



August, 2021

COUNTING THE COST

A Financial Gap Analysis of Kabarole District WASH Master Plan, 2021

Author: Peter Magara

©2021

This paper was prepared by Peter Magara on behalf of IRC, with input from Martin Watsisi and Marieke Adank. The document was edited and laid out by Naomi Kabarungi and Tettje van Daalen. For questions or clarifications, contact IRC: www.ircwash.org/contact-us

Cite this publication as follows: Magara, P., Watsisi, M. and Adank, M., 2021. A financial gap analysis of Kabarole District WASH master plan.

This financial gap analysis follows the mid-term review of the Kabarole District WASH Master Plan 2018 - 2030. It analyses all costs so far spent and required to achieve the 2030 vision of ensuring sustainable, and basic water and sanitation services for all. The report covers costs related to provision of sustainable WASH services at district level, including for new infrastructure (CapEx), capital maintenance (CapManEx), and direct support costs (ExpDS).

We grant permission for individuals and organisations to share and adapt this material, in whole or in part, for non-commercial use, educational, scientific or development-related purposes, provided that the appropriate and full citation is given. This publication is licensed under a Creative Commons Attribution-NonCommercialShareAlike 3.0 Netherlands License.

View the terms of the license here: <https://creativecommons.org/licenses/by-nc-sa/3.0/nl/deed.en>

Contents

LIST OF ACRONYMS	5
EXECUTIVE SUMMARY	6
1.1 Background to the report.....	8
1.2 Objectives and Scope.....	9
1.3 Limitations of the Assessment	9
2.0 METHODOLOGY	9
2.1 Data collection	10
2.2 Data Analysis	11
3.0 COST OF WATER SERVICES	12
3.1 Water Service Ladder.....	12
3.2 Capital Expenditure.....	13
3.3 Capital Maintenance Expenditure.....	17
3.4 Direct Support Costs	20
4.0 COST OF SANITATION SERVICES	21
4.1 Sanitation Service Ladder	21
4.2 Capital Expenditure.....	22
4.3 CapManEx.....	23
4.4 Direct Support Costs	24
5.0 LESSONS AND OBSERVATIONS	25
6.0 RECOMMENDATIONS	26

Tables

Table 1: Sources for Secondary Data Collection	10
Table 2: Primary Data Collection Methods.....	11
Table 3: Breakdown of Potential Population to be served by June 2021.....	14
Table 4: CapEx for Additional Urban Population	15
Table 5: CapEx for Additional Rural Population	15
Table 6: Capital expenditure for Local Government on partners on water services	16
Table 7: Breakdown of Capital Expenditure by Source.....	16
Table 8 Funding Gap for Water Service for achieving Vision 2030	17
Table 9: Water Facilities at High and Moderate Risk of Breakdown.....	18
Table 10: CAPManEx for Urban Population Served.....	18
Table 11: CapManEx for Additional Urban Population to be served	18
Table 12: CapManEx for Rural Population Served.....	19
Table 13: CapManEx for Rural Population to be Served.....	19
Table 14: Funding Gap for CapManEx	20
Table 15: Funding gap for Direct Support Costs for Water Services	20
Table 16: Analysis Sanitation Service Levels Vs Midterm and 2030 Targets	22
Table 17: Operation and Capital Maintenance Expenditure for Sanitation services.....	23
Table 18: Ideal Direct Support Costs for Sanitation for 2030 Vision	24
Table 19: Funding Gap for Direct Support Costs for Sanitation Services.....	25

Figures

Figure 1: Kabarole District Local Government Expenditure 2018-2020	12
Figure 2: Analysis of Water Services levels Vs 2030	13
Figure 3: Percentage Breakdown of Capital Expenditure by Source.....	16
Figure 4: Breakdown of CapManEx Committed 2019 - 2021	19
Figure 5: Analysis of Sanitation Service Levels Vs 2030 Target	21

List of Acronyms

CapEx	Capital Expenditure
CapManEx	Capital Maintenance Expenditure
CBMS	Community Based Management System
ExpDS	Expenditure on Direct Support
DWO	District Water Office
NDP	National Development Plan
NGO	Non-Governmental Organisation
NWSC	National Water and Sewerage Corporation
PSP	Public Standpipe
RWSRC	Rural Water and Sanitation Regional Centre
SDGs	Sustainable Development Goals
VIP	Ventilated Improved Pit Latrine
WASH	Water, Sanitation and Hygiene
WC	Water Closet
WSSBs	Water Supply and Sanitation Boards
UGX	Uganda Shillings
US\$	United States Dollars

Executive Summary

Kabarole District Local Government and WASH partners developed and launched a [WASH Master Plan \(2018-2030\)](#) to achieve universal access to water, sanitation and hygiene services for the entire population of the district. The plan contains the broad vision, and strategies of Kabarole District government to implement the 13-year initiative. The strategies proposed are in line with the overarching country planning framework; Uganda's [National Development Plan \(NDPIII 2020/21-2024/25\)](#) and [Vision 2040](#). At district level, the plan has been used to inform the 5-year Kabarole District Development plan (2020/21-2024/25).

The mid-term review for the WASH Master Plan was set for 2021. This required a financial gap analysis and review of strategies to overcome hurdles in funding the implementation of the Master Plan. This financial gap analysis report therefore provides insight into all the necessary costs of achieving the 2030 vision and ensuring sustainable, and at least basic water and sanitation services for all. The report covers the relevant costs related to the provision of sustainable WASH services at district level, including the costs of implementation of new infrastructure (CapEx), the costs of capital maintenance (CapManEx) related to major repairs and rehabilitation, and direct support costs (ExpDS). The assessment involved the collection and analysis of both secondary and primary data from service providers, local government, development partners, and regional government entities.

Costs of Water Services

The target set by Kabarole District Local Government in the WASH Master Plan was to provide basic water services to all by 2030. Twenty one percent (21%) of the population was to have access to safely managed services whereas 79% were to have access to basic services.

Service monitoring data collected by IRC in 2019 showed that 136,666 people (55%) were receiving limited, unimproved, or no service at all. The additional population that needs to be served with basic or safely managed services is 181,888. The required CapEx to cover the population over the period 2022 - 2030 was estimated at US\$ 10,970,763 about US\$ 1,218,973 per year. Despite commitments made by local government, service providers and Hilton partners, 86% of the cost is yet to be mobilised.

The Capital Maintenance Expenditure required to sustain water services over the period 2022 - 2030 is US\$ 5,577,434 about US\$ 597,548 per year. The district local government, National Water and Sewerage Corporation (NWSC) and Mid-Western Umbrella Authority expect to cover 4% (US\$ 199,500) of the cost from ongoing funding leaving a gap of 94%.

The expenditure on direct support was also inadequate in enabling the district to fulfil its service authority role of supervising, monitoring and supporting water supply in the district. The required expenditure for the period 2022 - 2030 was US\$ 764,983 about US\$ 85,000 per year. However, the current expenditure is only US\$ 27,289 (32%) per year.

There is need for additional investment commitments from Kabarole District and its partners to cover the different cost components. Specific attention should be put on CapManEx that is grossly underfunded. The increase in CapEx by the district of up to 20% over the last two years is a good step but a stronger investment drive is required to cover the deficit.

Costs for Sanitation Services

The Kabarole 2030 vision for sanitation is to have at least 28% of households with safely managed and 72% with basic sanitation services. The 2019 monitoring data collected by IRC showed that 2,845 households lacked sanitary facilities while 5,690 facilities were shared by multiple households. An additional 13,937 households will also require private facilities due to population growth. This implies that the total facilities required is 22,472.

The CapEx required to put these facilities in place will be US\$ 3,478,666; this is based on the unit costs of US\$ 270 for accessing safely managed and US\$ 110 for basic services, with a target of 28% and 72% households respectively. Kabarole also has latrines in public or commercial areas in the Town Councils. There are 6 existing latrines and plans to construct 6 others. The CapEx for the new public latrines is estimated at US\$ 58,800 about US\$ 9,800 per toilet. The cost for investment in household latrines is covered by users while that of public latrines is covered by the district.

The estimated CapManEx for the period 2022-2030 is about US\$ 7.98 million or an average of about US\$ 886,702 per year. With the current tariff of (UGX 500) for public latrines, about US\$ 51 is estimated to be collected per use per year. The revenue collected is adequate to cover the required CapManEx cost (US\$ 6 per user per year) if all users pay for the services.

The ideal direct support costs were computed by estimating costs for sanitation and hygiene promotion through home improvement campaigns, follow-up, monitoring, verification and certification of villages. Other support activities included planning and review meetings, and staff time. The ideal support cost derived was US\$ 229,863 about US\$ 25,540 per year. The current expenditure is only 18% (US\$ 4707 per year) of what is required.

In order to achieve the vision of universal access to sanitation services, households must increase their investment through; making improvements on existing latrines and constructing new latrines for those that share or do not have one. The role of the district is to create demand and to address supply side constraints such as awareness about the latrine options suitable for different areas, certification of masons, strengthening capacity of private sector in collection and transportation of faecal sludge, to mention some.

Expenditure on indirect support costs was outside the scope of this assessment. These costs include system strengthening activities such as capacity building of service providers, developing monitoring and asset management systems, support to financial institutions among others. However, it is worth noting that some WASH partners namely HEWASA, Amref Health Africa and IRC Uganda are making significant investments in strengthening systems required to sustain WASH services. These partners have invested over US\$ 200,000 per year in the last 2 years.

1.0 Introduction

IRC is an international think-and-do-tank which operates at three distinct levels: global, national, and district, in support of water, sanitation and hygiene (WASH) services that last. In Uganda, IRC works with government, NGOs, and private sector to strengthen systems for delivery of sustainable WASH services for all.

IRC Uganda is working with Kabarole District Local Government and partners to deliver the vision of universal access to WASH services by 2030 as laid out in the Kabarole District WASH Master Plan 2018-2030. IRC Uganda believes that this vision can be achieved through development of strong and adaptive systems at national and district level that are backed by strong political leadership and commitment to deliver services. The current context of local government planning and financing for WASH services makes it difficult for district to achieve the vision on their own. IRC Uganda as a long-term partner of Kabarole is strengthening evidence-based planning, learning and coordination, and collective action of partners towards a common roadmap for the vision.

This vision is based on the key assumption that strong national systems are underpinned by strong national leadership, and that decentralised administrative units provide the right scale at which to model behaviour, test approaches, and identify solutions to drive the route to universal access to sustainable WASH services.

1.1 Background to the report

In 2018, IRC Uganda supported Kabarole District Local Government and WASH partners to develop a WASH master plan (2018-2030) for ensuring universal access to WASH services for the entire population of the district. The plan contains the broad vision, and strategies of Kabarole and its key development partners for the implementation of the 13-year initiative. The strategies proposed are in line with the overarching country planning framework; National Development Plan (NDPIII 2020/21-2024/25) and Vision 2040. At district level, the plan has been used to inform the 5-year Kabarole District Development plan (2020/21-2024/25).

The mid-term review for the WASH master plan was set for 2021. This required a financial gap analysis and review of strategies to overcome hurdles in funding the implementation of the Kabarole District WASH Master Plan.

Since the launch of the WASH master plan in February 2019, Kabarole district has realised various changes in the level of access to WASH services, status of infrastructure, and funding levels from both government and implementing partners. The priorities for government in terms of service delivery have changed with more interest in piped water systems than hand pumps that were among the options considered in computing investment and maintenance costs for full coverage.

Another change with far reaching impact was the creation of Fort Portal City in 2020 as a new local government administrative unit carved out of Kabarole District. Three sub counties of Karambi, Karago and Bukuku were annexed to Fort Portal City implying changes in population, and thus projections of the WASH services.

These changes prompted the need to review the costing chapter of the WASH master plan first focusing on the financial gaps between the estimated expenditure needs and available funding for WASH services. The costs for water and sanitation presented in this report have been recalculated based on the current population of Kabarole and the service levels.

Purpose of the Financial Gap Analysis

The major purpose of the financial gap analysis was to inform the implementation of the Kabarole District WASH Master Plan 2018-2030, by providing insight into all the necessary cost components required to achieve the 2030 vision and ensure sustainable service provision for all WASH sub-sectors (water, sanitation, hygiene, institutional WASH, water resource management) as indicated in the Kabarole District WASH Master Plan.

1.2 Objectives and Scope

1. To assess the required investment costs for CapEx, CapManEx, OpEx and ExpD for implementing the WASH master plan in the remaining period (years) based on the current population and geographical boundaries of the district.
2. To assess the current funding levels for WASH in the district by different stakeholders.
3. To analyse the required costs of achieving the Kabarole District WASH Master Plan vision by 2030 with focus on the costs of implementation of new infrastructure (CapEx), the costs of capital maintenance (CapManEx) related to major repairs and rehabilitation, operational and minor maintenance costs (OpEx) and direct support costs (ExpDS).
4. To recommend possible financing mechanisms and implementation channels that would suit the participation of both government and non-government actors from community to district level.

1.3 Limitations of the Assessment

The assessment focuses on the costs related to putting in place assets needed to achieve the 2030 vision, and the costs required for ensuring that these assets continue to provide sustainable services. The costing assessment does not include the costing of systems strengthening activities, which are needed to ensure that systems – including for monitoring, financing, asset management, water resource management, regulatory and capacity building – are in place at district and national level to enable sustainable WASH service provision for all.

The report is limited to an assessment of the costs related to the strategies as presented in the master plan. It does not consider alternative strategies with different mixes of service delivery models for achieving the 2030 vision.

The assessment sought to track actual expenditure on the different cost categories. However, data on operation and minor maintenance was not available. Very few hand pumps had data that varied a lot and only 6 piped schemes under the Mid-Western Umbrella and National Water and Sewerage Corporation (NWSC).

The assessment is limited to household water and sanitation services and does not include the costs of institutional WASH (WASH in schools, health facilities and public places) and water resources management.

2.0 Methodology

This section shows the methodology that was used for data collection, analysis, and costing the different WASH services levels, and needs of the population.

The analysis provides insight into the costs and financing of the following life-cycle cost categories:

- Expenditure on capital investments (CapEx): the costs of implementing new assets.
- Expenditure on Capital Maintenance (CapManEx): the costs of major repairs, rehabilitation and replacement of assets.
- Expenditure on Operation and Minor Maintenance (OpEx).
- Expenditure on direct support (ExpDS): the costs of the provision of direct support to WASH service providers and users, including ongoing training, monitoring and technical support.

Information is also provided on the investments of different WASH partners in Kabarole district as a part of their contribution towards covering the required costs. The financing gap is estimated from the required investments to cover the entire population and the committed funds by partners.

2.1 Data collection

The assessment involved the collection and analysis of both secondary and primary data. Table 1 gives an overview of the main secondary sources, while Table 2 gives an overview of the primary data collection tools applied and the data collected.

Secondary Data Collection

Table 1: Sources for Secondary Data Collection

Source	Data
2017 & 2019 Service Level Monitoring reports	These show the status of WASH service levels before the development of the WASH Master Plan in 2017 and the progress in 2019 right after the master plan was launched
Kabarole District Master Plan 2018 – 2030	Targets for different WASH service level Costing framework for service levels and overall costs for full coverage
2017 Rapid Sanitation Market Assessment	Sanitation Market Assessment for Kabarole
Kabarole District Conditional Grant Reports (2017/18, 2018/19 and 2019/20)	Expenditure by the Local Government on different WASH life-cycle costs (CapEx, CapManEx, ExpDS)

Primary Data & Methods of Collection

Table 2: Primary Data Collection Methods

Primary Data Collection Tool	Data Collection Method	Type of Data
1. Budget Tracking Tool	Data Compilation on Kabarole district budget and expenditure on WASH for the period 2018 – 2020 and the projected expenditure for 2021.	
2. Data collection on Operational Expenditure, CapManEx, and Revenue of the Mid-Western Umbrella Authority and NWSC	Assessment of the Operational Expenditure, CapManEx, and revenue of the utilities	Revenue, Operational Expenditure, and CapManEx of NWSC ¹ & Mid-Western Umbrella Authority ² for schemes under their jurisdiction.
3. Data collection on partner commitments (WASH CSO partners in Kabarole)	Collection of data on expenditure commitments of active WASH partners	CSO WASH Expenditure 2019 & 2020 and projections for 2021
4. Direct Support Costing Tool	Participatory assessment with staff of Kabarole District Water Office and the Rural Water and Sanitation Regional Centre 6 on estimated expenditure on personnel time (based on estimated number of days per year spent on direct support and other service authority functions by different staff) and out-of-pocket expenses (transport, per diems etc.).	Required and Actual Direct Support Costs

2.2 Data Analysis

The data collected was processed in excel. The different life-cycle cost categories provided the primary basis for analysis of costs and expenditure. The cost data was also converted into 2017 US\$ by using gross domestic product deflators from the World Bank and an exchange rate of US\$ 3590 per Uganda shilling.

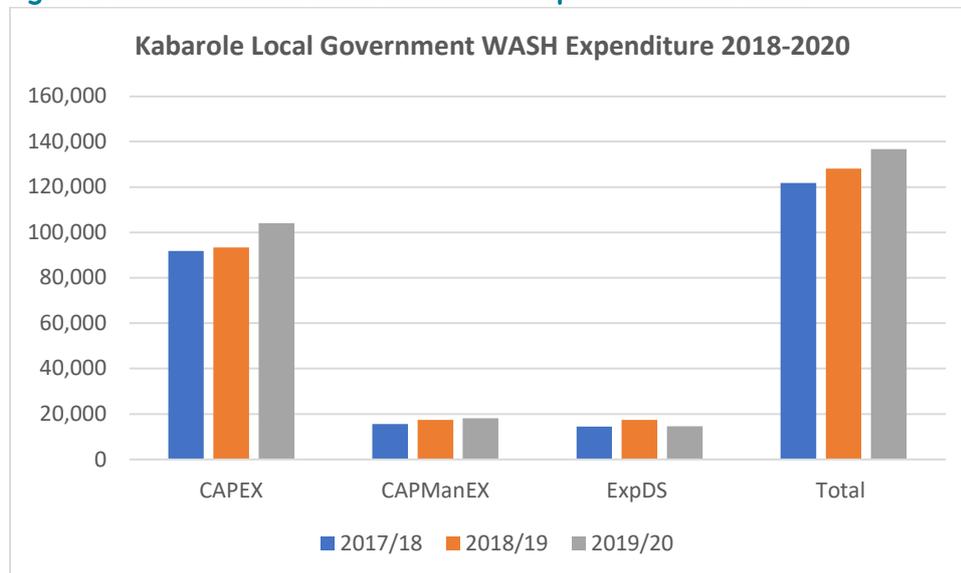
¹ Kiko, Mugusu and Kijura water systems

² Kicwamba, Kasenda, and Kasenda Rweihamba

Local Government Expenditure on Water Services

Overall, the local government expenditure on water services increased by 12% from baseline year of the master plan (2018) from US\$ 121,735 to US\$ 136,745 in 2020.

Figure 1: Kabarole District Local Government Expenditure 2018-2020



3.0 Cost of Water Services

This section presents the main findings related to the past, current and required expenditure on water service provision in Kabarole district.

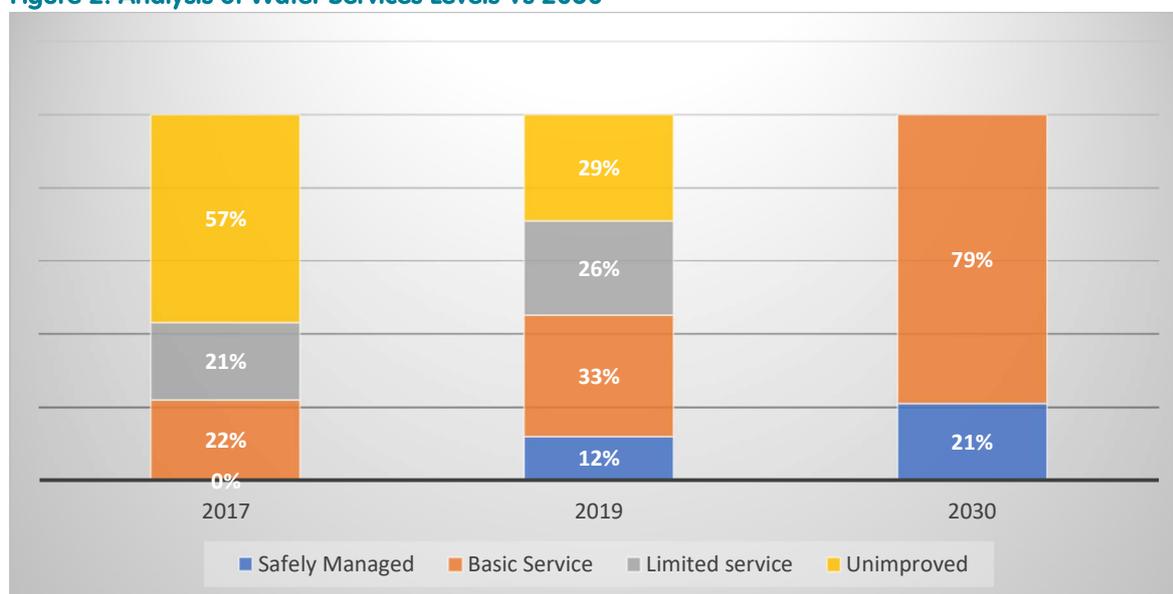
3.1 Water Service Ladder

Kabarole has four Service Delivery Models for rural water supply³. These include two models under the Community Based Management System (CBMS) – one for point sources, managed by Water and Sanitation Committees, and one for piped schemes, managed by Water Supply and Sanitation Boards (WSSBs), and the Utility and Self Supply models. The population is served with a mix of small town water systems, gravity flow schemes, and point water sources (hand pumps; shallow wells and deep boreholes). The people in town councils such as Kiko, Kijura, and Mugusu are served through household connections and public standpipes (PSPs) under small town piped network systems that are managed by NWSC. Those in smaller towns such as Kicwamba and Kasenda are also served through standpipes and household connections that are managed by the Mid-Western Umbrella Authority. The rest of the population is served through 7 gravity flow schemes, 482 shallow wells, 43 deep bore holes, and 237 springs. Rainwater harvesting is also an option but limited to less than 10% of the population.

³ The urban context has a utility managed SDM that is not included in this baseline of rural water services in Kabarole. Its main variants are the National Water and Sewerage Corporation model and a new model introduced in 2017 under the oversight of regional umbrella authorities.

According to the 2019 service monitoring data, only 12% of the population had access to safely managed services, 33% had access to basic services, while 26% and 29% had access to limited and unimproved services respectively. Overall level of services improved as those with safely managed increased from 0% to 12% while those with basic services increased from 22% to 33% as shown in the figure below.

Figure 2: Analysis of Water Services Levels Vs 2030



The 2030 target set by Kabarole District Local Government and partners in the WASH Master Plan was to provide basic water services to all by 2030. Twenty one percent (21%) of the population would have access to safely managed services whereas 79% would have access to basic services. The plan projected that 12% and 40% of the rural and urban population respectively would have access to safely managed services by 2030. Eighty eight percent (88%) of the rural and 60% of the urban population were expected to have basic services.

Comparison of the 2019 service levels and the 2021 midterm targets (11.3% safely managed and 75% basic) shows that the target for safely managed services was achieved (12%) though that for basic services was off by 42 percentage points. This shows a need for fast tracking additional investment in water infrastructure and recurrent costs (direct support, CapManEx and OpEx).

3.2 Capital Expenditure

This section presents estimates of the Capital Expenditure (CapEx) required for putting in place the additional infrastructure needed to achieve the 2030 water service goals. It further provides insight into the commitments for future required investments.

Required CapEx for Achieving the 2030 Vision

The service monitoring data for 2019 shows that 136,666 people (55%) were receiving limited, unimproved, or no service. However, with investments made by local government and development partners in 2020 and 2021, about 13,092 additional people are expected to be served by December 2021. The breakdown of the additional people is presented in table 3. This will leave a population of 123,574 with limited or no service and by 2030, an additional 58,314 people will be residents in the district due to population growth.

Overall, the additional population that needs to be served with basic or safely managed services is 181,888. Forty percent (40%) of this population is resident in urban whereas 60% is in rural areas.

Table 3: Breakdown of Potential Population to be Served by June 2021

Piped schemes	Extensions (Kms)	PSPs	Popn served
Rweihamba Kasenda	14.7	7	700
Kasenda	4.9	2	200
Rwetera	3.5	5	500
Kibasi	1.5	3	360
Busoro – Nyabushenyi	1.5	2	200
Nyabwina – Busoro	1	2	200
Kabende	3.3	3	300
Mahyoro GFS	3	4	400
			2860
New Systems			
Kasenda	11.8	8	800
Harugongo	19.7	9	900
			1700
Small Town Systems (NWSC)	New Domestic Connections		
Kiko	72	24	2472
Kijura	36	36	3636
Mugusu	24	24	2424
			8,532
Potential population to be served			13,092

Additional CapEx required

Urban

Table 4: CapEx for Additional Urban Population

Service Delivery Model	Additional Population	Unit Costs (US\$ per person)	CAPEX Required 2022 - 2030
Household Connections	32,012	107	3,425,317
Public Stand Posts	40,743	60	2,444,576
Total	72,755		5,869,893

Rural

Table 5: CapEx for Additional Rural Population

Service Delivery Model	Additional Population	Unit Cost per person served (US\$)	CAPEX Required
HH Connections	13,096	107	1,401,266
Public Standpipes	27,283	60	1,636,993
Hand Pump	68,754	30	2,062,611
Total	109,133		5,100,870

Committed CapEx

The Capital Expenditure of the district local government and partners increased by 25% from US\$ 128,351 to US\$ 161,316 in 2020. The budgeted expenditure for 2021 was US\$ 191,000 which was also higher than that of 2020. The budgeted CapEx is expected to enable up to 13,092 additional people to have access to basic water services as presented in the section above. Table 6 shows the breakdown of the capital expenditure for local government and partners for the period 2019 – 2021.

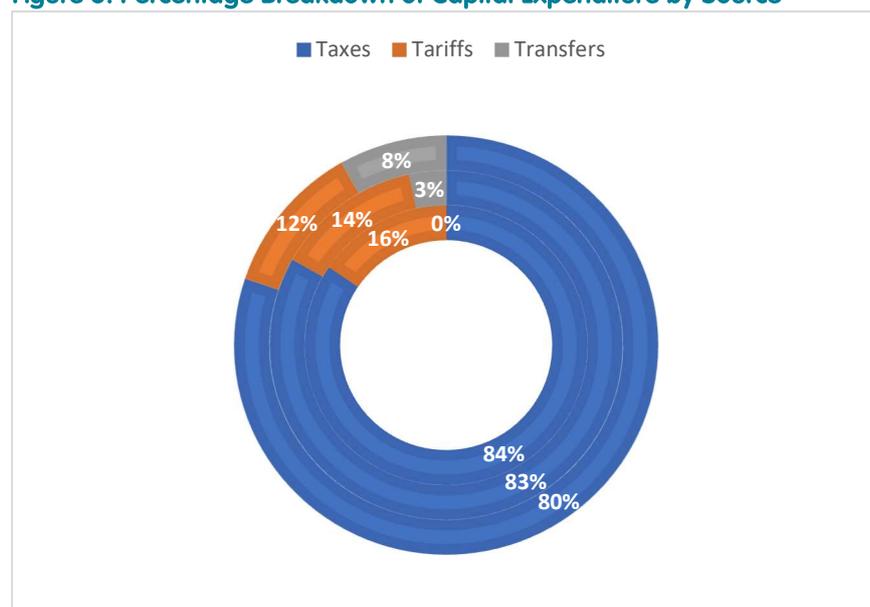
Table 6: Capital Expenditure for Local Government and Partners on Water Services

Partners	CapEx 2019	CapEx 2020	Budgeted CapEx 2021
			US\$
Local Government (Taxes)	93,351	104,056	139,519
NWSC Utility (Tariffs)	20,000	21,715	22,191
Umbrella Authority (Tariffs & taxes)	15,000	30,102	13,626
Hilton Partners (Transfers)		5,442	15,719
Total	128,351	161,315	191,055

Table 7: Breakdown of Capital Expenditure by Source (US\$)

	2019	2020	2021	Total
Taxes	108,351	134,158	153,145	395,654
Tariffs	20,000	21,715	22,191	63,906
Transfers		5,442	15,719	21,161
Total	128,351	161,315	191,055	480,721

Figure 3: Percentage Breakdown of Capital Expenditure by Source



The CapEx committed by the district local government and partners including IRC Uganda, NWSC, and Mid-Western Umbrella Regional Authority over the period 2019 – 2021 was US\$ 480,723. The CapEx committed for the period 2022-2030 was estimated by taking into consideration the current average annual investment of the local government and NWSC in CapEx and spreading it over the remaining period of the master plan. Comparison of the total CapEx required, and the expected funding showed a gap of US\$ 9,592,082 that has to be mobilised.

Table 8 Funding Gap for Water Service for Achieving Vision 2030

CapEx Required (US\$)		Expected Funding 2022-2030	Committed 2019 - 2021
Urban	5,869,893		
Rural	5,100,870		
Total	10,970,763		
Funding Gap	9,592,083		

Summary of CapEx Gap

- Required CapEx to achieve 2030 Vision: US\$ 10,970,763 about US\$ 1,218,973 per year.
- Expected funding CapEx: US\$ 1,378,680 (13%) of the required funding.

Despite the increment in CapEx funding over the period 2018 – 2020, the funding gap to achieve the 2030 vision is still big as 87% of the required funding is yet to be mobilised.

3.3 Capital Maintenance Expenditure

This section presents the Capital Maintenance Expenditure (CapManEx) required for covering major repairs, rehabilitation and replacement of water infrastructure in Kabarole district. It further presents committed expenditure on capital maintenance, the main sources of financing and the financing gap.

The capital maintenance expenditure for household connections was estimated at US\$ 7 per person per year whereas that of public standpipes and hand pumps were at US\$ 5 and US\$2 per person per year respectively based on the costing framework of the master plan. These unit costs were used to calculate the required CapManEx costs for the additional population. The costs for infrastructure replacement were also considered. Asset management data from the 2019 service monitoring exercise was used to identify facilities that were at risk. The table below shows the number of facilities that were found to be at high and moderate risk of breakdown due to age.

Table 9: Water Facilities at High and Moderate Risk of Breakdown

Type of Facility	Number	Unit costs for replacement (US\$/facility)	Total costs of replacement (US\$)
Shallow wells	402	850	341,700
Deep wells	35	850	29,750
Tap Stands	90	60	5,400
Total			376,850

Protected springs were excluded from the replacement cost analysis since the technology is being phased out in the district. For shallow wells and deep wells, the unit cost for replacement was determined from an assessment by the Hand Pump Mechanics Association (HPMA) conducted in 2020 on 10 hand pumps that were to be replaced. The unit cost for replacement was at US\$ 850 for hand pumps on shallow and deep wells and US\$ 60 for standpipes. Based on this computation, the required costs of replacement were equivalent to US\$ 376,850.

Table 10: CapManEx for Urban Population Served

CapManEx Popn served	Popn Served	CapManEx required
HH connections	18,736	1,180,396
Public standpipes	56,209	2,529,420
Total	74,945	3,709,816

Table 11: CapManEx for Additional Urban Population to be served

Service Delivery Model	Additional Population	Unit Costs (US\$ per person)	CapManEx
Household Connections	32,012	7	224,084
Public Stand Posts	40,743	5	203,715
Total	72,755		427,799

Table 12: CapManEx for Rural Population Served

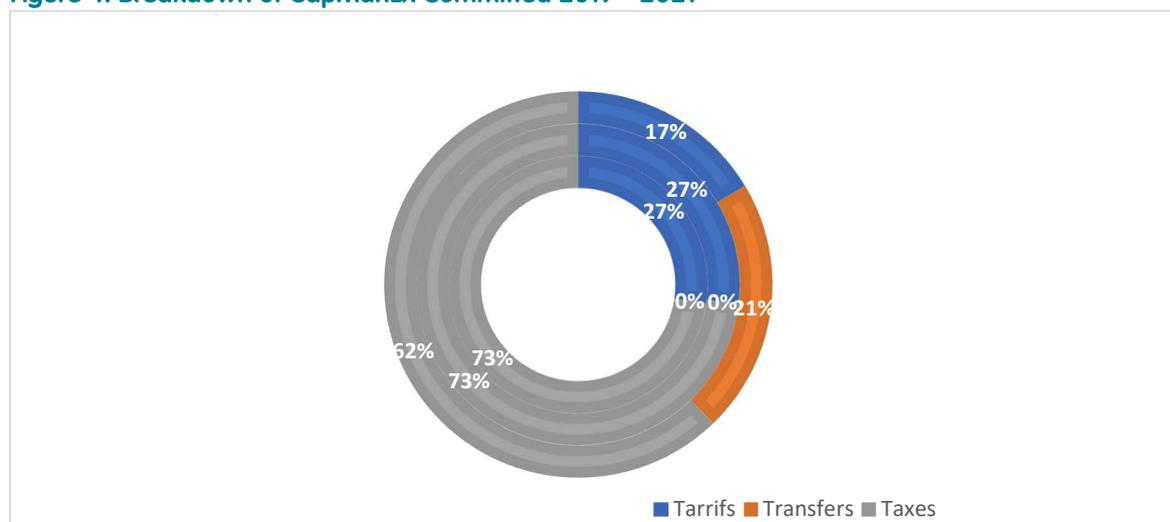
Service Delivery Model	Population Served	CapManEx
HH connections	7,495	472,158
Public standpipes	12491	62,455
Hand pump	29,978	539,610
Total	49,964	1,074,223

Table 13: CapManEx for Rural Population to be Served

Service Delivery Model	Population to be served	CapManEx
HH connections	13,096	91672
Standpipe	27,283	136,416
Hand pump	68,754	137,507
Total	109,133	365,595

The CapManEx committed by the local government and district partners including NWSC⁴ and Aquaya⁵ for the period 2019 – 2021 was US\$ 88,174. The CapManEx expected for the period 2022-2030 was estimated by taking into consideration the current average annual investment of the local government and NWSC in CapManEx and spreading it over the remaining period of the master plan. Comparison of the total CapManEx required and the expected funding showed a gap of US\$ 5,377,934 yet to be mobilised.

Figure 4: Breakdown of CapManEx Committed 2019 - 2021



⁴ Capital Maintenance for Kiko, Mugusu and Kijura Water systems

⁵ Rehabilitation of 10 hand pumps

Table 14: Funding Gap for CapManEx

CAPManEX Required (US\$) 2022 – 2030		Committed 2022-2030	Committed 2019 - 2021
Urban	4,137,616	199,500	88,174
Rural	1,439,818		
Replacement costs (Urban + Rural)	376,850		
Total	5,954,284		
Funding Gap	5,754,784		

Summary of CapManEx Gap

- Required CapManEx to achieve 2030 Vision: US\$ 5,954,284 about US\$ 661,587 per year.
- Expected Funding for CapManEx is US\$ 199,500. Only 3% of the required funding.

Overall, the CapManEx is grossly underfunded with about 97% of the required cost yet to be mobilised if the 2030 Vision is to be achieved.

3.4 Direct Support Costs

The direct support costs include staff time of District Water Office and the Rural Water and Sanitation Centre (RWSC6) staff, and support activities such as planning and coordination, capacity development, monitoring and supervision. The expenditure and committed costs for 2021 were captured from the District Water and Sanitation Conditional grant reports for the financial years 2017/18, 2018/19, 2019/20 and from the 2020/21 budget projections.

Ideal Direct Support Costs for 2030 Vision

The ideal direct support cost required to achieve the 2030 vision is US\$ 764,983. The amount committed for the period 2019 – 2021 was US\$ 81,869 whereas the expected funding for the period 2022 -2030 is US\$ 245,607. The expected funding is mainly from the District Local Government and includes the costs of staff time and out of pocket costs. Based on the computations, the funding gap for the period 2022 – 2030 for direct support for water is US\$ 519,376.

Table 15: Funding Gap for Direct Support Costs for Water Services

ExpDs Required	Expected funding 2022-2030	Committed 2019 -2021
US\$ 764,983	US\$ 245,607	US\$ 81,869
Funding Gap	US\$ 519,376	

Summary Direct Support Cost Gap

- Required Direct Support Costs to achieve 2030 Vision: US\$ 764,983 about US\$ 85,000 per year.
- Expected Funding for Direct Support is US\$ 245,607. Only 32% of the required funding.

Direct support has the lowest funding gap compared to CapEx and CapManEx. However, 78% still has to be raised to enable the district to achieve universal access to water services by 2030.

4.0 Cost of Sanitation Services

The main facilities used for capture and containment of faecal waste include traditional pit latrines, VIP Latrines, and water closets (WCs). Majority of the households (94%) have sanitation facilities. Traditional pit latrines make up 95% of the facilities while ventilated improved pit latrines 5% and flashing toilets 1%. Eighty eight percent were privately owned whilst 12% shared by multiple households. The 2019 service monitoring data shows that the proportion of households accessing basic sanitation services increased from 28% in 2017 to 63% in 2019 while those accessing limited services declined from 53% to 22%. The Kabarole 2030 vision for sanitation was to have at least 28% of households with safely managed and 72% with basic sanitation services.

4.1 Sanitation Service Ladder

Sanitation service levels were generally above the projected targets for basic and limited services for 2021 as shown in the table below. However open defecation remains a challenge. Fifteen percent (15%) of households showed evidence of open defecation.

Figure 5: Analysis of Sanitation Service Levels Vs 2030 Target

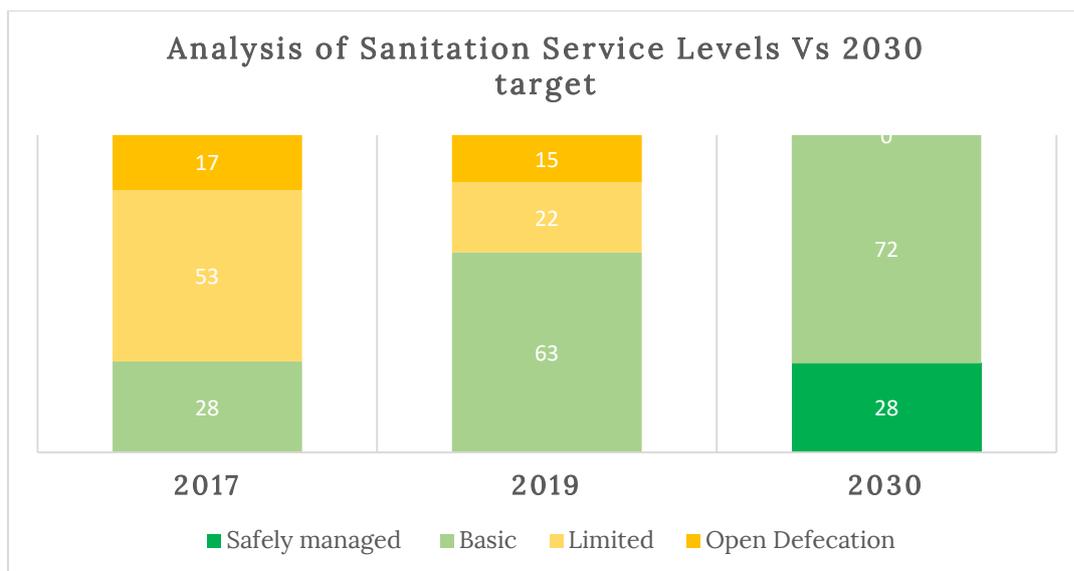


Table 16: Analysis Sanitation Service Levels Vs Midterm and 2030 Targets

Service Level	Service Level		
	2019	2021	2030
Safely Managed		5.90%	28%
Basic	63%	48.10%	72%
Limited	22%	29.10%	
Un improved	0%	16.90%	
Open defecation	15%		

4.2 Capital Expenditure

This section presents estimates of the Capital Expenditure (CapEx) required for putting in place the additional infrastructure needed to achieve the 2030 sanitation goals.

Required CapEx for Achieving the 2030 Vision

The Kabarole 2030 Vision for Sanitation was to have at least 28% of households with safely managed and 72% with basic sanitation services. By 2030, the 306,798 people expected to be residing in Kabarole (based on population projections) will need 22,472 sanitary facilities providing basic and safely managed sanitation services. The 2019 monitoring data shows that 2,845 households lack sanitary facilities while 5,690 are shared by multiple households. An additional 13,937 additional households will also require private facilities due to population growth and 2,845 and 5,690 facilities will be required to serve households that do not have and those that are sharing. This implies that the total facilities required is 22,472.

The CapEx required to put these facilities in place will be US\$ 3,478,666 this is based on the unit costs of US\$ 270 and US\$ 110 for accessing safely managed and basic services and that 28% of the households are targeted to access safely managed services while 72% have basic services.

4.3 CapManEx

This section presents the actual expenditure on major repairs, rehabilitation, and replacement (CapManEx) and the expenditure required for ensuring sustainable sanitation services in Kabarole district.

The expenditure on operations and maintenance of public latrines includes expenditure on care takers, and materials for keeping the latrines hygienic and in good condition. However, there was no data available on the actual costs since records were not available. The OpEx for households was minimal and was not included in the analysis. The public latrines considered in the analysis are those found in commercial areas such as markets and other business areas in the Town Councils. These normally have a minimum of 6 stances and serve up to 600 people.

Expenditure on Capital Maintenance (CapManEx) consists of two components: major repairs and latrine emptying. The estimation of costs for latrine emptying of public latrines is based on a frequency of twice a year. The cost each time is about UGX 720,000 or US\$ 200 per public latrine per year. Household latrines such as water closets with septic tanks are expected to be emptied every three years at a cost per emptying service of UGX 200,000 (US\$ 55) or UGX 66,666 (US\$ 18) per latrine per year. The major repair and replacement costs for both public and private latrines are assumed to be around 10% of facility CapEx per year.

The total estimated CapManEx for the period 2022–2030 is estimated to amount to about US\$ 7.98 million or an average of about US\$ 886,702 per year.

Table 17: Operation and Capital Maintenance Expenditure for Sanitation Services

Cost Component	WCs	Improved Latrines	Latrines in Public Places
Existing Facilities	5,349	39,228	6
No of New Facilities	6,292	16,180	6
CAPEX (New)	1,698,883	1,779,782	58,800
OPEX	N/A	N/A	N/D
Emptying (New Facilities)	1,038,206		9,600
Emptying (Existing Facilities)	882,625		9,600
CapManEx	566,294	1,456,186	5,880
CapManEx (Existing)	481,432	3,530,498	
Total OPEX + CapManEx	2,968,557	4,986,684	25,080
Total CapManEx	7,980,321		
Cost per year	886,702		

The costs for CapManEx of public toilets are normally covered by users. A tariff of UGX 500 is charged per use at most of the facilities. With the current tariff, about US\$ 51 is collected per use per year assuming one toilet visit per day. The revenue collected is adequate to cover the required CapManEx costs (US\$ 6 per user per year) assuming that all the users pay for the services.

4.4 Direct Support Costs

Direct support activities related to sanitation services include sanitation and hygiene promotion, supervision, capacity building and regulation of sanitation service providers. The costs related to these activities are borne by the Kabarole District Local Government and include the personnel costs of staff working on sanitation and hygiene, and non-personnel costs like transport and per diems.

Ideal Direct Support Costs for 2030 Vision

The ideal direct support costs were computed by estimating costs for sanitation and hygiene promotion through home improvement campaigns, follow-up, monitoring, verification and certification of villages. Other support activities such as planning and review meetings, and staff time were also taken into consideration. The ideal support costs amounted to US\$ 229,862 as shown in the table below.

Table 18: Ideal Direct Support Costs for Sanitation for 2030 Vision

Ideal Exp Direct Support	Units	Unit costs (UGX)	No of units	Costs (UGX)	Cost US\$
Home improvement campaigns	Villages	1,700,000	237	403,325,000	112,124
Scale up CLTS	Villages	1,400,000	128	178,850,000	49,720
Training & follow-up	Events	1,260,000	40	50,400,000	14,011
Progress review meetings	meetings	3,500,000	9	31,500,000	8,757
Staff time	Annual cost	18,050,000		162,450,000	45,250
Total				826,525,000	229,862

Committed Direct Support Costs

The committed direct support costs for the period 2022 – 2030 were mainly from the District Local Government, and RWSRC 6 and included mainly the costs of staff time and out of pocket costs. These costs were computed based on the current level of allocation. Based on the computations, the funding gap for the period 2022 – 2030 for direct support for sanitation is US\$ 102,756.

Table 19: Funding Gap for Direct Support Costs for Sanitation Services

Ideal Direct Support costs US\$ 2022 -2030	Expected Funding US\$ 2022 - 2030	Committed US\$ 2019 - 2021
229,863	127,107	42,370
Funding Gap	US\$ 102,756	

5.0 Lessons and Observations

Kabarole District Local Government is gradually shifting to piped water networks. Data on capital expenditure and commitments for 2020 and 2021 shows that investment in piped water systems was six times more than that of hand pumps. Commitment towards capital expenditure also showed a big leap by US\$ 40,000 in just one year.

The expenditure on indirect support costs was outside the scope of this assessment. These costs include system strengthening activities such as capacity building for service providers, developing monitoring and asset management systems, supporting financial institutions, among others. However, it is worth noting that some WASH partners including HEWASA and Amref Health and IRC Uganda are making significant investments in strengthening systems required to sustain WASH services. HEWASA and Amref Health for example committed US\$ 50,000 and US\$ 80,000 respectively in 2020 and 2021 towards capacity building for sanitation entrepreneurs, support to financial institutions and strengthening local government capacity. On the other hand, IRC Uganda is investing approximately US\$ 150,000 per year in strengthening planning, learning and coordination, monitoring systems, and enhancing citizen voice and accountability. These costs seem invisible since they are not captured in the master plan and yet are critical in creating the enabling environment for provision of sustainable WASH services.

6.0 Recommendations

The recommendations highlighted in this section are based on the actions proposed by Kabarole district stakeholders during the validation workshop for this assessment. The District WASH Task Team is expected to follow up on the following actions:

- Strengthen coordination on annual capital investment planning and budgeting by the District Water Office, National Water and Sewerage Corporation and Mid-Western Umbrella to ensure a common roadmap is followed.
- District planner to provide guidelines on how sub-counties can allocate WASH investments as part of the District Discretionary Development Equalization Grant.
- IRC Uganda to support the task team to track ongoing sub-county investments in WASH and their contribution to the master plan implementation process.
- Disseminate the Financial Gap Analysis at sub-county level and ensure that WASH allocations are included in their annual budgets.

Visiting address

IRC Uganda Country Office
Plot 52A Ntinda II Road
Naguru, Kampala

Postal address

P.O. Box 40398
Kampala, Uganda

T : +256 758 200808

ugandacountryprogramme@ircwash.org

ircwash.org/uganda