



STUDY ON WATER TARIFFS AND IMPLICATION ON THE POOR AND UNDERSERVED IN UGANDA



**UGANDA WATER AND SANITATION NGO NETWORK
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LIST OF ACRONYMS

ACRONYMS	FULL EXPANSION
AfDB	African Development Bank
CBMS	Community Based Management System
DWO	District Water Office
FY	Financial year
MWE	Ministry of Water and Environment
NDP	National development plan
NGO	Non- Governmental organization
NWSC	National Water and Sewerage Cooperation
PSP	Public stand pipes
PWPs	Public Water Points
SDGs	Sustainable Development Goals
UBOS	Uganda Bureau of Statistics
UGX	Uganda Shillings
UNCEF	United Nations children's Emergency Fund
UWASNET	Uganda water and Sanitation NGO Network
WASH	Water sanitation and Hygiene
WB	World Bank
WHO	World Health Organization
WSC	Water and Sanitation committees
WSSA	Water supply and sewerage authorities
WURD	Water Utilities and Regulatory Department



EXECUTIVE SUMMARY

This report examines the water tariffs in Uganda and their implication on the poor and underserved. The methodology adopted by the study was largely qualitative augmented with primary data from Key Informant Interviews, Focus Group Discussions, field excursions and literature review. The key findings from the study are as follows:

Context

The appreciation of water tariffs ought to be situated in global, regional and national contexts for safe water access especially in the onset of COVID 19. Globally, the SDG agenda particularly Goal 6 *aims at ensuring availability and sustainable management of water and sanitation for all* while the Africa water vision 2025 under the auspices of the African Development Bank targets reducing Proportion of people without access by 95%. At the national level, Uganda's water supply and sanitation sector aim is to increase access to water supply and sanitation services from 65% and 70% respectively in 2010 to 100% by 2035.

This context is also characterized by a lack of harmonized definition of the poor with different agencies and entities having varied perspectives of who the poor really are. As a result, despite policy makers and donors often having general discussions about "the poor;" the identification of any specific group of poor people is often a challenge hence the difficult on which water tariff to charge, how to charge and how to enforce for increased access to the poor people.

Legal Framework

The legal framework for the tariff system is guided by the Ugandan Constitution (1995), The Water Act, Cap 152 (1997), The National Water Policy (1999), The water tariff policy for small towns, rural growth centers and large gravity flow schemes (2009), The NWSC Act, Cap 317 (1995), The Statutory Instruments (Regulations) of 2002, 2004 and 2006. The key issues with the legal framework in relation to the poor's access to water are noted herein below:

- Although the legal framework is well elaborate and extensive in the determination of the water tariffs, the powers to determine the tariffs is vested in the operators with approval from the responsible ministry. The cardinal aim of the utilities is to ensure financial sustainability of the water supply systems while meeting the operation and maintenance (O & M) costs. Even where subsidizes are provided by the legal framework it is intended for extension of water nearer to the poor not consumption. Hence the poor are still denied access due to cost (tariff) rather than any other access barrier.
- The legal frameworks clearly spell out the key stakeholders in water tariff determination which include, the water utilities who make proposals using the statutory instruments to the responsible minister for approval. The poor people are neither mentioned nor represented in the tariff setting process but only receive the tariff and in most cases charged more than the stipulated rate by the middle men (kiosk operators/ water user committees and water source care takers) at the access points.



Regulatory framework for Water tariffs

The regulatory framework is characterized by the Pro-poor strategy for water and sanitation sector (2006), the National performance monitoring frame work, and performance contracts with water authorities. The key issues associated with the regulatory framework in relation to the water tariffs and poor's access to safe water are herein below summarized:

- Contradicting action points in relation to the poor people's water tariffs and access to water in the Pro-poor strategy. For example, Action point number 15 stated that that *"Phase out use of grants for operation and maintenance; Conditional grants are being provided through the rural water sub sector to local governments to meet the O&M requirements of the existing communal water facilities these will be phased out so that the limited funds can be directed at providing facilities to those not yet served"*. Phasing out these conditional grants would lead to an increase in water tariffs as extreme costs of O&M would be included in the water tariff calculation.
- The action point also assumes uniform operational costs, water technology and customer base for the water supply schemes across the country yet they differ from region to region.
- In addition, many water supply schemes in the rural areas have a limited customer base with low water consumption as there are alternative water sources for alternative water uses.
- Although the pro-poor strategy clearly provided for review every after two years to take into considerations of the changing dynamics of the poor people, the strategy has missed over five reviews which have since made many of the action points either outdated, impractical or irrelevant to increase access to the poor and pro-poor tariff structure across the country.
- The tariff regulation authorities are too wide and too thin to effectively monitor and apprehend point of sale operators from over charging the poor from the stipulated and agreed water tariff.

Water tariff policy and implications for the poor

- The policy proposes that "fixed service fee which effectively increases the water bill for an average consumer by 30% is resented by the consumers. Thus the service fee should accordingly be eliminated or reduced significantly because of the low per capita consumption in the small towns". However all water utilities with exception of CBMS still charge this fees despite the recommendation of the policy.
- Similarly, although the policy recommends a case by case basis tariff structure for the different towns and rural growth centers and towns, water utilities have continued to charge uniform tariff across the towns and in total disregard of the socioeconomic characteristics of the local population under the guise of cross subsidizes.
- The policy also points to targeted subsidizes in relation to O&M and technology but this is practically not implemented as towns unable to meet their operational expenditures are subsidized by charging more to those that are self-sustaining towns.
- Participation is one of the key policy elements where all stakeholders need to be consulted in the process of policy determination (policy element number 1), however in



most cases the consumers most especially the poor are not represented and consulted. Perception surveys only focus on consumers' willingness to pay but not ability to pay for the consumers especially the poor across the locations.

- Like all other policy documents in relation to water tariffs in the sector that provide for periodical review to keep pace of the changing circumstances, the tariff policy review has not been undertaken for the last 11 years.

Tariff setting/ determination processes with implications for the poor's access to water

The analysis of the Tariff determination processes revealed the following;

- Conflicting tariff policy and guiding principles: The financial and economic principles are contradictory to the equity principle. The delicate balance of being financially sustainable and economically viable often times supersede the equity principle.
- Formulae for determining NWSC water tariff is both restrictive and non- responsive to the poor. This mainly arises from subjecting the tariff to annual indexation based on among other conditions the foreign exchange rate in US\$ and foreign price index.

Community based management system (CBMS) tariff structure

- Across the communities visited for this study, majority (77%) of the WSCs did not have already collected money for O&M function. Those with collected O&M fees had between 10,000 to 50,000UGX kept with the treasurer. Similarly, the study also found the agreed O&M fees across the country ranging between 500-2000 UGX per household per month and those with "bulky water" paying between 2000 to 5000UGX.
- The majority of the WSCs and sources visited did not have fully functional committees, with over 70% having 1 to 2 active members. Most had not held both committee and water user meetings in a long time. Majority don't regularly collect O&M fees and did not have emergency O&M fees collected for repair and maintenance of the water source in case of breakdown.
- The continued charging of a flat rate for all for accessing water has continued to unfairly charge the poor more and end up subsidizing the rich and bulk water users who use more water at the same rate as the poor.

National water and sewerage cooperation (NWSC) water tariff structure

- The NWSC Tariff structure is skewed with the Public Tap (PSP) and domestic customers paying less than the commercial customers. The NWSC has a uniform tariff across all its towns. The tariff therefore has an implicit cross subsidy across towns and within customer categories.
- Although NWSC has instituted a pro-poor tariff policy to serve the poor, the current tariff structure is still hampered by two critical factors including service fee, and VAT which further increases the tariff by about 18% VAT and 2% service fees estimated at 2000 per month per poor people's collection point (pre- paid meters) respectively.
- Although the utility companies and organizations have put some pro-poor strategies, in place to lower the cost of water for the poor at the stand tap. The lower the price the harder for the poor to access the water due to difficulty in currency conversation and application. For example the lowest value of legal tender in Uganda is one shilling/ cent and the highest is 50,000UGX note. However, practically the lowest usable and freely



acceptable legal tender is 100 UGX coin. Selling water at 50 shillings is practically impossible at the stand pipes where the venders can't exchange with the water customers and can't keep a record of those who left a 50/= balance for water.

Umbrella water tariff structure

- The current water tariff for the umbrella authorities doesn't not segregate between water users in terms of level of income and consumption volumes. All water users are charged a flat rate. However there are differences between the rates depending on the technology used to pump water
- The bill allocation of umbrella authorities is inclusive of service fee charge charged at 30% of the energy bill, wages and salaries estimated at 40%, operation and maintenance is estimated at 15% and service fee including administrative costs at 15%.

Recommendations

Recommendations to Government

- Build the capacity (human and financial) of the WURD to enforce and monitor equitable pricing and tariffs for water in the country.
- Decentralize the functions of WURD especially tariff regulation and monitoring of standards to the regional water facility offices to increase presence and monitoring of water standards and tariffs of water utilities
- Scrap VAT and service fee from all water tariffs especially for the poor to encourage increased access through lowered tariffs.
- Include, pro-poor performance indicators for the utility companies at all levels including the utility organization, branch and individual staff contracts with clearly stated key performance indicators (KPIs) towards serving the poor. This will greatly limit selective targeting of the poor and increase equitable access to water for all poor in the country.

Utility companies

- Invest in billing technology where the poor can load credit on their cards using a USSD code as well increase access to the pre-paid cards in the community for the pre- paid meters to make meaning for the poor. The utility companies should also increase coverage for the pre- paid meters in areas where they are short in supply.
- The service fee is collected for purposes of delivering the bills to the public stand pipes and this should be scrapped and investment made in digital billing through a pre- paid meters where there is no bill collection and related processes.
- Connection and service fee if they can't be scrapped for the poor, they should be a) allowed to be paid in installments, b) be converted into water bills as the purpose for the water connection fees is meant for efficiency in water supply.
- Clearly define the poor taking into account all the parameters including social and economic characteristics to effectively target the right population. The current definition leaves out salient issue which limit access to water for the poor at both rural and urban communities.



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- Involve the poor in tariff setting to clearly understand their challenges to accessing water for any effective tariff guideline, collection and payment modalities.
 - Decentralize pro-poor initiatives especially for NWSC to areas outside Kampala and informal settlements to effectively reach the poor. These initiatives can include, decentralizing recruitment of the pro-poor contact person at regional offices, town offices to handle all pro-poor issues. Expansion of pre- paid meters, increase access to pre-paid coins to mention.



1. INTRODUCTION

1.1 Global and local context to safe and drinking water access

Globally three (3) in ten (10) people lack access to safely managed drinking water services and six (6) in ten (10) people lack access to safely managed sanitation facilities (WHO/UNICEF, 2019). The Global access to clean water is the focus of the Sustainable Development Goals (SDGs), particularly Goal 6 (*Ensure availability and sustainable management of water and sanitation for all*) with SDG 6.1 particularly targeting achieve universal and equitable access to safe and affordable drinking water for all by 2030. At the African level, the Africa water vision 2025 under the auspices of the African Development Bank targets reducing Proportion of people without access to safe water by 95% (UNWA, 2003).

Uganda is home to about 46 million people as of 2020¹². Close to a quarter (21.4%) of the country's population live below the poverty line of less than \$1.25 a day with regional variations in poverty levels up to 60.2% in Karamoja region³. Similarly, 30% of the population don't have access to safe drinking water with the rural population disproportionately affected than urban. The sector performance report (2019) estimates that 21% of Uganda urban population don't have access to safe water compared to 30% in the rural areas⁴. A study undertaken by GIZ in Kampala found a substantial number (52%) of people living in life and health threatening homes and neighborhoods, primarily in slums with limited access to safe water and sanitation services⁵.

Ensuring availability and sustainable management of water and sanitation for all by 2030 (SDG#6) is one of the SDGs and the Government of Uganda is committed achieving it. The goal of Uganda's water supply and sanitation sector is to increase access to water supply and sanitation services from 65% and 70% respectively in 2010 to 100% by 2035. The sector has also seen an increase in sector allocation as a share of the national budget from 2.9% (UGX 639bn on budget funding against the National budget of UGX 22,002bn) in the FY 2017/18 to 5.0% (UGX 1,263bn on budget funding in the FY 2018/19 against the National budget of UGX 25,093bn. In addition the sector instituted reforms such as the national pro-poor strategy for water and sanitation (2006) to improve effectiveness of the water and sanitation sector in providing services to the poor through undertaking deliberate strategies to improve access to water and sanitation especially for the poor and underserved⁶.

Despite these efforts to increase access to safe water in the country, many poor people and marginalized groups both in rural and urban areas have limited access. The poor are often underserved, highly charged in terms of cost for water and often times receive substandard services. A study by African Development Bank (A. McIntosh 2003) revealed several reasons why the poor are underserved by utility providers as relating to inability to paying high upfront connection fees to access the water network, location of the poor and lack of documentation required to be served.

¹ Worldometer elaboration of the latest United Nations data (August 2020).

² Statistical abstract (2019), Uganda Bureau of Statistics.

³ Distribution of Poverty in Uganda across regions 2016/17, Uganda Bureau of Statistics.

⁴ Uganda Water and Environment Sector Performance Report (2019).

⁵ GTZ/RUWASS, sanitation market study report for Kampala, 2009

⁶ Ministry of Water, Lands and Environment (MWLE) Directorate of Water Development (DWD): Pro- Poor Strategy for the Water and Sanitation Sector (March 2006).



The study also revealed that the main network provider may choose not to expand the access to low-income communities because doing so is unprofitable, or because the poor have no secure tenure over their land in slums or informal settlements. The network providers equally lack the know-how to serve the poor and if service levels are based on quality standards that the wealthy and middle class require, the employees of the utility companies do not always communicate well with the poor.

In light of these access challenges, Water is both a social and an economic good. The social element requires that all people have access to safe water supply and the economic component calls for efficient and reliable provision of water services to ensure sustainability and economic growth⁷. In the same breadth, water services are monopolistic in nature and it is not possible for an individual to switch from one water service provider to another even when the tariff for water is too high especially for the poor. Because of this, it is critical that consumers are protected through some form of regulation of the water service providers.

The Government under Cabinet Minute 320 (CT 2003) established an Independent Regulatory Entity for the Urban Water and Sanitation Sub-sector under the DWD Director's office known as the Water Utility Regulation Department (WURD) to carry out regulatory functions. The department is charged with regulating water supply and sewerage services for all piped schemes. In addition, the department determines the extent to which other market segments need to be regulated (such as informal service provision that benefits the poor) and coordinates with the regulators of sanitation services (such as town councils) to ensure that the expansion of sewerage and sanitation services is done in a coordinated manner that ensures adequate protection of human health and the environment. The department also performs key economic regulation functions including: licensing/ contracting of water service providers, tariff setting, quality regulation, and competition and consumer protection.

Despite the legal and social sector reforms the poor have continued to be underserved, highly charged in terms of tariffs and price for water and receive poor quality water resulting into limited access to safe drinking water. In the context of the COVID-19 pandemic, having potable water for hygiene and an adequate and safe sanitation system are the basis of prevention (UNESCO, 2020). Indeed, COVID-19 has heightened the urgency for access to safe and clean water all over the world. It is believed that frequent hand washing for at least 20 seconds with clean, safe water and soap is effective in preventing the spread of the COVID-19 virus⁸. However access to this life saving intervention is often inaccessible and unaffordable for both rural and urban poor who are most at risk of infection exacerbated by other health factors including poor housing, limited access to nutritious food and other pre-existing medical conditions.

In Uganda, the households and institutions needs for WASH services has more than doubled and yet the incomes have reduced tremendously limiting access to safe water especially where water is paid for. A study undertaken by UWASNET and Twaweza in 2019 revealed a wider gap between the rich and the poor and disparity between rural and urban areas in terms of access to clean water. The poor people pay more per unit volume of water because of lack of easy access

⁷ Strategy for regulation of water services in Uganda (2018), Ministry of Water and Environment,

⁸ WHO (2020); Coronavirus disease (COVID-19) Weekly Epidemiological Update and Weekly Operational Update



resulting into high charges levied by intermediaries (Winpenny, 2003, p.19). Other studies have adduced that, urban people living in poverty pay as much as 22 percent of their income to access water from water vendors (WaterAid, 2020).

1.2 Objectives of the study:

The overall objectives of the study was to analyze the current water tariffs and its impact on the poor, unserved and the capacity of institutions to deliver on their mandate. Specifically the study set out to:

- i) Review the water regulation strategy and identify key areas that have not been implemented to ensure the water tariffs are pro-poor.
- ii) Assess the process of determining water tariffs by the water utilities and umbrella authorities and ascertain whether it addresses the needs of the poor and unserved
- iii) Review the current water tariffs and analyses whether they are inclusive and will address the critical WASH needs in the context of COVID 19 and ensure no one is left behind
- iv) Recommend both short term and long term water tariff structures that will enable the country to achieve the WASH targets in NDP III, Vision 2040 and Sustainable Development Goals (SDG).

2. METHODS

The study adopted largely qualitative approaches which included an extensive review of key literature from the four (4) water service providers (NWSC, Umbrella authorities, private operators and CBMS for point water sources) responsible for supply, management and operation of water systems in the country. Key documents including reports, journal articles, acts, bills, policies, tariff structures and statutory instruments issues by the policy and legal framework responsible for the water and sanitation sub- sector in the country.

A total of forty five (45) Key Informant Interviews (KIs) were conducted with National Water and Sewerage Cooperation (NWSC), who are responsible for water supply and sewerage services in all major and gazetted towns, the Umbrella Authorities responsible for water supply in rural growth center and small towns which are not under NWSC (these are five in total including Central, Midwestern, South Western, Eastern , Northern and Karamoja Umbrella Authorities), the Ministry of Water and Environment (MWE) , specifically Water Utilities and Regulatory Department (WURD) and two selected district water officers from each region in line with umbrella authorities jurisdictions.

In addition to KIs, Focus Group Discussions (FGDs) were conducted with a total of thirty (30) Water and Sanitation Committee (WSCs) members. Five (5) water points were selected from each umbrella organizations regions to understand water tariff issues related to Community Based Management Systems (CBMS) who are responsible for point water sources such as shallow wells, protected springs and boreholes to mention.

The study also interacted with five (5) water users (125 in total) of the respective water points from each selected water sources across the umbrella regions and 150 water users in Kampala informal settlement with the highest concentration of the poor to understand salient issues related to water tariffs.

In each of the Key informant interviews, reconnaissance visits and literature review, the data collection tools (interview guides) were used to collect and adduce information related to but not limited to review of the existing water tariff regimes, how the costing/ tariff is developed/ arrived at, any considerations for the poor in terms of access, how the existing tariff structure affect access to water for the poor and any recommendations to improve access to water for the poor and underserved populations across the country. List of persons consulted is attached to the report.



Figure 1: One of the PSP managed by the southwestern umbrella in Katooke sub-county -Kyenjojo District.

An attempt was also made to contact legally registered private water operators specifically Kalangala Infrastructure Development Project who is among the only remaining private water operators under contract from MWE and other non-registered private water operators in vain. The study also did not scientifically establish the relationship between water tariff and the amount water used per person per day (Lppd) which could be explored in a separate study across the country.



3. FINDINGS FROM THE STUDY

3.1 Understanding the poor and underserved in relation to water tariffs in Uganda.

The appreciation of water tariffs among the poor calls for an operational definition of the poor. Reformers need to identify who are the poor. In doing so, they need to have a clear definition of “poverty,” which means different things to different individuals and organizations⁹.

World Bank defines Poverty as *the lack or insufficiency of money to meet basic needs, including food, water, clothing and shelter to mention*. Poverty can be measured in monetary terms based on the monthly (or annual) expenditure of a given individual. That expenditure is then compared to a threshold called the poverty line. However, poverty is much more than the mere lack of money. It is also about deprivation in other important areas of wellbeing such as education, health, water, and housing (World Bank, 2016).

The Uganda Bureau of Statistics (UBOS) defines poverty as *“The pronounced deprivation of well-being or welfare. Poverty has many different dimensions, ranging from material well-being (basic needs of life like nutrition, good health, shelter, education, water etc) to lack of human rights, citizenship or social networks.”*¹⁰

However in the water and sanitation sub-sector, the ministry of Environment and Environment (MWE) approaches poverty in Uganda as *being measured in absolute terms by the level of income against the expenditure needed to secure basic food and nonfood items* (Ministry of Water and Environment, 2017). The NWSC has developed its own definition of poverty as a means of appreciating the extent of poverty in its supply areas and to develop concrete plans to provide these households with sustainable services (World Bank, 2018). This definition is based on four parameters:

- i) In Uganda poor households have monthly incomes of less than UGX 80,000 (\$48) in a month, which translates into less than US\$ 1.25 /UGX 5000 per day. This is about one-third of the individual house connection fee (at \$125) and 14 percent of the average cost of connection (\$350).
- ii) The Poor households live in clustered settlements with a high crowding index of up to 14 persons per household (although the average household size is reported by Uganda Bureau of Statistics as six).
- iii) The poor households have very low water consumption of 0–20 liters per capita per day which equates to 3.6 m³/month for a household of six), as they use this water mainly for drinking and cooking.
- iv) The poor households do not have their own house connection and mainly use PWP (including kiosks).

African development bank (AfDB) considers the poor to be those deprived of essential assets and opportunities to which every human is entitled¹¹ including access to basic education,

⁹ Poverty can be viewed in absolute and relative terms and is measured and assessed through a variety of methodologies and instruments. L. Bjornestad. 2009. *Fiscal Decentralization, Fiscal Incentives, and Pro-Poor Outcomes: Evidence from Viet Nam*. ADB Economics Working Paper Series No. 168. Manila: ADB (hereinafter “Bjornestad, 2009”).

¹⁰ Uganda Bureau of Statistics, 2006

¹¹ Poverty Reduction Strategy, 2004. p. 5; and ADB. 2006. *Poverty Handbook Analysis and Process to Support ADB Operations: A Working Document*. Manila. Available: www.adb.org/Documents/Handbooks/Analysis-Processes/appendix01.pdf (hereinafter “Poverty Handbook, 2006”).



healthcare, nutrition, and water and sanitation, as well as income, employment, and wages¹². Poverty is measured in terms of adequate access to these essentials. AfDB views poverty as comprising three broad categories¹³.

- a) *Human poverty: the absence of essential human capabilities such as literacy;*
- b) *Income poverty: insufficient income to meet minimum consumption needs, due to lack of employment or wages;*
- c) *Absolute poverty: the poverty level below a threshold (often described as the “poverty line”) that sets the minimum basic needs for survival¹⁴. These basic needs will include food, water, and shelter; this bare minimum is often described as “less than \$1.25 a day¹⁵.”*

Human poverty is caused by a diverse range of mutually reinforcing factors¹⁶ including geographic location, age, health, living environment, occupation, and membership in vulnerable groups (such as certain castes, ethnic minorities, women, the elderly, orphans, or the disabled).

Poverty may also arise or persist because vested interests or entrenched power structures which seek to maintain the status quo. Poverty may continue, or be worsened, because the poor may not have the knowledge to obtain essential assets or their rightful legal entitlements: they may not have been informed of those rights and/or legal entitlements and they may not have any means of knowing about them. Moreover, Government policies, legal and regulatory frameworks, and programs, may not encourage empowerment of the poor in a way that would allow them to overcome these knowledge gaps.

Key issues in relation to water access and tariffs:

Lack of clear definition of the poor before they are served is the major limiting factor. Policy makers and donors often have general discussions about “the poor;” however, it can be difficult to identify any specific group of poor people. The poor often lack formal addresses or property rights, and there is insufficient data about where they live, how much they earn, what they spend, how they behave, and so on in the end interventions are made which not necessary reach the poor . Hence end up not being served by utility providers.

For example in Kampala under NWSC, a few poor settlement were identified and extended pre-paid water meters as well as setting the pro-poor tariff rate. However the poor continue to access water at very high rates since the final water cost is determined by the pre- paid meter operator. The coins and the cards which were also meant to curb extortion by the pubic kiosk operators in terms of high tariff for water are limited in supply and only centralized at the pro-poor office in Kisenyi which make it very difficult for the poor to access. The pre-paid meters are

¹² *Poverty Reduction Strategy, 2004. p. 5; and Poverty Handbook, 2006.*

¹³ *Poverty Handbook, 2006. Appendix 1, p. 91.*

¹⁴ *Ibid. This definition of absolute poverty is different from that of D. Parker, C. Kirkpatrick, and C. Figueria- Theodorakopoulou, 2008, p. 178, which distinguishes absolute poverty from relative poverty.*

¹⁵ *The term “absolute” poverty is a bit of a misnomer because the poverty line is defined differently by different people, states, and communities. It is often used interchangeably with the term “extreme poverty,” although what counts as extreme poverty will depend on local circumstances and interpretations.*

¹⁶ *Poverty Reduction Strategy, 2004. p. 6.*

also only rolled out in some part of Kampala leaving out many NWSC operated towns with the poor not served all over the country.

Relatedly in the rural country side, the umbrella authorities in their definition, the poor are those who can't afford private connections and hence provided with public standpipes and kiosks which are operated by private individuals who sell water at higher rates than the prescribed.

The definition of the poor by the water utilities based on the average household income, volumes of water consumed is both misleading and terribly wrong. Available literature and field reconnaissance meetings to the different part of Kampala and the countryside, actually show that the poor subsidize the rich and pay double the water costs. Across the NWSC operated areas the price of water ranges from 100 UGX to 300UGX per 20 liter jerrycan and in extreme cases going up to 1000 UGX in situation of limited supply and interruption in water supply connection. The rural areas due to the availability of alternative sources the price for water ranges between 100-200UGX per 20 liter jerrycan across the country. This is more than double the cost of water for the rich with private connection who access water at less than 75 UGX per 20 liter jerrycan irrespective of the water supply technology in the country.

Equally so the low volume of water consumed by the poor is also a function of the water tariff and lack of storage facilities rather than the actual uses of water.



Figure 2: A private – pre-paid meter operator selling water to those without coins at UGX 100 per 20 liter jerrycan in Bwaise II parish, Kampala



3.2 Review of the institutional framework for the management of water in the country in line with water tariff determination and implementation

The Ministry of Water and Environment (MWE) has the responsibility for setting national policies and standards, managing and regulating water resources and determining priorities for water development and management. It also monitors and evaluates sector development programmes to keep track of their performance, efficiency and effectiveness in service delivery. MWE has three directorates: Directorate of Water Resources Management (DWRM), Directorate of Water Development (DWD) and the Directorate of Environmental Affairs (DEA).

The Directorate of Water Development (DWD) is responsible for providing overall technical oversight for the planning, implementation and supervision of the delivery of urban and rural water and sanitation services across the country, including water for production. DWD is responsible for regulation of provision of water supply and sanitation and the provision of capacity development and other support services to Local Governments, Private Operators and other service providers. DWD comprises three Departments; Rural Water Supply and Sanitation; Urban Water Supply and Sanitation and Water for Production.

Provision of water at the local level directly falls under four authorities including:

- i) Local Governments (Districts and Town Councils), which are legally in charge of service delivery under the Decentralization Act (2005); through the district water office implementing a Community Based Management System (CBMS) approach including NGOs and water users.
- ii) De-concentrated support structures related to MWE, are at different stages of institutional establishment, including Technical Support Units (TSUs), Water Supply Development Facilities (WSDFs), Water Management Zones (WMZs), and Umbrella for Water and Sanitation Authorities.
- iii) National Water and Sewerage Corporation (NWSC) for urban water supply and sewerage;
- iv) The private sector (water and sanitation infrastructure operators, contractors, consultants and suppliers of goods) self-supply groups.

However due to challenges of low water supply and sanitation coverage, poor systems management, inefficient operations, low sustainability of facilities and services and generally poor sector governance, Cabinet, under Minute 139 (CT 1997), directed the MWE to undertake reforms in the water sector to ensure that services are provided with increased performance and cost effectiveness and the burden on Government to provide these services gradually decreases while maintaining the Government's commitments to equitable and sustainable water sector services in the Country¹⁷.

Sanitation Sub-sector Reform Strategy 2001 was formulated which among others recommended the separation of implementation and service provision from regulation by establishing an Independent Regulatory Entity to enhance transparency and accountability and

¹⁷ Strategy for regulation of water services in Uganda (2018).



further improve performance in service provision. Hence the creation of the Water Utility Regulation Department (WURD) in 2016.

The department is charged with regulating water supply and sewerage services for all piped schemes. This implies piped schemes in the urban sector, which include water supply and sewerage services provided by NWSC, and rural growth centers that have piped water systems and/or have a population of more than 500 people. In addition, the department is mandated to determine the extent to which other market segments need to be regulated (such as informal service provision that benefits the poor) and coordinating with the regulators of sanitation services (such as town councils) to ensure that the expansion of sewerage and sanitation services is done in a coordinated manner that ensures adequate protection of human health and the environment.

The department is responsible for performing key economic regulation functions including: Licensing/ contracting of water service providers, tariff setting, quality regulation, competition and consumer protection.

- a) *Licensing/Contracting*: Issue performance contracts to water supply and sewerage authorities (WSSAs). Contracts include the terms and conditions that the contractors have to meet to provide water supply and sewerage services, performance targets and incentives or penalties applied to achieving the performance targets.
- b) *Tariffs*: Receive and review tariff proposals from X` and their respective service providers. Approve tariffs, balancing objectives of cost-recovery, efficiency, equity and affordability
- c) *Technical quality regulation*: Collect and review service performances of water and sewerage service providers and benchmark and publish information on the service quality of water and sewerage service providers.
- d) *Competition*: Identify economically viable service areas and recommend variations to these areas on an on-going basis; resolve any dispute between different service providers, including with respect to bulk tariff issues and network access with a view to providing a level playing field for all types of providers
- e) *Customer protection*: Receive and resolve consumer complaints, resolve disputes between consumers and service providers, develop customer management guidelines.
- f) *Other functions include*; development of standards and guidelines to be followed by service providers, such as for estimating tariff adjustments, corporate governance and customer handling, disseminate information to customers regarding tariff increases and other relevant information about water and sewerage services, provide advice to the Ministry of Water and Environment on relevant water supply and sewerage policies and regulations, collaborate with relevant central government agencies and local governments in order to coordinate the regulation of sewerage services with that of broader sanitation services (including emptying of on-site sanitation facilities, faecal sludge transport, management and reuse) and arbitrate on competitive water resource use, especially where the resource is limited or becoming unsustainable.

Key issues to water tariff determination and regulation for poor.

Although the creation of the WURD is a positive step in the right direction, the WURD is new barely less than five years in existence. The department has limited staff currently having not



more than 28 people and all located at the MWE headquarters. This limited presence in all other parts of the country presents a challenge in monitoring water prices and tariffs, receiving and handling consumer complaints especially high price charges by the water utilities which the department is responsible for regulation.

Similarly, as one of the administrative measures to restrain water utilities from not over-charging water users is the revocation and cancellation of the operational licensees and contracts. This administrative instrument puts more emphasis on cost recovery, extension of water and operational efficiency with equity as the least measure. This makes it difficult for the WURD to implement and perform the regulatory function.

3.3 Policy and legal framework for water tariff setting, regulation and implications for the poor.

3.3.1 Introduction

The constitution of the Republic of Uganda, 1995 (as amended) is the supreme law of the land, meaning that all other laws of the land constantly have to measure their legality against it. Article 79 of the Constitution empowers Parliament “to make laws on any matter for the peace, order, development and good governance of Uganda”. The Constitution, therefore, is followed by the different Acts of Parliament published in the national Gazette after the President’s assent. Those related to water include. The Water Act Cap 152, the NWSC Act Cap 150, the Local Government Act Cap 243, and the Public Health Act Cap 281¹⁸. On the other hand regulations are statutory instruments that give a detailed description for key aspects in the law. These are made by the Ministers as Statutory Instruments in respect to the different sectors and as mandated under the respective laws.

3.3.2 Legal Framework

The policy and legal framework for the water tariff regime is anchored on the following laws:

The Ugandan Constitution (1995), Objective XIV (b) defines clean water as a fundamental right while Objective XXI obligates the state to take all practical measures to promote a good water management system at all levels. Sub-section 1 provides, “the state shall promote sustainable development and public awareness of the need to manage land, air, water resources in a balanced and sustainable manner for the present and future generations. Subsection 2 states that, “the utilization of the natural resources of Uganda shall be managed in such a way as to meet the development and environmental needs of present and future generations of Ugandans; and in particular, the states shall take all possible measures to prevent or minimize damage and destruction to land, air and water resources resulting from pollution or other causes.

The Water Act, Cap 152 (1997), Section 94 on ‘Rates, Charges and Fees’ – provides for fixing of tariff rates, charges, or fees with the approval of the Minister or by regulations and by involvement of the stakeholders. The Act also provides for fixing of penalties for failure to pay any amount due to the authority when it falls due.

The National Water Policy (1999) calls for promoting financial viability and sustainability of water supply systems under section 5.4.2. It provides that, for rural (includes rural growth centers and

¹⁸ *Mapping of Water Tariff Issues in Kampala City (2019)*, Jacinta Nekesa Nangabo.



gravity flow schemes) and small towns, the operation and maintenance (O & M) costs should be fully covered by the consumers, unless, due to unavoidable circumstances, unreasonably high costs of supplies and chemicals in certain cases necessitate an outside subsidy to ensure proper running of the schemes. The policy stipulates that full cost coverage of Operation and Maintenance (O&M) by consumers and in addition for large urban schemes coverage of depreciation of technical installations i.e. replacement costs and repayment of construction loans. Cross-subsidies should be promoted, thereby ensuring a basic minimum consumption at reduced rates, and discouraging wastage and excessive consumption. Currently, the Water Policy is under review to make it more applicable in the present times and circumstances.

Tariff policy for small towns, rural growth centers and large gravity flow schemes (2009) under its strategic objectives provides to: a) ensure financial sustainability of services i.e. the revenues generated from water sales are sufficient to meet operation and maintenance costs asset , b) promote equity in service provision and fair treatment of consumers, c) 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 d) reduce the economic and financial burden of subsidies on government.

The NWSC Act, Cap 317 (1995), Section 5, para 2 (b) on Powers of the Corporation 'to set tariffs and charges, make and levy rates and fix terms and conditions for work done or services, goods or information supplied by it'.

The Statutory Instruments (Regulations) of 2002, 2004 and 2006 provides for rates and annual indexation of NWSC tariff. The indexation formula as well as the first water tariff schedules for the different consumer categories (Public Stand Pipes-PSPs, Institutions & Government; Industrial & Commercial, etc.) are provided and approved by the responsible minister. Indexation helps to protect the company's financial equilibrium and maintain real value for the tariff.

Key issues and implications for the poor

Although the legal framework is well elaborate and extensive in the determination of the water tariffs, the powers to determine the tariffs is vested in the operators with approval from the responsible ministry (with all operational and structural limitations discussed before). The cardinal aim of the utilities is to ensure financial sustainability of the water supply systems while meeting the operation and maintenance (O & M) costs. Even where subsidies are provided by the legal framework it is intended for extension of water nearer to the poor not consumption. Hence the poor are still denied access due to cost rather than any other access barrier.

The legal framework clearly spell out the key stakeholders in water tariff determination which include, the water utilities who make proposals using the statutory instruments to the responsible minister for approval. The poor people appear nowhere in the process and often times not represented. They only receive the tariff and in most cases charged more than the stipulated rate by the middle men (kiosk operators/ water user committees and water source care takers) at the access points due to challenges in accessing private connections. The proposed rates despite the poor people's considerations are not applicable in many cases.



3.3.3 Regulatory framework for Water tariffs

A number of regulatory frameworks have been developed by the MWE to regulate water tariffs in respect to the poor and these are summarized into three of the most critical ones including the a) the Pro-poor strategy for water and sanitation sector (2006), the National performance monitoring frame work, and performance contracts with water authorities. Detailed analysis of the three regulatory frameworks are here discussed in details and how they have since improved and in some instances hindered access to water.

In 2006, the MWE in consultation with sector stakeholders developed the National Pro-poor Strategy for Water and Sanitation Sector (2006). The objective of the strategy is to improve effectiveness of the water and sanitation sector in providing services to the poor¹⁹. The strategy emanated from a pro-poor concept note that was produced in 2004 which reviewed the pro-poor performance of the then current policies, strategies and practice.

The strategy is meant to be implemented by MWE, NWSC, NGOs, private sector and development partners and guide planning, development and implementation of services targeting the poor and marginalized groups of people in urban and rural areas¹⁸. The strategy has 36 action points to guide implementation for rural, urban, small towns domestic and water for production for the poor across the country. Two action points (3 and 2) have direct bearing on the water tariff for the rural poor and six of the 11 action points focus on water tariffs for urban including enhancing access by densifying the network and expanding to unserved areas; by establishing Public Water Points (PWP); by continuously updating a pro-poor tariff; by subsidizing yard connections serving as authorized public water points; by providing smart subsidy to O&M; and by continuously monitoring water quality.

The National Performance Monitoring Framework (2016) has one indicator dedicated on pro-poor tariff being “% of piped water users having access to public water points and paying less than or equal to the in-house connection tariff of the service area’ and,

Performance contract with water utilities is the other regulatory framework as established by the WURD of the MWE. One of the key functions of the WURD is to enter into contract with the utility providers to manage water supply on behalf of Government. Contracts are the main regulatory tool to be used by the WURD. The Contract includes the terms and conditions that the water authorities have to meet while providing water supply and sewerage services. These terms include but not limited to:

- i) The service area to be served by the Water Authority
- ii) Description of services to be provided to the population within the service area
- iii) The period of the contract
- iv) Rights and responsibilities of the Water Authority
- v) Performance targets
- vi) Incentives and penalties applied to achieving the performance targets
- vii) Proposed tariff structure, tariff adjustments formula and period
- viii) Business planning and reporting requirements
- ix) Customer management requirements
- x) Dispute resolution mechanisms.

¹⁹ MWE pro-poor strategy for water and sanitation sector (2006).



Once a Performance Contract is granted, the department has the responsibility to monitor the water authority's compliance with the terms and conditions of the contract. In regards to water tariffs, one of the pro-poor performance indicator is on 'pro-poor connection growth. For example for national water this target is set at 980 connections per annum²⁰ translating into about 10% of the pro-poor connections (PC6, 2018-2021).

Key issues for water tariff implementation for the poor:

Contradicting action points in relation to the poor people's water tariffs and access to water. Action point number 15 stated that that *"Phase out use of grants for operation and maintenance; Conditional grants are being provided through the rural water sub sector to local governments to meet the O&M requirements of the existing communal water facilities these will be phased out so that the limited funds can be directed at providing facilities to those not yet served"*. Phasing out these conditional grants would lead to an increase in water tariffs as extreme costs of O&M would be included in the water tariff calculation.

The action point also assumes uniform operational costs, water technology and customer base for the water supply schemes across the country. For example in South Western Uganda and Eastern where majority of the water supply schemes are gravity flow schemes (GFS) have limited operational cost compared to many water points in central and Northern Uganda where majority of the water schemes are pumped up schemes using electricity and diesel generators whose operational costs are higher.

Coupled with the above many water supply schemes in the rural areas have a limited customer base with low water consumption as there are alternative water sources for alternative water uses. Water from the schemes is usually used for drinking and cooking, while other water uses are met from unsafe water points such as water for animals, washing to mention. The limited customer base would require heavy subsidy to meet the routine operation of the water supply system as majority of them operate below capacity. On average the rural water schemes have a customer base of between 200-500 households and a less than 100 institutions compared to major towns under NWSC with over thousands of customers.

The pro-poor strategies also clearly points out that the strategy will be reviewed every after two years to take into considerations of the changing dynamics the poor people. However the strategy has missed over five reviews which have since made many of the action points either outdated, impractical or irrelevant to increase access to the poor and pro-poor tariff structure across the country.

3.4 Review of the water tariff policy and implications for the poor

In 2008, the MWE developed the Water Tariff Policy (2009) for small towns, rural growth centers and large gravity flow schemes to address the inconsistencies in setting tariffs. The vision of the Tariff policy is the attainment of equitable and self-sustaining water service provision in the urban water sub-sector that imposes minimum financial burden on Government²¹.

²⁰ Sixth Performance Contract between GoU and NWSC (July 2018 – June 2021).

²¹ MWE, Tariff policy for small towns, rural growth centres and large gravity flow schemes (2009).



The policy has four key strategic objectives including a) ensuring financial sustainability of services i.e. the revenues generated from water sales are sufficient to meet operation and maintenance costs asset, b) promoting equity in service provision and fair treatment of consumers; c) ensuring 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 d) reducing the economic and financial burden of subsidies on Government.

The policy also provides seven elements which relates to all stakeholder involvement in tariff formulation including: Individual town tariff structure based on uniqueness of the water infrastructure, subsidizes under exceptional circumstances, elimination of 30% service fees and pro-poor tariff structure and access approaches.

Key issues for water tariff implementation for the poor:

The policy proposes that “fixed service fee which effectively increases the water bill for an average consumer by 30%. Thus the service fee should accordingly be eliminated or reduced significantly because of the low per capita consumption in the small towns”. However all water utilities with exception of CBMS still charge this fees despite the recommendation of the policy. For example in tariff calculation of NWSC, a service charge of 1500 UGX is charged to consumers of between 6 CM³ and 45CM³ per month. The poor who access water from public stand pipes are subjected to fee of 2000 UGX per month. National water in addition to the service charge also charges 18% VAT on all water bills which increases the cost for water for the poor people. Umbrella organizations also charge between 10-15% of the unit cost per cubic meter of water as a service charge.

Similarly, although the policy recommends a case by case basis tariff structure for the different towns and rural growth centers and towns, water utilities have continued to charge uniform tariff across the towns and in total disregard of the socioeconomic characteristics of the local population. The policy also points to targeted subsidizes in relation to O&M and technology but this is practically not implemented as towns unable to meet their operational expenditures are subsidized by charging more to those that are self-sustaining towns.

Participation is one of the key policy elements where all stakeholders need to be consulted in the process of policy determination (policy element number 1), however in most cases the consumers most especially the poor are not represented and consulted. Perception surveys only focus on consumers’ willingness to pay but not ability to pay for the consumers especially the poor across the locations.

Like all other policy documents in relation to water tariffs in the sector, provide for periodical review to keep pace of the changing circumstances. Unfortunately, no tariff policy review has been undertaken for the last 11 years since 2009.

3.5 Review of the tariff setting/ determination processes with implications for the poor

A tariff is a set of rules that determine the amount that a consumer should pay for using a certain service²². In water services, the process of determining a water tariffs is governed by

²² Savenije, H., van der Zaag, P. (2002) *Water as an Economic good and Demand Management: Paradigms with Pitfalls*. *Water International*, Vol 2, No 1, pp98-104



economic principles with the intention to conserve water, promote fairness among the consumers and generate enough revenue to sustain the service²³.

There are basically four principles that guide water tariff determination and these include financial, economic, equity and simplicity principles. Financial principles are premised on the fact that the price should generate sufficient revenues to cover O&M, depreciation and yield an acceptable return on assets²⁴. Depreciation covers the capital investment over the useful life of the assets (replacement costs), while return on assets covers interest on debt and a fair rate of return for the equity capital. The financing criterion is therefore equivalent to a near full cost recovery tariff²⁵.

The equity principle is premised on the need to provide all sections of the population with at least the basic supply of water services²⁴. The poor are a key consideration in this respect. Water utilities often achieve the equity principle through differentiated tariffs for the different customers. Economic principle on the other hand follows the cardinal rule that the water tariff should equal the cost of providing an incremental unit i.e., the Long Run Marginal Cost (LRMC). Incremental costs include the costs for required incremental capacity, O&M, and externalities. It is revered that too low a price will promote wastage detrimental to the society and the environment. On the other hand, too high a price would limit consumption and therefore reduce the benefits of optimal consumption, in particular health²⁶.

The simplicity criterion follows the notion that the tariff structure should be understood by consumers so that they can respond to price signals and adjust their consumption accordingly. Complex tariffs with various bands are not easily interpreted by consumers²⁷. A flat tariff across the board for all consumers regardless of their consumption eliminates the complexity of tariff structures and the cross subsidies.

Besides the above-mentioned principles, tariff structures may also be categorized as uniform, progressive and regressive tariffs²⁷. The uniform/flat tariff structure implies that all irrespective of their level of income and social status of the consumers, they all pay the same price for a unit of water. This form of structure is also adopted as a cross subsidy mechanism across customer categories and geographical locations. For example, the NWSC and umbrella authorities have a uniform tariff across all its towns and areas of jurisdiction respectively for particular segments of customers. This therefore implies a cross subsidy element within the tariff structure.

The progressive rate structures are conservationist structures usually applied in areas with scarce water resources. However, this structure has also been adopted by NWSC to address the equity considerations, with the larger and perceived richer users paying more thus subsidizing the consumption of the smaller users like the poor. The regressive structures follow the principle that larger consumers as a unit are easier to administer and should therefore be charged a lower tariff. On the other hand, smaller consumers spread within a geographical horizon have higher unit costs and should therefore pay a higher price.

²³ van der Zaag, P., Savenije, H., (2006), *Water as an Economic Good: The value of Pricing and the failure of markets*"

²⁴ Savenije, H., van der Zaag, P. (2002) *Water as an Economic good and Demand Management: Paradigms with Pitfalls. Water International*, Vol 2, No 1, pp98-104

²⁵ Stephenson D. (1999) *Demand Management Theory*, Water SA Vol 25, No 2, pp115-122

²⁶ PRI (n.d.) *Economic Instruments for Water Demand Management in an integrated water resources management framework*. Policy Research Institute

²⁷ MWE(2006), *review of tariffs for piped water supplies (small towns, rural growth centers and gravity flow schemes*



Setting of water tariffs in Uganda is governed by the Water Act Cap 152 Section 94 and powers conferred upon the Minister by section 107(2) (q) of the Water Act. The process involves the following steps.

- a) The water authorities /utilities prepare a submission to the Minister of Water and Environment indicating and justifying the suggested tariff revisions and structure. The proposals are based on an analysis of the costs of related to the domestic price index, exchange rate, foreign price index, and electricity tariffs for NWSC²⁸. The umbrellas and private operators base their proposals on operational costs, water board or water utility costs, capital expenditure buffer (CAPEX Buffer), tariff subsidy allocation and project annual water sales volumes²¹. Minor O&M and payment of the water source care taker (administration) are the only considerations for tariff consideration for CBMS²⁹. (See respective formula under annex 1).
- b) The Minister evaluates the proposal and amends or approves the proposal for both NWSC and umbrella authorities including private operators.
- c) A Statutory Instrument effecting revision of the tariff structure is then issued.

Unlike the piped water systems (NWSC, umbrella authorities and private operators), CBMS doesn't not need approval from the responsible minister but rather consent of the community and a representative of the District Water Officer during the tariff determination. The tariffs under CBMS vary from one source to the other.

Key issues for water tariff implementation for the poor:

Conflicting tariff policy and guiding principles: As set out the tariff policy and principles for tariff determination, the tariff must be financially viable thereby able to meet all the operational costs and reduce the cost burden on government (financial viability). Without adequate revenue, the utility runs a risk of failing to maintain its infrastructure and to continue its supply of therefore by all means water utilities set water tariffs to meet this principle. Besides the financial principle, the tariff should be economic despite water being a social good and human right. The economic principle relates to regulating water waste and ensure sustainable use of this finite resource, hence a tariff should be high enough to prohibit wasteful use. The equity principle on the other hand contradict these two principles which sometime referred to as cross subsidization among different users. For example, wealthy people or bigger water consumers may be may be charged more than the low income people to enable the poor access water. In reality, the cross subsidization is often sidelined as the utilities encourage the financial and economic principles than serving the poor.

Formulae for determining NWSC water tariff is both restrictive and non- responsive to the poor. The tariff is subject to annual indexation based on among other conditions the foreign exchange rate in US\$ and foreign price index. Although the justification is clear that some of the items used in maintaining the water supply are imported in the country and the medium of exchange for the international trade is the US dollar, this however presents challenges for the poor water users in Uganda where the tariff is charged in Uganda shillings which currency is very fragile

²⁸ Statutory instruments (2017) no. 33. *The water (general rates) regulations, 2017.*

²⁹ *National framework for operation and maintenance of rural water supplies (2004) revised in 2015.*



against the foreign currencies due to inflationary tendencies. NWSC in an attempt to guard the tariff against inflation, the dollar rate is usually set at a higher exchange rate in anticipation of the annual inflationary tendencies which automatically pushes the tariff higher. Fixing the exchange rate also presents challenges where the shilling gains value against the dollar, the foreign exchange gain in the sense of reduced water tariff is not enjoyed by the consumers of the service.

The impact of uniform tariff structure on affordability and accessibility of water for the poor is manifested in restrictive in access to the poor as the tariff assume the some socioeconomic status between the rich and poor. The poor end up paying more for water compared to the rich. This is also true for both water connection fees and recurrent water user fees irrespective of the water supply regime.

3.6 Review of the current water tariffs and implications for the poor.

There are currently three water tariffs in Uganda used for domestic water consumption across the water utilities. These include the NWSC tariff structure, the Umbrella organizations which is also determined in the same manner like the private operators and the CBMS which is used by the point water sources. The first two traffic structures are synonymous with piped water and the third is synonymous with point water sources and payable in most cases as flat rate ranging between 500-2000 UGX per household per month.

3.6.1 Community based management system (CBMS) tariff structure

This tariff system takes into consideration the vulnerable households in the community on recommendation of the water user committee as proposed by the water users where these households are exempted. The exemptions covers households headed by elderly, PWDS and child headed households. Across the communities especially in Western and South Western Uganda and some parts of Central, the study also found a few water and sanitation committees charging slightly a higher rate for “bulky water” to a tune of between 3000-5000 UGX per month especially to people collecting water for mini irrigation, brick laying and water vendors.

The respective water and sanitation committee (WSC) with consent of the water users, appoint a water source caretaker who maintains the water sources, and collects the water user fees sometimes called O&M fees. The fees are usually kept with the treasurer of the water sources committee for purposes of O&M for the water source. Across the communities visited for this study, majority (77%) of the WSCs did not have already collected money for this function. Those with collected O&M fees had between 10,000 to 50,000UGX kept with the treasurer. Similarly, the study also found the agreed O&M fees across the country ranging between 500-2000 UGX per household per month and those with “bulky water” paying between 2000 to 5000UGX.

However majority of the WSCs and sources visited did not have fully functional committees, with over 70% having 1 to 2 active members, most had not held both committee and water user meetings in a long time, don't regularly collect O&M fees and did not have emergency O&M fees collected for repair and maintenance of the water source in case of breakdown.



Figure 3: A photo of a well maintained point water source in Mpigi district (central Uganda).

3.6.2 National water and sewerage cooperation (NWSC) water tariff structure:

The current NWSC tariff structure came into force in April 1994. In setting the Tariffs, the Corporation is guided by the following principles³⁰.

- a) Given that not all the NWSC towns are able to break even, i.e. cover operation and maintenance costs, the Corporation operates a uniform Tariff Structure across all its towns.
- b) Water is essential life (basic right) and hence consideration must be taken to allow subsidization of minimal water needs to poorer customers
- c) Tariffs take into account the customers' ability to pay.
- d) Tariffs are set such that revenues generated cover operation and maintenance costs, replacement of assets, and debt servicing and expansion.
- e) The Corporations responsibility to provide free water for humanitarian purposes to society in exceptional cases e.g. for fire hydrants.

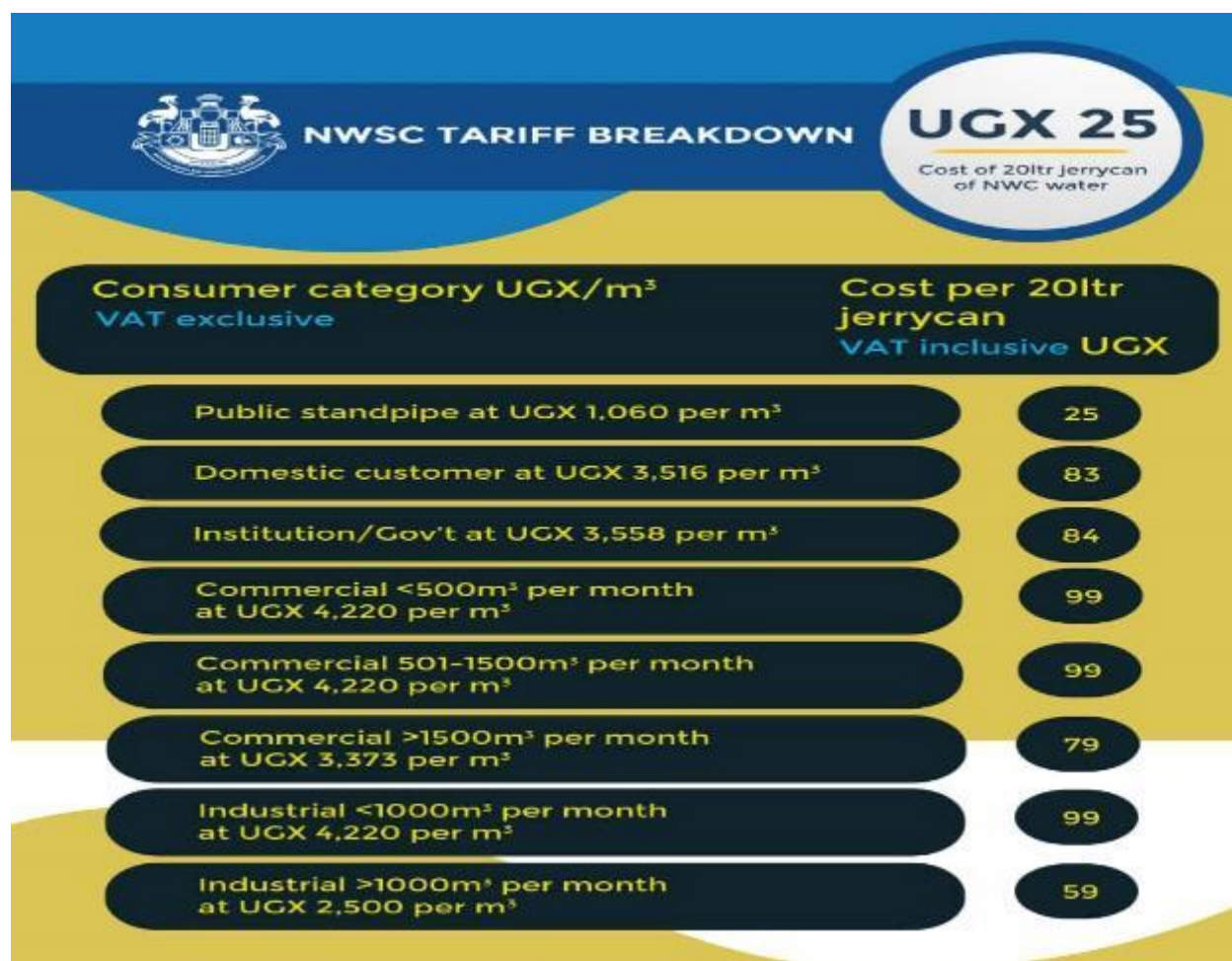
NWSC current tariff has gone through a number of historical event to what it is currently today³⁰.

³⁰ Godfrey Katongole; *Brief Nwsc Tariff and Its Sustainability* (2018).



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- a) From 1994 to 2000, the tariff remained unchanged and was therefore eroded over time by factors such as inflation and depreciation of the shilling against the dollar. In 2000, it was estimated that the tariff value was only 45% of the real value in 1994.
 - b) In 1998, the NWSC management engaged the services of a Consultant to review the tariff structure. The objective of this review was to improve the revenue base of the Corporation by raising the willingness to pay by customers. The study recommended among other things an 18% increase in the tariff if the NWSC was to effectively cover its operational costs. This was not however effected due to the intervention of Parliament. A few recommendations of the study were subsequently adopted in the year 2000 and these included the removal of minimum charges, the reduction of the connection and reconnection fees and the introduction of a service charge.
 - c) In April 2002, Cabinet passed a policy of Indexation to Protect the Tariff from loss of value due to changes in, Domestic inflation, Electricity Tariff (Energy Charges), foreign inflation, Exchange rate. The indexation policy was aimed at enabling the NWSC cover its operational costs, thereby ensuring sustainability of service provision. It should be noted that despite the indexation policy, the NWSC tariff was still not a full cost recovery tariff. This means that it can cover operation, maintenance and depreciation costs, but is not able to cover full financial costs (debt servicing) and return on investments.
 - d) In addition, in 2004 and 2006 respectively, the NWSC introduced a simplified water and sewerage connection policy in which new water and sewerage customers were subsidized within a radius of 50 and 60 meters respectively. This move improved access to the NWSC services and the same time reduced incidences of water leaks and bursts between the customer's meter and the NWSC service point.
 - e) In its quest to further improve accessibility, as well as implement the Presidential directive of ensuring universal access to clean water by All cities, towns, trading centers and villages, the Corporation is implementing a three-year project codename, "Service Coverage Acceleration Project (SCAP100). The project that is funded by NWSC together with GoU aims at Provision of safe water to 100%, targeting at least 12,000 villages. This entails, among other interventions undertaking accelerated installation of Public taps targeting villages/cells under the NWSC jurisdiction (2 public taps per village or a tap per 200 people).
 - f) To improved affordability and willingness to pay, the Corporation undertook a tariff rebalancing. This entailed provision for a pro-poor tariff of Shs 25/= per 20 litre jerrican, with an effective consumer price of Shs 50/= per 20 litre jerrican. The back ground for the pro-poor tariff stemmed from the NWSC's expansion drive that has stretched to semi-urban areas with limited affordability.

The NWSC Tariff structure is skewed with the Public Tap (PSP) and Domestic customers paying less than the commercial customers. The NWSC has a uniform tariff across all its towns. The tariff therefore has an implicit cross subsidy across towns and within customer categories. The sewerage tariff is based on the volume of water consumed, (i.e. 75% for domestic and 100% for commercial)



Source: National Water and Sewerage Corporation website (2020).

3.6.3 Umbrella water tariff structure:

Using the applicable formula (annex 1), the current water tariff for the umbrella authorities doesn't not segregate between water users in terms of level of income and consumption volumes. All water users are charged a flat rate. However there are differences between the rates depending on the technology used to pump water as indicated below.

Table 1: Umbrella organization tariff structure for water

Water pumping technology	Rate per cubic Meter (UGX)	Cost of water per 20 liter jerrycan (UGX)
Gravity flow scheme (GFS)	1985	50
Solar powered schemes	2554	100
Diesel/ Electricity generated schemes	3400	100



3.6.4 Main comparison between NWSC and authorities tariff structures:

Similarities	Differences
<ol style="list-style-type: none"> 1) All charge the service fee for water which increases the water tariff for the poor. 2) All assume similar socioeconomic characteristics of domestic or private connections across the country 3) All are majorly driven by cost recovery than equity principles in determining the final water tariff for the consumers 	<ol style="list-style-type: none"> 1) Authorities' tariff structure is not affected by foreign exchange indexation hence their tariff structures are not affected by foreign exchange gain and inflation tendencies. 2) NWSC structure is uniform irrespective of the water pumping and supply technology unlike the authorities' tariff structure affected by the water pumping technology 3) NWSC tariff structure is differentiated by consumption of water hence restrictive in view of water waste unlike authorities' structure which is flat irrespective of water usage.

Key issues for water tariff implementation for the poor:

Although on some water sources, the WSC have put in place exemptions for the vulnerable especially the elderly, child headed households and windowed/ widower, the tariff structure continue to assume that all water users have the same needs.

The continued charging of a flat rate for all accessing water has continued to unfairly charge the poor more and end up subsidizing the rich and bulk water users who use more water at the same rate as the poor. In South Western Uganda, however NGOs like Water for People have implemented a pilot project of borehole metering where households are charged per use volumes than a flat rate for equity.



Figure 4: Metered hand pump in South western (kamwenge district) Uganda.

Although NWSC has instituted a pro-poor tariff policy to serve the poor, the current tariff structure at both NWSC and umbrella authorities is still hampered by two critical factors including service fee, and VAT which further increases the tariff by about 18% VAT and 2% service fees estimated at 2000 per month per poor people's collection point (pre-paid meters) respectively. For example the bill allocation of umbrella authorities is inclusive of service fee charge of energy bill at 30%, wages and salaries estimated at 40%, operation and maintenance is estimated at 15% and service fee including administrative costs at 15%.

The payment systems for water and currency denomination: Although the utility companies and organizations have put some pro-poor strategies, in place to lower the cost of water for the poor at the stand tap. The lower the price the harder for the poor to access the water due to difficulty in currency conversation and application. For example the lowest value of legal tender in Uganda is one shilling/ cent and the highest is 50,000UGX note. However, practically the lowest usable and freely acceptable legal tender is 100 UGX coin. Selling water at 50 shillings is practically impossible at the stand pipes where the venders can't exchange with the water customers and can't keep a record of those who left a 50/= balance for water. To make matters worse, most of water collection is done by children in some cases bringing water collection containers out the measure of the price for water. Most children carry 10 liter jerrycan yet the water is mostly sold in 20 liter jerrycan.



3.7 Review of pro-poor strategies in line with water tariff determination, implementation and implications for the poor.

Guided by the MWE pro-poor strategy for water and sanitation, water utilities (NWSC and Umbrella authorities) have over the years undertaken strategies to serve the poor with water and sanitation services across the country. Key among these include: a) *An Affordable Connections Policy*, to increase coverage to the poor (in particular, the poor settlements for NWSC) by lowering the cost of the connection fee for any customer (domestic and nondomestic) living within 50 meters of the water mains, b) *A Pro-Poor Tariff Policy*, which shifted the uniform tariff structure for all consumers to a differentiated structure for (i) domestic (ii) non domestic customers, and (iii) public water points (PWPs).

Table 2: Connection fees structure for the different utilities for domestic/ household connections.

Distance from water line to household (meters)	Amount (NWSC) UGX	Amount (Umbrella) UGX
0-25	100,000UGX connection fees for HH connections on ½” pipe Plus the cost of materials.	250,000
25-40		300,000
41-100		400,000
Above 100	Considered as an extension depending on available and potential users in an areas	

This means that there is a specific tariff for each of the NWSC's customer categories across all water supply areas: Industrial and commercial, government and institutional, and domestic. An additional tariff was developed specifically for PWPs and c) *A Pro-Poor Targeting Project*, to subsidize water supply connections (including shared yard taps and prepaid PWPs/ kiosks) in specific poor settlements for example all new connection applicants will not pay new connection fees but will meet the actual costs of new connection materials³¹. The schedule also proposed different rates and connection fees depending on the distance and the size of connection of connection to the households as indicated (table 1).

³¹ *Water (General Rates) Regulations, 2017*



Figure 5: Domestic pre- paid and public prepaid meters being piloted in Central region umbrella organization

In addition, NWSC also established the Pro-Poor Unit/Branch in Mengo Kisenyi and staffed with highly skilled social scientists to promote, plan, and support water supply and sanitation service expansion in poor, unserved settlements of Kampala. The Pro-Poor Unit was set up to respond to challenges and gaps in serving informal settlements despite NWSC's growing global recognition as a well-performing utility.

Key issues for water tariff implementation for the poor:

Although connection fees are exempted for the poor especially in Kampala by NWSC, they still exist in the countryside. This connection fees present a serious hindrance for accessing water especially for the poor in rural growth centers. The cost of a connection for poor in the umbrella operated towns and community where majority access have ownership to their dwellings as this represents over 74 percent of the average monthly income. This therefore is beyond the reach



of many households and end up accessing water from the PSP which charge stillly higher compared to the domestic tariff in place per jerrycan.

Unlike umbrella authorities which have a fixed cost for connections for domestic connections, NWSC don't have a fixed cost. Hence the burden to determine how much the poor will pay is left in the hands of the water technician who may over charge the poor for connections due to limited knowledge on the cost of materials. This is a strong source of under the table payments which the poor customers may not be able to meet.

Although water utilities have put measures to address the challenges of tariff regulation at the access point for example, appointment of agents in the community to sell water coins credit for the pre- paid meters, extension of pre-paid meters in the community, establishment of the pro-poor office to mention. These measures are still hampered by the following factors;

- a) Inaccessibility of the prepaid meters keys, card, tokens and coins: these are controlled by major utility offices where one needs to register and credit to those card can only be accessed either through a central office or a vender. These are in most cases limited in supply even when the poor need them in the community.
- b) Pre-paid meters where they exist the venders still charge highly in absence of the prepaid cards and coins. They charge between 100 and 200/= and in some cases above 300 in cases of scarcity. In situations where the pre- paid cards are accessible the pre-paid meters are seating ducks with no meaning to the poor. For example in Kampala area, the pre-paid meter tokens are only accessible at the pro-poor office in Kisenyi Mengo for the rest of Kampala. This is where the poor can register for the card and pay the initial subscription for the card at 15,000 UGX per card.
- c) Pre-paid meters and coins are also short in coverage, in Kampala out of the required 50,000 meters, less than 3,000 are installed and only in limited place especially the five divisions of Kampala with no coverage at all for Kampala metropolitan areas and NWSC served towns. Currently Kampala area has about 36,000 tokens for the urban poor with over 80% of would be user households not served with the much needed coins.
- d) Low functionality rate and high O&M costs of the pre-paid meters: Information from NWSC shade light to the high O&M cost of pre-paid meters, initial cost of technology and high rate of frequent breakdown. The recent estimates indicate that over 40% of all installed prepaid meters in Kampala are non-functional and O&M spare parts are limited in supply coupled with limited technical knowledge for the technicians to repair those which have broken-down. This has seen many of them non-functional and not serving the purposes which they were intended to do.

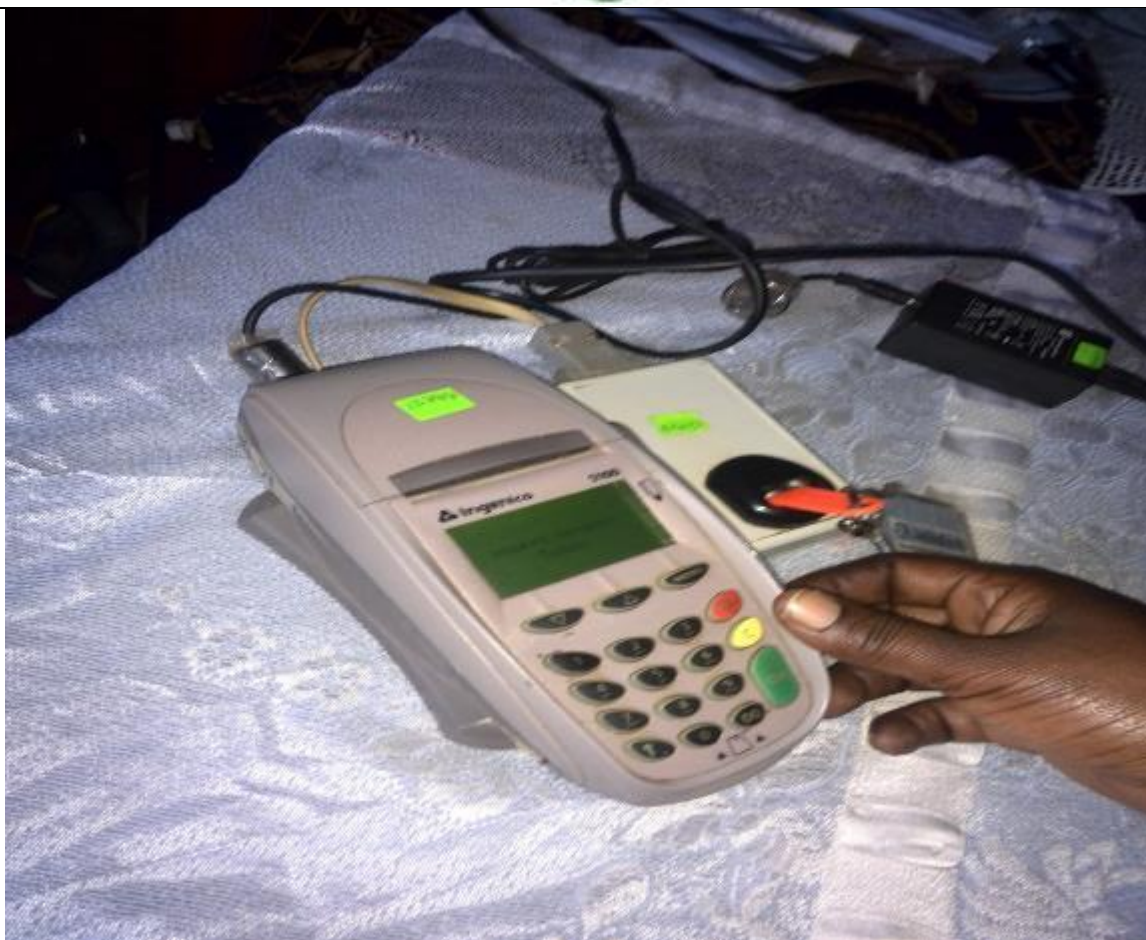


Figure 6: One of the NWSC coin credit vender in Kawempe (only accessible after registration from pro-poor office in mengo Kisenyi).

4.1 Lessons from NWCS and Umbrella authorities handling of COVID-19

The principle of leaving no one behind is a key aspect in the realization of the SDGs. This principle comprises 5 key elements namely; discrimination, geography, socio-economic status, shocks and fragility and governance. In the context of COVID-19 emergency extension of water and sanitation services in public spaces where the risk of transmitting the virus was considered high, the water utilities undertook some of the following measures to increase access to the poor.

The emergency extension of water and sanitation services in public spaces where the risk of transmitting the virus was considered high. On March 27 NWSC partnered with Kampala Capital City Authority (KCCA) to install 300 water points to promote free hand washing, hygiene and disinfection. Key targets included the usually crowded public spaces such as markets, informal settlements and transport stations in Kampala's central business district and the city suburbs. The hand washing facilities also had a public health message inscribed on them to emphasize the importance of proper hygiene: "Your health is in your hands. Wash your hands with soap



and stay safe” NWSC promised to replicate this strategy in all its towns of operation across the country.

NWSC mobilized emergency support to secure and extend water services in water stressed urban areas. About 60% of Ugandans in urban areas live in informal settlements, which have low coverage of piped water. Whilst NWSC has been erecting public standpipes to serve such areas, several locations remain at the periphery of the water network. The measures announced by authorities to prevent the spread of the virus such as hand washing, physical distancing, or community-wide lockdowns are particularly difficult to observe in these places. To address these challenges, NWSC partnered with two leading private sector enterprises, MTN Uganda and Roofing Uganda LTD to improvise low-cost water service provision arrangements to benefit an estimated 30,000 residents.

NWSC planned to purchase 100 plastic water tanks of 10,000-litre capacity to build 23 emergency water reservoirs that would be refilled using water trucks. However, customers would be charged for this service, albeit at a subsidized rate.

NWSC and umbrella authorities suspended water disconnections for non-payment, aware that customers’ earnings were being interrupted by lockdown, a message that was re-enforced in a speech on 30th March by President Museveni. However this measure only provides temporary relief as customers will have to pay the accumulated arrears.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

The poor have continued to pay more than the rich for a unit of water despite the pro-poor measures to improve access to water across the country mainly due to process and systematic limitations in the place.

Water utilities response to the plight of the poor reflects the neoliberal principles embedded in the legal and policy frameworks that inform their strategies and performance contracts. The contracts emphasize the commercial viability rather than the public and equity benefits of water services. The Government commits water utilities to performance contracts that stipulate performance targets and obligations. These relate to maximizing revenue turnover, minimizing operating expenses, penalizing uncollected bills as well as non-revenue water among others. Given the emphasis on economic efficiency, the incentive for water utilities management is to focus on the affluent population who can afford to pay and easy to reach than the poor who are the actual opposite. As a result, water utilities management aren’t open to extending infrastructure to areas where there is no guaranteed easy and quick cost recovery and are few incentives to provide free water during crisis moments.

While water utilities are obliged to undertake pro-poor initiatives and activities to promote poor people’s access to water, these are largely funded by Government subsidies, which are meagre. Consequently pro-poor connections constitute only about 2% of the Utilities business.



4.2 Recommendations

4.2.1 Recommendations to Government

- 1) Build the capacity (human and financial) of the WURD to enforce and monitor equitable pricing and tariffs for water in the country.
- 2) Decentralize the functions of WURD especially tariff regulation and monitoring of standards to the regional water facility offices to increase presence and monitoring of water standards and tariffs of water utilities
- 3) Scrap VAT and service fee from all water tariffs especially for the poor to encourage increased access through lowered tariffs.
- 4) Include, pro-poor performance indicators for the utility companies at all levels including the utility organization, branch and individual staff contracts with clearly stated key performance indicators towards serving the poor. This will greatly limit selective targeting of the poor and increase equitable access to water for all poor in the country.

4.2.2 Utility companies

- 1) Invest in billing technology where the poor can load credit on their cards using a USSD code as well increase access to the pre-paid cards in the community for the pre- paid meters to make meaning for the poor. The utility companies should also increase coverage for the pre- paid meters in areas where they are short in supply. The service fee is collected for purposes of delivering the bills to the public stand pipes and this should be scrapped and investment made in digital billing through a pre- paid meters where there is no bill collection and related processes.
- 2) Connection and service fee if they can't be scrapped for the poor, they should be a) allowed to be paid in installments, b) be converted into water bills as the purpose for the water collection fees is meant for efficiency in water supply. This means people are charged an initial fees to discourage people connecting to the water system for fun and when they default they can re-apply since it is free. However this notion is limiting access to the poor when the fees to connect to the water supply system are prohibitive.
- 3) Clearly define the poor taking into account all the parameters including social and economic characteristics to effectively target the right population. The current definition leaves out salient issue which limit access to water for the poor at both rural and urban communities.
- 4) Involve the poor in tariff setting to clearly understand their challenges to accessing water for any effective tariff guideline, collection and payment modalities.
- 5) Decentralize pro-poor initiatives especially for NWSC to areas outside Kampala and informal settlements to effectively reach the poor. These initiatives can include, decentralizing recruitment of the pro-poor contact person at regional offices, town offices to handle all pro-poor issues. Expansion of pre- paid meters, increase access to pre-paid coins to mention.



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5. ANNEX:

5.1 *Formulae for determining water tariffs for respective utilities*

Formula for tariff determination NWSC

$$T_0 = (a\Delta I + b\Delta FI\Delta FX + c\Delta K) = T_1$$

Whereby—

T_0 = Tariff level at end of the base period.

a = Proportion of tariff associated with local costs based on the previous years audited financial accounts.

Δ = Change

I = Domestic retail price index as published by the Uganda National Bureau of Statistics and based on the underlying inflation rate.

b = The proportion of the tariff associated with foreign costs based on the previous years audited financial accounts.

FI = Foreign retail price index based on the United States Bureau of Labour Statistics.

FX = US Dollar to shilling exchange rate based on the Bank of Uganda mid exchange rate of the month of indexation.

c = Proportion of tariff associated with electrical power based on % of electricity cost to total cost as a proxy. (Audited financial accounts).

K = Price of electrical power per unit.

T_1 = Indexed tariff at beginning of the new period.



GUIDELINES FOR TARIFF SETTING

There are various ways to come up with an appropriate tariff that will cover O&M costs. Depending on what the community finds appropriate, the following cost calculations can be considered.

Basic tariff (BT)

These are the minimum costs to keep the water supply functioning, i.e. small repairs, cleaning, etc.

$$BT = \frac{\text{Operation costs} + \text{Administration costs} + \text{Maintenance costs}}{\text{No. of users}}$$

Efficiency tariff (ET)

This tariff includes the costs of replacements. The percentage should be related to the lifetime of the parts to be replaced.

$$ET = \frac{BT + 25\% BT}{\text{No. of users}}$$

Environmental Efficiency Tariff (EET)

These are costs related to water source and catchment area protection necessary to guarantee the water quality and quantity.

$$EET = \frac{ET + 25\% BT}{\text{No. of users}}$$

Leakage Tariff (LT)

These are costs linked to leakages in the system. This tariff should be considered in case a electric or diesel powered pumped is used.

$$LT = \frac{EET + 25\% BT}{\text{No. of users}}$$

Total Efficiency Tariff (TET)

This tariff includes all above mentioned costs and the initial investment costs. Considering a life span of 20 years the investment recovery will be roughly 5% of the investment costs. It is advisable to increase the tariff due to additional costs, such as depreciation or inflation.

$$TET = \frac{LEET + \text{Investment recovery (5\% of the capital cost)}}{\text{No. of users}}$$

$$TET = \frac{1.75 \times \text{Basic tariff} + \text{Investment recovery}}{\text{No. of users}}$$



Tariff Calculation Formula for Small Towns

$$T_1 = \frac{\sum OP + \sum WB + \sum CB - \sum TS_A}{BWS_{yi}}$$

T_1	=	Tariff for New Financial Year (UGX/m³)
OP	=	Operational Costs
	=	$\sum ERC + \sum R\&M + \sum C + \sum POA + \sum WQ + \sum M\&P$
ERC	=	Employee Related Costs *
$R\&M$	=	Repair & Maintenance Costs *
C	=	Cost of Consumables *
POA	=	Administrative Costs *
		(Rent, telephone, transport etc)
WQ	=	Water Quality Costs *
$M\&P$	=	Meeting & Publicity Related Costs *
WB	=	Water Board Fees
	=	(Projected Revenue from Business Plan + CB) x 0.05
CB	=	Capex Buffer
	=	Projected Revenue from Business Plan * F_{CB}
F_{CB}	=	10 to 25%
TS_A	=	Tariff Subsidy Allocation
	=	\sum Conditional Grant Allocation for Operational Subsidy
		<i>(Energy and System Specific Subsidies)</i>
BWS_{yi}	=	Projected Annual Water Sales from Business Plan (m³/yr)

* All costs are annual and are captured in the Business Plan.
Costs are in Uganda Shillings (UGX)