of the national budget again decreased by one percentage point from 2.9% in the FY2016/17 to 2.8% in the FY2017/18. For the other sectors the contributions are the following:

Sector	FY 2017/2018 /UGX)		FY 2018/2019 /UGX)		Variation 2019/2018)
	Total allocation	% of TOTAL	Total allocation	% of TOTAL	
Water & Environment	632.03	2.9%	1265.81	4.9%	200%
Transport	4,587.27	20.8%	4,786.62	18.5%	104%
Agriculture	828.51	3.8%	892.92	3.4%	108%
Health	1,824.08	8.3%	2,308.36	8.9%	127%
Education	2,501.12	11.4%	2,787.57	10.8%	111%
Security	1,472.76	6.7%	2,067.98	8.0%	140%
Energy & Mineral	2,319.8	10.5%	2,438.2	9.4%	105%
Justice	1,119.66		1,296.12	5.0%	116%
TOTAL	22,002.62		25,903.23		118%

Despite the low percentage of total allocation, the water and environment sector will be the main beneficiary of the increases planned for the FY 2018/19 which will double the amount to be allocated. Apart from security and health, other sectors will have marginal increases.

In terms of external finance, the annual budget allocation in the two financial years is given in the table. It shows a significant increase to the W&E Sector. However, it should be noted that the substantial increase in the total allocation planned for the FY 2018/19 is expected to come from external finance, that is, from donor support.

Sector	FY 2017/2018 /UGX)		FY 2018/2019 /UGX)		Variation (2019/2018)
	External finance	% of TOTAL	External finance	% of TOTAL	
Water & Environment	233.61	3.3%	825.64	10.7%	353%
Transport	2,239.9	31.7%	1,995.03	25.8%	89%
Agriculture	203.98	2.9%	211.18	2.7%	104%
Health	912.66	12.9%	1,069.96	13.8%	117%
Education	388.96	5.5%	336.89	4.4%	87%
Security	353.55	5.0%	359.23	4.6%	102%
Energy & Mineral	1,928.18	27.3%	1,873.78	24.2%	97%
TOTAL	7,075.40		7,734.54		109%

6.2 MANAGEMENT OF THE RESOURCES

6.2.1 The Joint Partnership Fund (JPF)

The JPF, a pooled fund managed by MWE, provides harmonised sector funding for the majority of JWESSP components. JPF operations are aligned to government procedures in terms of financial management, auditing, reporting and procurement, but funds are kept separate from Government treasury funds. The support to be channelled through the JPF includes both non-earmarked and earmarked funding. Non-earmarked JPF funding is the MWE's preferred modality to ensure harmonisation of procedures and flexibility for adjustments by using joint decision-making mechanisms, and to minimise transaction costs.

The JPF will also be used as a harmonised modality for channelling earmarked funding based on the different bilateral agreements between the GOU and sector DPs for the different projects. This modality is, in particular, used for Sector Programme Support (SPS) component activities and urban water supply and sanitation (UWSS) investments. In part, the Joint Partnership Fund (JPF) will be spent through the deconcentrated regional structures of the MWE, namely the Water Supply Development Facilities (WSDFs) and the Water Management Zones (WMZs), which have been granted delegated authority for accounting and procurement. Detailed guidelines for JPF operations can be found in a JPF Manual.

The minimum requirement for joint programmes is that, in addition to direct project funding by DPs, some support will also be provided either through the JPF, earmarked or unearmarked according to preference, or by specific direct project funding. These funds will support general programme activities such as the joint review, the annual sector report and capacity development as stipulated in the DP/GOU financial agreements. This support may also be in-kind. This requirement ensures that the sector engages as a whole in a sector-wide approach, plans in a coordinated manner following common principles, mainstreams the environment and climate change, and monitors implementation to reach common goals. Other DPs use this funding modality as a standard.

6.2.2 JWESSP-II

External support to the Joint Water and Environment Sector Support Programme is provided through three main on-budget modalities – (i) sector budget support; (ii) the JPF; and (iii) direct project funding. Off-budget technical assistance is provided in-kind.

Sector funding is categorised as:

- i. On-budget funding consisting of the Government's revenues derived mainly from taxation and budget support funding from DPs and AIA. The latter are usually internally generated funds by parastatals and agencies like NWSC, NEMA, NFA and UNMA that are approved by Parliament for inclusion in the parastatal's or agency's budget;
- ii. Off-budget funding that includes funds to the sector that do not go through the government budget system, but instead are spent by the funding partners and the CSOs themselves.

The mechanisms or concepts defined below underpin the management of the financial resources.

Consolidated Fund: the consolidated fund is the main Treasury account where all Government and external funds are received. Funds are then allocated to the ministries according to approved budgets and to the local governments via fiscal decentralisation mechanisms.

Medium Term Expenditure Framework (MTEF): is a three-year rolling budget framework used to guide public-sector resource allocation, including aid. At the beginning of the budget process, sectors are provided with medium-term resource ceilings, which, in aggregate are consistent with macroeconomic objectives. Sector working groups allocate these ceilings to institutions within the sector over the medium term consistent with the sector policy objectives. These allocations are noted in the Budget Framework Paper (BFP) which represents the Government's medium-term budget strategy. The first year of the MTEF forms the basis of the annual budget allocations, which are voted by Parliament.

On-budget Aid: is aid that is included in the MTEF and presented in the GOU budget estimate books. This includes aid that flows through Government systems (such as general, sector and PAF budget support) and other programme aid and projects that are reported to GOU and that the Ministry of Finance, Planning and Economic Development (MOFPED) considers should be included in the MTEF and the budget presented to Parliament. A second category of on-budget aid includes Technical Assistance (TA) and basket funds that support GOU activities and institutions whose budgets are included in the MTEF and official estimate books. On budget aid falls within the sector ceiling.

Off-budget Aid: is aid that is not included in the MTEF and GOU budget estimates either because it is not reported to GOU or because it is not related to institutions included in the MTEF and GOU official budget estimates. This might include aid to local governments or support to parastatals and NGOs, although many DPs inform MOFPED about this aid. Off-budget funding is thus not included in the JWESSP-II nor within sector ceilings. The amount can be considerable if it includes humanitarian aid. Besides funding for humanitarian aid, there are other funding sources for CSOs/NGOs and multilateral DPs such as UNICEF and UNHCR, as well as bilateral DPs such as the Japan International Cooperation Agency (JICA) and GIZ (German Cooperation). In most cases, funding amounts are not known.

The JWESSP-II five year budget is split into programme components and funding modalities and over the period 2018-2023 amount to UGX 5,776 billion. The GOU's main emphasis is on funding urban water supply.

Compared to the previous programme, the funding modalities in JWESSP-II have changed. This is due to the fact that fewer DPs provide their support through JPF or they only provide part of their support through this modality. Sector budget support, which was an important part of the previous JWESSP, will no longer receive funding from the DPs as they support the new JWESSP-II through direct project funding.

6.2.3 Revolving Financing Facility

After several years of small scale piloting by the Umbrellas, the MWE developed the concept of a Revolving Financing Facility (RF). This is a revolving fund for investments in existing piped water schemes during the FY 2016/17. An operations manual has been developed for the RF. The main purpose of the RF is to provide a source of funding for investments in major repairs, replacement of equipment, network extensions and new connections, water source protection and water metering. Currently, there is no source of funding for these types of investments, apart from the Conditional Grants which are insufficient to meet demand. The RF was established to replace the traditional cycle of deterioration and rehabilitation of the physical assets with a continuous flow of moderate capital maintenance investments, in order to maintain service quality throughout the lifetime of the infrastructure. The MWE will continue the rehabilitation or major expansion that are financed through other channels, for instance by the Water and Sanitation Development Facilities (WSDFs).

The RF approach is building on the successful piloting at a small scale by the six regional Umbrella Organisations/ Water Authorities which demonstrated a demand for this type of funding, thus justifying its scale up.

The basic concept of the RF is to provide immediate support by financing repairs or extensions. The back payments from locally collected funds (user fees) can then be used to support other schemes. Instead of accumulating funds in an investment account – an approach that largely failed in the past – the beneficiary schemes get the necessary equipment or financial support first and then use part of their users' tariff revenue generation to pay back the loan. Partial grant support can be provided in certain cases, such as urgent investments that cannot be fully covered by local revenue without making user tariffs unaffordable.

The RF will be managed in trust by the regional UWAs, but will be available to all schemes that are not managed by NWSC. RF funds will be ring-fenced and cannot be mixed with other operational funds. Funding decisions will be made, based on agreed funding criteria, by the Umbrellas' regional Executive Committees. The UWAs will appraise and monitor individual projects under the supervision of MWE and a Fund Accountant at national level.

6.3 MAIN SOURCES OF FINANCE

6.3.1 The 3Ts

The analysis and identification of ways to mobilise and attract additional financial resources to the sector requires assessing the sources that are usually available and those that are used in the country. The first action to be taken is to look at the concept of the 3Ts and clarify both the three main sources and the funding mobilised for capital expenditure (CapEx) and operational expenditure (OpEx). Capital maintenance expenditure (CapManEx) is often considered as part of CapEx.

The definition of each of the 3Ts is as follows.

Taxes are financial resources originating from domestic taxes – national, regional and local that are channelled and allocated to the sector via transfers from all levels of government budgets. These resources are usually provided as subsidies for CapEx but can cover OpEx if the third T, tariffs, that are paid by the users of the WASH services are too low to fully cover the OpEx.

Transfers are financial resources provided by external sources such as international donors; philanthropic resources from charitable foundations such as NGOs; decentralised cooperation and local civil society organisations; and remittances such as those from the diaspora. These external sources are grants used mostly to subsidise the CapEx, namely for infrastructure serving the lower-income or unserved population but could also cover OpEx as referred above. Concessionary loans (loans that include a grant element in the form of a subsidised interest rate or a grace period) and guarantees provided mainly by development banks are also considered external resources. However, these loans constitute repayable finance, implying a debt service by the other sources. These sources could be taxes if the loan is undertaken by the government (sovereign) and/or tariffs if the government

on-lends the loan to third parties such as service utilities who may also borrow directly from the financial market (sub-sovereign). Loans or repayable finance often create confusion and double counting if summed up with the other sources – taxes and tariffs used to service the debt.

Tariffs are financial resources coming from users of WASH services who generally pay the utilities. The cashflow generated by the payment of the tariffs is used to cover the OpEx and the debt service of loans/repayable finance as mentioned above. It could also be used to create the self-financing capacity of the utilities, thus reducing their leverage ratio and debt level. In developing countries, direct household contributions to CapEx could also be relevant if the utilities are unable to provide the service such as when households are located far from the existing network or on-site sanitation facilities. Households often use microfinance for this purpose. If the service is self-supplied – when the household builds and operates a private well and latrine or contributes to a community WASH facility, for example – the equity invested by the household in the form of cash, materials, or time would fall under the category of tariffs.

One of the most important aspects in analysing the availability of financial resources to the sector is the cost recovery and related tariff policy in the country. It is important to ensure that the OpEx is fully covered by the source Tariff for several reasons:

- i) ensure financial autonomy of the utility's annual budget to operate the system;
- ii) create incentives for demand/production/consumption management by the utilities and the customers; and,
- iii) give the population the option to contribute to the sector through paying for their consumption. This allows them to manage and claim good service instead of paying taxes that are not directly related to the quality of the service and capacity to manage the household expenses.

Universal access to adequate services is only limited by consumers' affordability. In terms of the affordability constraint, there is also a trend to cross-subsidise tariffs at regional level to ensure cost recovery and reduce the wide range of unit service costs in urban areas that vary widely according to population density or availability of water resources (abundant or scarce).

6.3.2 The use of the 3Ts in the Uganda water sector

The financial resources used in Uganda and discussed in chapter 8.1.

- Appropriation in Aid (AIA) contributed by NWSC = UGX 890 billion (52%)
- GOU budget = UGX 423.5 billion (24%)
- Donors (loans and grants) = UGX 320 billion (19%)
- Off-budget (NGOs, CSOs) = UGX 102 billion (6%)

Looking at these statistics, the following conclusions can be drawn. First, as mentioned above, there are some doubts about the AIA and related source. According to the description of AIA, the major contributor is referred contributions from revenues from several public entities including NWSC (see chapter 6.2.2). However, NWSC's annual turnover, which is mainly from tariffs, is about one third of the AIA amount mentioned above. Moreover, most of NWSC's revenues are used to cover OpEx and only UGX 90 billion is profit before depreciation. The other NWSC budget line used to fund its infrastructure is provided by GOU budget transfers which are already included above.

The GOU budget is sourced by taxes and transfers as well as the off-budget contributions. The consultant's mission confirmed that NWSC is not serving any Government debt from international loans which are on-granted to NWSC. The Government is thus using taxes to pay the loans – the repayable finance. In conclusion, all financial resources are sourced from taxes and transfers with the exception of the SCAP 100 programme and amount to an average UGX 71 billion per annum. This is only 4% of the total amount allocated to the sector (see chapter 5.2 for details).

The tables in chapter 6.1 with the figures about budget allocation by sector confirm that competition among several

sectors for national budget resources is a limiting factor for the mobilisation of more taxes. Some sectors such as health and education which don't have significant cashflow contributions from users' tariffs as the WASH sector does, will attract more support in the future. Other sectors with a higher national budget contribution such as transport and security have the same constraint, and will thus continue to compete with the WASH sector.

It should also be noted that the environment sub-sector does not generate significant revenues and thus require more taxes than the water sector. Moreover, the substantial increase of the allocation to both sectors planned for FY 2018/19 is sourced from external financing, that is, donors. Therefore, the water sector may not count on a significant increase of the source taxes despite the strong political commitment of the GOU to support the sector and achieve the related SDGs.

In terms of transfers, one limiting factor is the competition with other sectors in the foreign countries who add the foreign taxpayers' contributions to their national budget for international aid. Foreign governments' priorities for international aid (ODA) are also changing with a recent move from water to food security, immigration and climate change action. Furthermore, once Uganda becomes a middle-income country, the ODA is likely to drop.

In view of the above, the only source that is not limited by fiscal constraints and competition with other public sectors are the tariffs. However, tariffs are limited by household and non-resident users' affordability of the water and sanitation prices. While the capacity to mobilise more financial resources through taxes and transfers can be predicted to some extent, the same cannot be said of tariffs.

Tariffs require complex, systematic, accurate and updated affordability analyses and reliable statistics of household income. Most of the countries, including Uganda where no studies were mentioned or found during the mission, do not have data and/or affordability analyses. This could also be the result of tariffs not being seen or perceived as a major contributor to the mobilisation of additional resources.

In Uganda, a tariff policy was defined about a decade ago (see chapter 6.3.3 for details) but no update or conclusions of recent debates on the subject were found, not even in the last JSR in September 2018. There is a satisfactory process to annually adjust NWSC's tariffs in line with the inflation rate (see chapter 6.3.4). Indexation is effective on 1 July every year and covers price inflation, exchange rate, foreign prices and electricity charges. However, as explained in the previous paragraph, NWSC's tariffs fully cover its OpEx and renewal of assets, but, with the exception of the SCAP, marginally cover its CapEx on new infrastructure. Regarding UWAs' tariffs, there is a marginal but positive trend towards cost recovery of the OpEx and a net surplus to feed the RF (see chapters 4.5 and 6.3.6).

Each local service may wish to incorporate cost recovery in its tariff setting so that it can recover the O&M costs, but none have yet successfully done so. Most of the tariffs seem to be well within the affordability level for much of the population, and there are social tariffs dedicated to lower income groups (see also chapter 6.3.5). However, without a proper affordability analysis based on reliable household income data, it is not possible to confirm this assumption.

Another important factor in maximising financial resources from tariffs is cross-subsidisation between users with different income levels.

There seems to be limited understanding in the Uganda water sector of the major role that tariffs can play in: i) attracting more financial resources to fund CapEx such as through loans from the international and national banking sector, bonds and equity; and ii) targeting/prioritising the national government budget so that taxes and transfers are used to improve the enabling environment and provide guarantees aiming at lowering the sector's financial risk by mobilising more and cheaper funds, increasing creditworthiness and improving the efficiency of service providers.

The SCAP 100, co-funded by the NWSC, seems to be the only example of tariffs being used to mobilise financial resources to cover CapEx for investment in new infrastructure and renewable or rehabilitation of existing facilities.

Another merit of SCAP 100 is its ability to foster solidarity within the sector by using users' tariffs to provide facilities to the unserved and lower-income population.

6.3.3 Tariff policy in Uganda

Among the National Water Policy's objectives is the promotion of financial viability and the sustainability of water supply systems. Section 5.4.2 of the Policy provides for the O&M costs of rural (includes rural growth centres and gravity flow schemes) and small towns to be fully covered by the consumers, unless unavoidable circumstances or unreasonably high costs of supplies and chemicals in certain cases necessitate an external subsidy to ensure the proper running of the schemes. In September 2009, a tariff policy was established for small towns, rural growth centres and large gravity flow schemes.

The strategic objectives of the policy are to:

- i. ensure the financial sustainability of services, that is, the revenues generated from water sales are sufficient to meet the O&M costs of the services;
- ii. promote equity in service provision and fair treatment of consumers;
- iii. ensure that service delivery is efficient through provision of market signals that accurately reflect the cost of supply to achieve efficient production and allocation of resources; and
- iv. reduce the economic and financial burden of subsidies on Government.

These objectives are sound and a good basis for a satisfactory tariff policy. However, no information was found or collected to confirm if the policy is applied thoroughly. Moreover, as mentioned earlier in this chapter, the sector seems unaware of the importance of a sound tariff policy in supporting the mobilisation of additional financial resources for the sector. For example, the reduction of Government subsidies for O&M costs of existing schemes will free resources for new capital investment programmes which in turn will help move Uganda towards attaining the SDG targets for access to safe and adequate water supply.

According to the tariff policy, each service area should set its own tariff according to its own individual water infrastructure and that infrastructure's associated O&M costs. The policy gives space to regional cross-subsidisation and mobilising more revenues from tariffs without exceeding affordability limits.

The policy states that tariffs should only be subsidised under exceptional circumstances. Access to services should be subsidised as a means of achieving a critical mass of connections in all the areas. The Government has subsidised mains extensions since 2009 and will continue to do so through conditional grants and materials/equipment supply procured centrally to benefit from economies of scale and quality control.

Other policy objectives include the following.

- v. In exceptional cases of operational hardship, particularly for schemes in poor working condition and with high operating costs due to the nature of the water abstraction and treatment, subsidies will be provided towards operational costs.
- vi. The basis of the tariff should be the historical cost of operation/production coupled with possible planned measures (by the Private Operator and Water Authority) for improving efficiency and keeping costs low.
- vii. The poor currently pay more per unit volume of water because of the lack of easy access and charges levied by middlemen (kiosk/yard tap owners and vendors). Service for the poor will therefore be critically addressed through a combination of the following initiatives: location of service points within the community; use of pre-paid meters; national procurement of common inputs to support pro-poor initiatives; improved mechanism for accountability on services; and, the control of price at yard taps or stand posts. The use of yard taps will be encouraged.
- viii. The fixed service fee which effectively increases the water bill for the average consumer by 30% is resented by the consumers. Thus the service fee should either be eliminated or reduced significantly because of the low per capita consumption in small towns.

Sanitation is relegated to a lesser position partly due to the multiplicity of centres of responsibility (Ministry of Water and Environment, Health, Local Government and Education and Sports) for its management. The policy also refers to the following.

- There is a need for serious consideration on the mode of delivery of and the responsibility for sanitation services in order to maximise the positive impact of services, especially in view of providing more and more potable water. Efforts shall be made towards establishing a sanitation levy in the large towns, while working in the context of the Memorandum of Understanding between this Ministry, that of Health and that of Education and Sports. Such an approach is to be arrived at on the basis of consultation and concurrence with other Government agencies and stakeholders. It shall similarly be adopted in the other urban areas where it is found to be applicable and suitable for implementation.
- Each town will develop a rolling three year business plan that will show the proposed tariff for each of the three years. At the end of each year, as part of the planning process, the plan for the following year will be reviewed and the tariff fixed accordingly. The derived tariffs will then be discussed with stakeholders to ensure consistency with the overall sector strategic objectives before being submitted to the Minister responsible for the water sector for final approval. This will mostly apply to the small towns.

For the rural growth centres and large gravity flow schemes that are too small to use the model, a sensitisation and consultative process will be undertaken annually, to enable stakeholders to appreciate the intricacies of tariff setting.

6.3.4 NWSC tariffs

The NWSC Act section 5(b) mandates the Corporation to set tariffs and charges as well as levy rates. In addition, the Water Act section 94(4) cap (a) stipulates that a Water Authority may, with the approval of the Minister, establish charges to be paid per unit of quantity for water supplied by metered or computed quantity.

NWSC implements a uniform tariff structure across all its towns to ensure equity in pricing. The tariff structure comprises four categories with variable rates in the FY 2016/17 from UGX 2,716 for domestic use to UGX 3,304 per m³ for governmental premises and UGX 4,102 per m³ for large commercial customers. Public Stand Posts (PSP) are charged the lowest tariff of UGX 32 per 20 litre jerrycan (VAT inclusive) aimed at ensuring basic supply to the poor.

The average water tariff increased from UGX 2,668 to UGX 2,855 per m³, the equivalent of about € 0.76 per m³, an increase of 7%. The sewerage tariff is 75% of the water tariff for the domestic category, and 100% of the water tariff for other categories of customers based on the volume of water consumed. In the FY 2016/17 the unit cost of production decreased by 8% from UGX 2,271 per m³ in June 2016 to UGX 2,083 per m³ in June 2017.

The uniform tariff structure applied by NWSC will make cross-subsidisation in its service area possible – a positive tariff practice that enables users living in smaller urban areas served by systems with high service unit costs pay affordable tariffs subsidised by users living in more densely populated areas with lower unit cost systems.

6.3.5 Pro-poor tariffs

One of the undertakings set to assess the annual performance in 2017 was Undertaking No.7 'Review the water tariff regime to strengthen pro-poor provision with respect to public institutions, rural areas and water vending by end of FY 2016/17.

Following the recommendation by the 2016 JSR, the MWE reviewed the different water tariff regimes to strengthen pro-poor provisions with respect to public institutions, rural areas and water vending. The key outcome of the undertaking was a recommendation to review the tariff policy and pro-poor strategy to clearly specify the tariff regime and determine its enforcement for the benefit of the poor.

It was also established that conventional Public Stand Post (PSP) models, except for those with pre-paid meters, will not be able to charge less or the same as household tariffs, since the income from water sales of the PSP operator/

vendor is not sufficient to motivate them to run the PSP. In a bid to address this constraint, the sector developed a new Sector Performance Indicator 4: ‘% of pro-poor facilities that provide water at a price less than or equal to the household tariff of the service area’, which was reported to start in FY 2017-18.

In addition, an increasing block tariff (with the first block of 1 m³ (‘lifeline’) charged at UGX 25 per jerrycan, equivalent of UGX 1,250 per m³) was proposed to address pro-poor concerns. This was to be piloted in the regional Umbrella organisation/Water Authority for possible up-scaling.

During FY 2016/17, NWSC proposed a review of its tariff structure focusing on reducing pro-poor charges at PSPs (from UGX 38 to UGX 25 per m³ per 20 litre jerrycan) and an upward adjustment of the domestic tariff to subsidise the poor (from UGX 3,205 to UGX 3,900 per m³ including sales tax). The revenue generated from the tariff rebalancing would enable cross-subsidisation of pro-poor tariffs and investments for the Service Coverage Acceleration Program (SCAP 100) which aims at installing 20,000 PSPs over the next three years.

6.3.6 UWAs tariffs

Initially the UWAs maintained the tariffs that were in place when they started operations. They are typically in the range of UGX 1,500 (gravity flow schemes) to UGX 3,500 (pumping schemes). In line with the current policy, tariffs will be set according to actual O&M costs, with lower rates for gravity flow schemes where there are no pumping costs. Tariffs will have to be reviewed in FY 2018/19 in cooperation with the Water Utility Regulation Department.

The Department indicates that for FY 2017/18 in general, the tariffs seem adequate to ensure the financial sustainability of the new O&M setup. Local cost recovery can be achieved in most towns, with the exception of small schemes using diesel generators which will be replaced by solar systems. Willingness to pay is reasonable in most towns, while revenues are expected to increase by a growing customer base and further reductions of non-revenue water.

This policy could be changed to reduce the high tariffs applied to users served by pumping systems by cross-subsiding with lower gravity flow schemes within the regional area served by each UWA, as applied by NWSC.

In Q4 2017/18, the UWAs’ revenue collections exceeded the direct local operating costs by an average of 50%. However, the usual questions remain about the accuracy of the O&M cost estimate and whether renewal or depreciation of assets are part of the costs.

The surplus, if any, will be used to address the backlog of investments in the gazetted towns, including back payments to the RF and covering the UWAs’ operating costs at the regional level, thus making them independent of donor support. The Department expects that four of the six UWAs could become independent of external subsidies within the first two years of operations, with the exception of the investment subsidies needed to clear the backlog of investments.

In April 2018 the UWAs started to receive seed funding from the RF.

6.3.7 NWSC borrowing capacity

The NWSC currently has about UGX 160 billion of grants and UGX 632 billion of concessional loans provided by the international donors to the GOU with no debt service from the NWSC. This policy absorbs a substantial amount of the on-budget contribution from the GOU to the sector benefitting the population served by NWSC whose tariffs mainly cover the recovery of the O&M costs and no CapEx. However, in its OpEx, NWSC should include the depreciation of the assets handed over by the GOU for service provision, which enables the utility to ensure the cost of the renewal of the existing facilities.

The NWSC could progressively assume the debt service of loans borrowed by the Government and transferred as investments in NWSC systems, either for expansion or rehabilitation. It would imply an increase in the tariffs to accommodate part of the service debt over long periods with the exchange risk borne by the GOU. However, the concessional terms of loans provided by international financing institutions are favourable – grace periods of several

years over the implementation of the infrastructure before revenues start to be generated; long maturities of about 20 years close to the lifetime of the infrastructure; and subsidised interest rates.

In contrast, lower-income populations living in unserved mainly peri-urban areas use microfinance to access similar services. These have very short maturities of six months to two years, no grace periods and commercial interest rates. It seems unfair and unequal as middle and high-income households in larger and middle sized urban areas served by NWSC benefit from more favourable conditions. Furthermore, their tariffs do not cover the CapEx of new NWSC infrastructure as these are funded by GOU grants borrowed from international donors.

The World Bank/ Global Water Security & Sanitation Partnership (GWSP)/PPIAF supported a pre-feasibility study on the potential for NWSC to access market finance study (not available) and organised a consultation workshop to present the findings in August 2018. The options for NWSC mentioned in the presentation were:

- i) more government support;
- ii) more donor support;
- iii) self-financing – pay as you go; and/or
- iv) market finance – banks and capital markets.

The focus was on the last option and it was estimated that NWSC would be able to borrow up to UGX 328 billion over 10 years, which is slightly below the annual turnover of UGX 390 billion. The initial borrowing could be UGX 100 billion. The preference would be a corporate bond over a bank loan.

The main conclusion was that the market finance could expand the NWSC capital programme without adversely affecting its financial strength with supplementing donor and government support. The presentation covers many of the topics to be addressed when moving to private finance such as bonds, namely the creditworthiness of the borrower defined as ‘the ability and willingness to repay and honour financial obligations fully and timeously’, and ways to improve collaterals and guarantees.

The study proposes blended finance (see definition in the next paragraph) for NWSC investment needs. However, the consultant of this report has a different opinion. He believes that going directly to the market will be more expensive given the sub-sovereign risk associated with lending directly to NWSC. Borrowing from the Government with a sovereign risk would be a better option as the Government on-lends at similar concessional conditions from International Finance Institutions and takes on potential exchange rate risks between UGX variation and hard currency to protect NWSC. This would be a more progressive approach with the NWSC debt service growing according to the affordability limits of its users. In the short term, borrowing under commercial terms from the national banking sector would also be more expensive than international lending as long as, in the latter case, the Government totally or partially bears the exchange risk.

6.3.8 Repayable finance, funding mechanisms

Repayable finance, contrary to grants, requires an annual debt service over the maturity period once the grace period is finished. Cashflow generated annually by the payment of utility tariffs is usually the best source, and if affordability limits do not allow full cost recovery, taxes can partially subsidise the debt service.

Blended finance

Blended finance consists of the use of public taxes, development grants and concessional loans to mobilise private capital flows to emerging markets. It offers the opportunity to increase the role of commercial financing for the WASH sector. Blended finance come in many forms, but it always includes grants, concessional loans, and credit enhancements such as guarantees to help ‘crowd in’ private investment. For example, grants can cover technical assistance or capacity building activities. Concessional loans can be combined with commercial finance to soften lending agreements and to provide liquidity to lenders. Public finance can also be used to provide partial guarantees to commercial lenders.

Commercial financing may also be an alternative financing source. However, it has thus far played a limited role in the WASH sector. There are several reasons for this. First, water service providers must be considered creditworthy to access commercial funds. Inefficiencies such as low cost-recovery often prevent utilities from having the financial surplus required to cover repayments. Gaps in capacity means that some utilities are unable to provide the audited financial statements that lenders require. Second, investment returns in the water sector are relatively low, but in developed countries, they are often reliable and low-risk, making them attractive to long-term investors. However, in developing countries, the risks are higher, reducing their appeal to commercial lenders. Private finance for small utilities or rural communities can be hampered by their relatively small size. Finally, the water sector typically requires long-term investments that can be at odds with the short to medium term nature of commercial bank lending.

Several forms of repayable finance can be used in the blend with public financial sources, including commercial bank loans, bonds, equity, and microfinance. Commercial bank loans are funds offered for capital investments by banks with a repayment schedule with interest. Bonds are a mechanism whereby capital funds can be raised from a lender who is promised full repayment with periodic interest payments. Bonds can be sold at any time, giving rise to a bond market. Equity is the raising of financing in a private company by issuing shares, which can be sold on a stock market, and where the holder expects to receive a share of the profits. Microfinance is the offering of relatively small loans for shorter periods to communities and households.

Revolving Fund

Revolving funds (RF) is a financial instrument that has been applied with success in several regions and countries including Europe, USA, the Philippines, India, Ethiopia and Kenya. It allows the pooling of public finance as grants and concessional finance from IFIs, and could attract private finance at cheaper conditions. The funds are borrowed by utilities with a partial subsidised CapEx and are returned to the RF in the form of debt service by the utilities from their cashflow generated by tariff revenues.

Each UWA in Uganda has a ring-fenced account for a Revolving Fund. Loans from the RF can only be used for the specified purpose and have to be paid back from the collected revenue. This allows upfront investments to be made and the increased revenue (resulting from the investment) to be used for back payments. The RF can thus be considered as the UWAs' 'credit card' for minor investments. Complete overhauls or rehabilitations of old schemes will still need to be financed from other sources. However, the expected increase in tariffs up to affordability limits and future concessional loans provided by IFIs directly to the RFs with sovereign guarantee could help raise the amounts available in the RFs and progressively fund new infrastructure. The initial allocation to the UWAs' RF was fully spent at the time of the consultant's mission to Uganda. Back payments are expected to begin in October 2018.

Microfinance

The water sector in Uganda is already benefitting from microfinance from the local banking sector. An example seen during the mission is the Finance Trust Bank (FTB) that entered into a partnership with Water.Org in September 2016 with the aim of increasing access to safe water and proper sanitation and hygiene to communities through access to WASH loans. The credit product is designed to enable communities to install WASH equipment and services such as water tanks, water purifiers, boreholes, rain water harvesting gutters, toilets, and bath shelters. The WASH loan targets both domestic and commercial customers.

As at July 2018, FTB had provided funding support to over 628 clients (loans). The loan portfolio is currently at UGX 2 billion, with 336 of the client loans taken for sanitation improvements and 292 loans for water. Other microfinance providers including Post Bank Uganda, Opportunity Bank and HOFOKAM currently operate in the country.

6.4 FINANCIAL REQUIREMENTS. FUNDING GAP

Based on the SSIP's sector investment model, the current level of funding at an assumed moderate annual growth rate of 3%, will not be sufficient for the sector to meet its targets. SSIP has assessed and accounted for external trends such as population growth, and estimates that the water and environment sector will need an average annual budget of almost UGX 7 trillion over the next 12 years up to 2030 (i.e. about nine times the present funding level). If the WASH sector alone is considered, the funding gap would be about five times.

For the purpose of analysing the funding gap, the comparison was based on the same funding level as in the SSIP/SIM report, which is the total on-budget funding as allocated by MOFPED. It should also be noted that 70% of the WSS and ENR sector funding (exclusive external agencies) is DP project funding earmarked for specific activities which are part of bilateral agreements with the GOU. As such, DP funding is not flexible and cannot be used to fund areas where needs are identified by the SSIP. As the SSIP funding needs are planned according to indicators, it can be concluded that some indicators require substantial funding such as safely managed drinking water which requires investing in expensive piped water supply.

For more details, see chapter 5.1.

6.5 JWESSP II. BUDGET ALLOCATIONS PROPOSED IN THE PLAN

The total JWESSP-II five year on-budget funding available is UGX 5,773 billion or an annual average of UGX 1,154 billion. This is approximately 45% higher than the 2017/18 budget and places the funding level somewhere between the BAU and Moderate scenario.

The programmes to which the GOU and DPs have committed, with or without funding, and that are included in the Plan are described below. Some of these are associated with the Action Plan proposed in chapter 9.

Additional seed money for the RF for investments in existing piped water schemes

Tentative funding: UGX 5.75 billion from un-earmarked JPF funds. GOU counterpart funding will be provided through the 'Support to Small Towns Water Supply and Sanitation Project (SSTWSSP)' project in FY2018/19 and through its successor project 'Upgrading and Expansion of Piped Water Supply and Sanitation Systems for Small Towns and Rural Growth Centres' from FY2019/20 onwards.

Implementing entities are the six regional UWAs for repairs and replacement investments to maintain functionality and ensure the sustainability of the systems. Other investments include additional connections, water source protection, rehabilitation of sanitation facilities, water metering and cashless payment systems.

Support to the institutional transformation of the UAs to UWAs

Tentative funding: UGX 14.37 billion from un-earmarked JPF funds, with larger allocations during the first two years of the JWESSP-II (ADA). Counterpart funding will be provided by the GOU through the Urban (O&M) Conditional Grants, with a total allocation of UGX 12.5 billion (UGX 2.5 billion per year) and the UWAs from revenue collections.

Implementing entities: Six UWAs. The programme includes training and coaching of the staff, in particular in the domains of commercial utility management and reduction of non-revenue water. Accounting software needs to be introduced and the existing UPMIS system needs to be developed to support the new utility management tasks, including asset management. Finally, support is needed to meet the start-up costs for schemes that were taken over recently by the UWAs. These are the costs of purchasing a terminal for electronic revenue collection; refurbishing and equipping the water office; and providing a motorcycle for the scheme operators of the larger schemes.

Development of small towns water supply and sanitation infrastructure

Tentative funding: UGX 7.92 billion from un-earmarked JPF funds. GOU counterpart funding of at least 10%.

Implementing entity: WSDF South West. Of the four regional WSDF branches, the WSDF South West is currently not scheduled to receive new DP project funding. A limited amount of un-earmarked funding will be allocated for the development of water and sanitation infrastructure for small towns and RGCs, to preserve the present implementation capacity until new sources of funding become available. In those towns where there is some level of

water infrastructure, migration from rural areas has led to rapid population growth, rendering the existing water and sanitation facilities inadequate to meet current demand.

Support to small towns and successor projects: ‘Upgrading and Expansion of Piped Water Supply and Sanitation Systems for Small Towns and RGC’

Period of implementation: 2018-2023

Development partner: Government of Uganda. *Executing agency:* MWE

Financial tool: GOU Budget

Amount: Total project cost of UGX 10.7 billion. The current level of funding is UGX 2.14 billion (allocation FY2017/18), the equivalent of UGX 10.7 billion over five years. An increase of the funding level is planned. From FY 2019/20, the project will be replaced by larger successor projects, with a requested funding of up to UGX 242 billion (of which UGX 109.4 billion is GOU funding) over a five-year period. However, the actual allocations are likely to be significantly lower and expected DP contributions are yet to be identified.

Water Utilities Regulation (WUR): Strategic towns water supply and sanitation project (STWSSP)

Period of implementation: 2018 – 2023. *Executing agency:* Ministry of Water and Environment

Development partner: African Development Bank UGX 3.18 billion and GOU contribution of UGX 3.12 billion.

As part of the institutional strengthening of the WURD, the support will primarily be used to: effectively regulate urban water supply services; develop a framework for the future regulation of urban and rural sanitation and water for production; and develop a communication framework (strategy and platform).

WUR: TA support to water utilities and Regulation

Period of implementation: 2019 – 2025

Development partner: World Bank. *Executing agency:* Ministry of Water and Environment

Amount: Total project cost of USD 2.11 million or UGX 7.98 billion of which the GOU contributes UGX 1.54 billion

This project will mainly support the development of a regulatory framework and the effective regulation of the sector.

GOU contribution to strengthening the WUR Project

Period of implementation: 2019 – 2023

Development partner: GOU. *Executing agency:* Ministry of Water and Environment

Amount: Total project cost of UGX 20.16 billion. Proposal not yet submitted to the MoFPED.

The project will focus on the deconcentrated Regional Regulation Units. It will ensure: a strong regulatory presence in the different regions; capacity building for the water utility companies and water authorities; and a strengthened regulatory system for improved and credible water and sanitation services regulation. It includes staff salaries, operational costs, and utility retooling.

Expected outcomes: 1. a strengthened regulatory system for improved and credible water and sanitation services regulation; 2. capacity building for the Water Utility companies and Water Authorities; 3. improved Water Utility monitoring; and 4. development of internal capacity through retooling to regulate Water Utility Operators.

Supporting the regulation of NWSC

It is expected that the DPs that support NWSC would be interested in supporting the GOU to carry out annual external independent performance reviews. It is proposed that initial funding should be provided to prepare the framework for external independent regulation (see below). An external consultant can be procured to carry out an independent annual technical and management audit of NWSC for a period of three years. This will coincide with Performance Contract 6. The process could be divided into two parts: first, the preparation of ToRs for the performance monitoring and evaluation for NWSC; and second, implementation of the performance monitoring and evaluation of NWSC.

7 MAIN SECTOR BOTTLENECKS AND FINANCE RELATED CONSTRAINTS

The main challenges to the sector have been described in several reports listed in Appendix 2. Some important challenges are described below. Many are related to financial constraints.

- Insufficient funding levels to reach the sector's targets, including the NDP targets and the SDGs, in a context of fast population growth and low budget allocations. The reason for this continued challenge is population growth and the Government's prioritisation of the energy, transport and production sectors.
- Slow progress on capacity development at local government level. Progress is being jeopardised by the continuous creation of new districts. However, the political decision to increase the number of districts is outside the sector's influence.
- Inadequate recognition of the importance of capacity development as a vehicle for operation and maintenance, as well as for the sustainability of water and environment infrastructure investments as evidenced by the limited resources made available for this purpose.
- In spite of the progress in the reforms, fiduciary risks continue to constrain policy effectiveness particularly in terms of the limited funding capacity in some districts, due in part to the GOU's rapid decentralisation policy. Local governments, in particular new districts, are challenged with increasing staff vacancy rates. While the Ministry of Local Government has stepped up recruitment and capacity building, staff retention is low because once trained, staff tend to move to central government or the private sector.
- In urban areas, there is stagnating coverage because of dropping funding levels for WSDF projects while populations are increasing. Fifty-six urban centres are without piped water supply. At WSDF level, designs for most of them are ready, but without the funding for implementation.
- Sanitation funding levels are too low to implement the faecal sludge management concept at scale.
- Worrying high rates of Non-Revenue Water in Kampala;
- There are insufficient funds in rural areas to substantially increase coverage and supply water stressed areas. Capacity gaps within district local governments are leading to under-utilisation of the District Water and Sanitation Conditional Grants and an insufficient recurrent budget for District Water Grants.
- Lack of effective regulation on the ground.
- In terms of finance, counterpart funding does not meet the financing needs and the traditional sources of funds are insufficient to cover the infrastructure development needs.

Some of the challenges are related to capacity development, coordination among sector entities or high staff turnover, but most concern financial constraints on the supply side, that is, the availability of financial resources, rather than the demand side – the capacity to use and absorb the available resources. However, if the constraint on the supply side is removed, the demand side becomes the main constraint, namely the creditworthiness of the utilities, the provision of good services in an efficient manner and the capacity to implement and operate the infrastructure.

8 CONCLUSIONS AND WAY FORWARD

8.1 RECOMMENDATIONS FROM THE SECTOR REVIEW REPORTS

The findings of the TrackFin Initiative informed the recommendations made in the 2018 JSR to address the finance constraints. The recommendations were made with the view of tripling the funding by 2020 and are outlined below.

- **Allocation of budget resources to the sector:** WASH is a key priority sector given its critical linkages to other sectors like agriculture, energy and industry, and its provision of social services such as health and education. The current prioritisation of energy and transport as the main infrastructure sectors should be reconsidered to include water.
- **Prioritising budget allocation to low-income populations and its contribution to SDG6:** Budget allocations should prioritise low income households in rural and urban areas so as to meet the current needs of human and economic development as well as attain the SDGs.
- **Innovative financing:** There is a need for innovative ways of financing investments by type of services with priority given to options with the greatest potential to meet the challenges of growing demands and rising costs of delivery. Examples are leveraging private commercial finance such as sovereign bonds, and bank credit where recovery through tariffs is possible.
- **Improved coordination:** Better coordination among stakeholders is needed to avoid the funding of individual elements of the entire WASH chain. Good coordination, especially around O&M, is needed for the continued functionality of water points.

In the light of the comments and suggestions made in chapters 6.1 and 6.3 about the flow and main sources (3Ts) of financial resources, these recommendations imply the following:

- Increase the allocation of taxes to the water & environment sector. This might be difficult to achieve despite the value of water and the environment.
- Use the subsidies sourced by taxes and transfers as grants to the unserved and low-income population. This is commendable but would need the tariff contribution to be increased to replace the subsidies currently used for investment in infrastructure.
- Innovative financing like private commercial finance such as bonds and bank credit will also require an increase in the tariffs to service the debt created by the private finance.
- Improved coordination per se does not increase the supply of financial resources but does increase its release and use by removing bottlenecks.

In conclusion, without creating the conditions to mobilise more financial resources from tariffs, most of the recommendations are not feasible.

8.2 CONCLUSIONS OF THE UGANDA FINANCE ASSESSMENT

The conclusions drawn in chapter 8.1 and the analysis presented in chapter 6.3 about the 3Ts and the current situation in Uganda has shown the strong limitations on taxes and transfers in increasing the financial resources to the WASH sector. The remaining option is to use the third T, tariffs, to attract more resources and combine it with the leveraging role of the two other Ts.

The taxes and transfers in the form of grants could be used to target several important and well-known objectives. These could include:

- i) reducing the sector and finance risk – de-risking the sector to attract more and cheaper funding given the cost is proportional to the risk;
- ii) strengthening the enabling environment by continuing to provide capacity building where necessary and credit conditions to increase the efficiency and creditworthiness of utilities who do not have access to credit;
- iii) prioritise investment of infrastructure for the unserved and lower income population;
- iv) launch new financial instruments or strengthen existing mechanisms such as the RF to support investments to be undertaken by the regional UWAs; and,
- v) enhance investment programmes by co-funding budget resources sustained by taxes and transfers with revenues generated by users' tariffs such as the SCAP 100.

The major limiting factor of tariffs is affordability/Capacity to pay (Ctp). Therefore, efforts made to estimate affordability limits should be supported or proposed, as should tariff and cost recovery policies that minimise tariffs. Tariffs could be kept low through regional cross-subsidisation within the service area of each regional UWA. In this context, the strengthening of regulatory functions is important.

Another important recommendation is to support the UWAs to expand services in smaller urban and rural areas in line with attaining SDG6. In view of the poor service quality of local entities and private operators, enabling the regional UWAs to do this has the merit of merging/clustering the implementation and operations at a wider scale. This in turn creates the conditions for achieving good performance in service provision. It will also create the conditions to promote more sustainable and efficient use of the private sector in the O&M of the systems with well-regulated affordable prices accepted by the users.

Another important goal is the balance of gazetted schemes between NWSC and UWAs to ensure the resilience of the sector service provision. It is important to give the UWAs the opportunity to manage schemes serving populations with the level of income and affordability that would enable them to generate tariffs revenues that exceed the OpEx to feed their RFs. Furthermore, a substantial increase of small urban areas served by systems with higher unit costs under the responsibility of NWSC could impact NWSC's financial performance negatively.

8.3 CONSIDERATIONS FOR A STRATEGY MOVING FORWARD

It is recommended to include the following considerations when defining an Action Plan to move forward:

- 1) Assume that the amount of funds available to implement the Action Plan is limited.
- 2) Concentrate the scope of the Action Plan on soft measures. Minimise or avoid including hard components such as water supply and/or sanitation infrastructure and equipment.
- 3) Concentrate on high 'value for money', that is with a high value added/cost ratio.
- 4) Aim at short term results – quick wins.
- 5) Make sure that the Plan has a high leverage ratio, thus avoiding dilution into other on-going programmes.
- 6) Retain leadership in the hands of the owner of the Action Plan.
- 7) Ensure complementarity and cooperation with other on-going programmes in the sector, thus benefitting from financial support to these programmes and optimising/minimising the cost of the Action Plan.
- 8) Include capacity building using a 'learning-by-doing' approach. Ensure capacity building has a strong focus on the transfer of know-how to ensure the long-term sustainability of the know-how within the entity that benefits from the capacity building. Incentivise corporate capacity building over individual training.
- 9) Mitigate the lack of solidarity in the sector in view of its strong social purpose.
- 10) Remove the constraints on additional finance and when finance is released, diversify it to the unserved and/or low revenue/poor population and incorporate gender equality in the financing.

Last but not least, the ultimate goal of the strategy is to create conditions in which the Action Plan can play a demonstration role and experiences and lessons learned during implementation are replicated; and scaling up the Action Plan and increase the smooth flow of financial resources.

The considerations made previously to explain the strategy and how to apply it are presented below. The strategy goals could be achieved by combining complementary actions as follows:

Limited amount of funds available: include soft components, short-term results, quick wins, complementarity with other on-going programmes, high value for money in the scope

Scope of an Action Plan

The first phase of an Action Plan would consist of a more detailed analysis or study (first phase) of short duration which would give continuity to this assessment and provide the details, contents and cost estimate for the activities to be implemented over the years, depending on the expected output and availability of funds. This proposal gives enough flexibility to design the Plan according to the available funds.

Soft components as well as quick wins will limit the duration and cost of the Plan and maximise its value added and outcome.

High leverage ratio, little dilution, leadership in the hands of the owner of the Plan

Management

If the available funds are allocated to on-going programmes, the Plan may be diluted within the on-going programme with no capacity or leverage for quick wins or attaining its other goals. However, it would negate the need for a management entity, thereby reducing administrative costs.

Focus on the unserved and/or the low-revenue/poor population and contribute to more gender equality, create conditions for replication and scaling up

Beneficiaries

The Plan should aim at achieving SDG6 in the country but will not be able reach a significant number of people with limited funds unless anchored in a process favouring replication and scaling up. Choosing the sub-sector could be difficult. Should the choice be: i) water supply or sanitation – the latter has lower coverage rates but the former has a higher priority for the population; or ii) urban or rural – the majority of the population and the poorer live in rural areas but population growth is concentrated in urban areas and water services in these areas are served by network systems. In conclusion, the best approach is the selection of an area served by a utility that has capacity and competence in both urban and rural zones, and that aims at universal equal services. The regional UWAs are a good example of the proper mix.

Capacity building mainly using a 'learning-by-doing approach' with a strong focus on the transfer of know-how that will ensure the long-term sustainability of that know-how within the entity, privilege corporate capacity building over individual training

The option of a utility with capacity and skilled staff that is obliged to expand its service to smaller urban areas and surrounding villages/rural areas will create the conditions for capacity building through learning-by-doing. It will retain the transferred know-how among the utility staff in the long term, which also implies measures to reduce high mobility/turnover.

8.4 PROPOSED ACTION PLAN

Given the recommendations made in chapter 8.2, and taking the strategy inputs defined in the previous chapter as well as the programmes defined in the JWESSP-II (see chapter 6.5) into consideration, it is proposed that the following activities be undertaken to reach the Action Plan's objectives:

- Raise awareness of and the attention paid to: the role of the 3Ts in mobilising additional financial resources; the fiscal constraints imposed on the capacity to increase government contributions through taxes and transfers; and, the need to assess the potential of the T-tariffs. To do these, an affordability analysis could be undertaken into the most appropriate tariff structure using cross-subsidisation namely at regional level within the service areas of each of the UWAs.
- Enhance the capacity of the existing RFs to attract additional funds for investments in new infrastructure for unserved and lower income populations, and for the rehabilitation of existing piped water schemes in poor condition.
- Support the capacity building of the UWAs, including in its regulatory role of private operators.

Actions that could be taken to attain the Action Plan's objectives.

A. Identify and choose the area for a demonstration effect

One main recommendation is to support a regional UWA that has reached a level of maturity –capacity, performance and experience in outsourcing operations to private operators – and is in charge of schemes with as yet unserved populations. This requires the expansion of the systems or the systems in need of rehabilitation, and renewal of assets.

Other factors that could be considered in choosing the area could be: i) on-going support to the local authorities/utilities/communities by NGOs; ii) some experience and presence of local banks providing microfinance; iii) private operators with the capacity and past experience in the region that is willing to enter into Public private partnerships (PPPs) with the UWAs.

The choice should be undertaken in close dialogue with the MWE and other stakeholders.

B. Mobilisation of additional financial resources

B.1: Promote/support or undertake studies of the affordability of/Ctp/Wtp tariffs and cost recovery in the service area of the UWAs selected under Action A.

Collect information, propose and/or undertake:

- A study to assess the affordability and Wtp of the population living in the UWA service area, including the assessment of the effect of cross-subsidisation within the served area;
- A study based on the results of the affordability analysis to adjust the tariffs of the selected UWA so that a tariff structure with cross-subsidisation within the served area can be proposed that would also raise the cost recovery ratio. Include the investment cost of the expansion of the services and the renewal of the assets.

B.2: Strengthening the creditworthiness of the selected UWAs and increasing the funding capacity through the RF:

- Undertake an analysis of the ways to strengthen the creditworthiness of the UWA to attract more funding to the RF, e.g. transfers from concessional loans provided by the donors supporting the sector - multilateral and bilateral financing agencies, borrowed by the GOU and on-granted to the UWAs. Include in the analysis: i) the ways to lower the risk of RF by providing guarantees; ii) attract loans from the local banking sector under a lower risk context; iii) the amount/level of paying back and feed the RF from the users' revenues as a result of a higher cost recovery resulting from the Action B.1.
- Analyse jointly with the WURD the criteria applied for gazetted schemes allocated to UWA aiming at ensuring its financial sustainability jointly with the need to expand services and improve it up to safely managed facilities to contribute to the SDG 6.

C. Strengthen the implementation, operational and regulatory capacity of the UWA

- Identify and support/undertake the capacity building needs of the UWA in complementarity with the JWESSP-II programmes 'Support to the institutional transformation of the UAs to UWAs' and/or 'GOU contribution to strengthening the WUR Project'.
- Support or undertake any on-going activities and/or new requirements/documents such as ToRs, procurement, manuals, sharing of tariff revenues between UWA (conceding entity) and private operator (concessionaire) for the promotion of PPPs aiming at the outsourcing of O&M by the UWA to a private operator.
- Establish regulatory functions at regional level and develop the capacity of the UWA to regulate private operators and support: i) the UWRD in the economic regulation of tariffs and cost recovery in the served area; ii) the competent authority in the monitoring and regulation of the drinking water quality in the region served by the UWA.

The Action Plan will be undertaken on the ground in a specific area and will have short term results. However, it will create the conditions for replication to other areas and scaling up at country level. It is also expected to contribute to a national dialogue with other stakeholders about the role of the tariffs and cost recovery in attracting and mobilising more financial resources to the WASH sector. It could also contribute to a dialogue with the GOU about the role of the UWAs and the need to strengthen support to the UWAs and include their financial sustainability in the criteria for the allocation/gazetting of new local schemes to the UWAs.

APPENDICES

APPENDIX 1: ENTITIES AND REPRESENTATIVES CONSULTED

Name	Organisation
Cate Nimanya	Water for People
Ivan Biiza	MWE
Appolo Mbowa	Stanlib Bank Business Development Manager
Johnson Rukara	Opportunity Bank, Projects Supervisor
Peter Paul Mabola	Finance Trust Bank, Credit Supervisor – WASH Project
Godfrey Katongole	NWSC, Corporate Strategy and Investment Financing Dept, Head
Moses Ssonko	MoFPED, Senior Economist
Jean-Philippe Garçon	AFD, Programme Officer
Juliet Abaliwano Onyango	AFD, Programme Officer
Helmut Jung	MWE, WSDF, Technical Advisor, Urban Water
Sonja Hofbauer	MWE, Senior Sector Advisor
Reinold Seidelmann	MWE, O&M Advisor, Urban Water
Fred Othieno	KFW, Project Coordinator Water, Sanitation & Refugees

Contact by conference call or email

Name	Organisation
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Clarissa Mulders	ADA, DP Liaison Adviser
Christian Rieck	GIZ
Joyce Magala	ADA

APPENDIX 2: LIST OF DOCUMENTS SUPPORTING THE ASSESSMENT

1. JSR 18-20 September 2018
 - a. Terms of Reference for the 10th GOU/Development Partners JSR
 - b. Sector Planning, Finance, M&E and Capacity Development, P.E-Collins Amanyanya
 - c. Performance highlights 2017/18 - Urban Water and Sewerage Department, Rural Water and Sanitation Department, Water for Production Department, and Water Utility Regulation Department, Eng. Aaron Kabirizi, Director DWD
 - d. DP Response to the Sector Performance Report 2018, Joyce Magala, Austria Development Agency
 - e. NWSC Performance Overview, Eng. Johnson Amayo, DMD -Technical Services, NWSC
 - f. Findings of the TrackFin Initiative in Uganda, MWE
 - g. Piped Water for All. "How do we achieve it", Joel Mukanga, Whave Solutions
 - h. Promising Start of the Umbrella Authorities Model: Taking Stock after the First Year of Operations, Eng. Herbert Nuwamanya, Support to Utility Management Division, UWSSD/DWD
 - i. UWASNET Presentation, Yunia Yiga Musaaazi, Executive Director
 - j. ENR Development Partner Comments on WES SPR 2018, Onesimus Muhwezi, Team Leader, Environment and Climate Resilience, UNDP, Uganda Country Office
2. Water and Environment Sector Development Programme, 2015/2016-2019/2020, MWE
3. Water and Environment Sector Performance Report 2017, MWE
4. Water and Environment Sector Performance Report 2018, MWE
5. Second National Development Plan 2015/16 – 2019/20 (NDPII), June 2015
6. Joint Water and Environment Sector Support Programme Phase II. JWESSP-II, 2018-2023, August 2018, MWE
7. JWESSP, 2013 – 2018, Inception Report (November 2011), Final Concept Paper (February 2012) and Preparation of the Programme, April 2013, MWE
8. Strategic Investment Plan for the Water and Environment Sector, Uganda (2018-2030), Final Report, IEC March 2018
9. Rural Water and Sanitation Strategy and Investment Plan 2000-2015
10. NWSC Annual Report 2016/17
11. NWSC Five Year Strategic Direction, 2016-2021
12. Review of NWSC Performance Contract V for the period 2015-2017, September 2017, MWE-Water Utility Regulation Department
13. Mobilizing Market Finance – Consultation Workshop. World Bank/GWSP/PPIAF, August 2018
14. Technical Support to Six (6) Regional Umbrellas of Water and Sanitation for Transition into Water Utility Management, Final Report Including the Performance Management Framework and the Roadmap for the transition, May 2018, Winifred Nabakiibi Kitonsa, Maureen Abakundaine Mugisha
15. Uganda Budget, FY 2017/18 and FY 2018/19, Annex 4 MTEF
16. National Budget Framework Paper FY 2018/19 – FY 2022/23 MoFPED, December 2017
17. Tariff Policy for small Towns, Rural Growth Centres and Large Gravity flow Schemes, MWE, September 2009
18. NGO Performance Report FY 2017/2018, UWASNET
19. UWASNET Policy Brief on the National Budget Framework Paper for FY 2016/ 2017. Policy Briefing Paper No. 003 – December 2015
20. 2018/2019 Ugandan National Budget Allocation for Water & Environment Sector Increases from 3% to 5%. UWASNET Bulletin, July 4th 2018. Issue 4, Volume 7
21. Uganda Overview: Water, Sanitation and Hygiene (WASH), MWE and MoH, 2017
22. Uganda: TrackFin Report: Tracking financing of water, sanitation and hygiene, MWE, August 2018
23. Tracking financing to sanitation, hygiene and drinking-water at the national level, UN-Water TrackFin Initiative, 2017
24. Report UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water, GLAAS 2017
25. IRC Annual Report 2017
26. IRC Watershed programme in Uganda
27. The National Social Security Fund Act. Chapter 222
28. WASH Loan Product, Peter Paul Maloba, Finance Trust Bank

