CWIS

Sanitation Data Ecosystem Profile

Kampala City - 2021

Executive Summary

This report overviews the sanitation data ecosystem in Kampala in 2021, and consists of two sections: 1) a review of service level data across the sanitation value chain, and an analysis of some key factors that influence the availability and sustainability of data, including reporting structures, the regulatory environment, and funding sources; and 2) availability of sanitation financial data, and what affects availability. This report provides a foundation for Kampala's service providers to develop a strategy outlining action points to bridge data gaps, improve data usage, and **facilitate data-driven decision-making in sanitation.** This report does not cover data reliability and data quality, although we note that these are important issues that must be tackled in any strategy to improve accountability structures for sanitation service delivery.

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Report Highlights

#1

Sanitation data is not representative of the service area, requiring strong regulatory mechanisms for improvement.

Except for the datasets on household access, sewer connection, and treatment quality, all other datasets that are continually updated do not cover the entire city ; those that are representative of the entire service area are one-off studies linked to programs funded by donors/ International Financial Institutions (IFIs). To tackle the issue of data coverage, there is a need for strong regulatory mechanisms for Non-Sewered Sanitation (NSS) that bring all private service providers, operators, and institutions into the monitoring system. It is equally critical for regulations to be supported with sufficient resources for implementation and enforcement. However, the service authority with the mandate to deliver NSS services, the Kampala Capital City Authority (KCCA), currently relies entirely on central government transfer for its institutional budget and has very limited resources for sanitation activities aside from donor/ IFI funding.

#2

KCCA collects data on public toilets and the KCCA Call Center within its existing budget.

This is a continuation of data collection efforts initially begun under donor supported programs where the use cases are clear and the resource requirements can be accommodated in the existing budget. The KCCA Call Center was originally set up as a hotline related only to Fecal Sludge Management (FSM) but evolved into a public interface for the entire institution, as KCCA saw the value addition.

#3

Toilet access datasets vary in classification, hindering direct comparisons and long-term progress tracking.

All datasets on toilet access that are continually updated and representative of Kampala are collected by the Uganda Bureau of Statistics (UBOS). Besides the national census updated every ten years, UBOS also collects data for the Uganda Demographic and Health Survey (UDHS) every five years and for the Uganda National Household Survey (UNHS) every three years. While the classification of toilet access types adopted by the UDHS is aligned with the global standards set by the WHO-UNICEF Joint Monitoring Programme (JMP), the other two datasets follow somewhat different toilet typologies that do not enable direct comparisons with the UDHS data. If the toilet classifications used by the census and the UNHS can be harmonized and aligned with that used by the UDHS/ JMP, data from these three surveys can become a powerful and sustainable tool to track overall sanitation progress in Kampala in the long term.

#4

Two authorities collect separate datasets on fecal sludge disposal, causing duplication and inefficiency.

In Kampala, the two service authorities responsible for Sewered Sanitation (SS) and NSS each collects its own dataset on disposal, for different purposes. The National Water and Sewerage Corporation (NWSC) records payment-related details of each truck, for its own accounting purposes. Meanwhile, KCCA instead wants to understand the origin of the FS that reaches the treatment plant. Nevertheless, both authorities have staff stationed at the disposal sites to capture basic truck information. If all indicators captured by the two datasets can be collected by a single authority and shared with the other, this would significantly increase resource efficiency and reduce duplication.

#5

Treatment quality data in Kampala is well-monitored, but regulation for reuse of by-products is limited.

A strong mechanism exists to monitor data on the quality of treatment, owing to clear mandates and regulatory mechanisms at the national level. Besides the data submitted by NWSC as part of its performance contract requirements, national level authorities under the Ministry of Water and Environment also independently collect and conduct testing on water samples. Both datasets are updated on a quarterly basis, ensuring continued monitoring of compliance. On the other hand, monitoring and regulation for the reuse of treatment by-products are still nascent. NWSC currently collects the sales of treated biosolids for its revenue accounting purposes, but is yet to start reusing treated effluent.

#6

Kampala has abundant financial data on sanitation, but limited data exchange among stakeholders.

Data is available, or can be easily estimated, across all main categories of revenue, expenditure, and direct subsidies, wherever applicable. Nevertheless, the financial data of one service authority may not always be accessible even to its counterpart. Beyond just financial data, data exchange in general is limited among the key stakeholders in Kampala and often only happens on request basis.

Summary Table: Availability and Sustainability of Key Datasets Across the Sanitation Service Chain

Sanitation service chain	Dataset area	Data collected?	Data is representative of the entire city (for access) / covers all service providers (for emptying & conveyance)?	Periodically updated?
Access & containment	Access—Household Toilets (incl. Individual Household Latrines—IHHLs, and shared HH toilets)	Y*	Y	Every 10 years (last updated in 2014)
		Y	Y	Every 5 years (last updated in 2016)
		Y	Y	Every 3 years (last updated in 2019/20)
		Y	Y	One off survey in 2017
	Access—Public and Community Toilets	Y (PT)	N	Daily
		Y (CT)	Y	One off survey in 2016
	Access—Educational Institutions	Y	N	Annually
	Access—Healthcare Facilities	Y	N	Annually
	Access / Containment – Sewer Connection	Y	Y	Daily
	Containment – Non- Sewered Sanitation (NSS)	Y	Y	One off survey in 2017
Emptying & conveyance	Emptying (NSS)	Y	N	Daily
		Y	N	Daily
	Disposal at Treatment Plants (NSS)/ Decanting stations	Y	N	Daily
		Y		Daily
Treatment	Treatment Quality	Y	N/A	Quarterly
		Y	N/A	Quarterly
Reuse	Reuse—Treated Effluent	N	N/A	N/A
	Reuse—Treated Biosolids	Y	N/A	Irregularly

Institutionalized reporting
National/State programmatic reporting
Own activity
Donor/ IFI program reporting

National/State transfer
Own revenue
IFI/donor funding; Corporate Social Responsibility (CSR)
Private sector; self-sustainable CBO activities

*In this summary table, references and sources have been removed to aid readability; however, full references and sources are provided in tables in the main body of the report

Data Across the Sanitation Service Chain

Achieving the Sustainable Development Goal (SDG) of ensuring safely managed sanitation for all will require accurate and up-to-date sanitation data at the city level to facilitate appropriate planning, management and decision making. This should encompass not only the typology and extent of sanitation access throughout the city, but also the management of waste from containment to emptying, transport, and treatment. However, for many cities including Kampala, obtaining and maintaining sanitation data can be a significant challenge, resulting in gaps in data availability.

This section outlines two key data dimensions: the generation of datasets across the sanitation service chain which are critical for planning and decision-making by the two sanitation service authorities in Kampala, the Kampala Capital City Authority (KCCA) and the National Water and Sewerage Corporation (NWSC); and the continued update of these datasets.

Overview of Data Availability and Data Gaps in Kampala

Table 1 summarizes the availability of datasets in Kampala mapped to the data areas across the sanitation service chain, the coverage of each dataset, and the frequencies of update. In cases where more than one data source is available for the same indicator data point, each dataset is presented in a separate row.

Table 1: Overview of data availability and data sustainability across the sanitation service chain

Sanitation service chain	Dataset area	Data collected?	Data is representative of the entire city (for access) / covers all service providers (for emptying & conveyance)?	Periodically updated?
Access & containment	Access—Household Toilets (incl. Individual Household Latrines—IHHLs, and shared HH toilets)	Y[1]	Y	Every 10 years (last updated in 2014)
		Y[2]	Y	Every 5 years (last updated in 2016)
		Y[3]	Y	Every 3 years (last updated in 2019/20)
		Y[4]	Y	One off survey in 2017
	Access—Public and Community Toilets	Y[5] (PT)	N[6]	Daily
		Y7 (CT)	Y	One off survey in 2016
	Access—Educational Institutions	Y[8]	N[9]	Annually
	Access—Healthcare Facilities	Y[10]	N[11]	Annually
	Access / Containment – Sewer Connection	Y[12]	Y[13]	Daily
	Containment – Non- Sewered Sanitation (NSS)	Y[14]	Y	One off survey in 2017
Emptying & conveyance	Emptying (NSS)	Y[15]	N[16]	Daily[17]
		Y[18]	N[19]	Daily
	Disposal at Treatment Plants (NSS)/ Decanting stations	Y[20]	N[21]	Daily
		Y[22]		Daily
Treatment	Treatment Quality	Y[23]	N/A	Quarterly
		Y[24]	N/A	Quarterly
Reuse	Reuse—Treated Effluent	N[25]	N/A	N/A
	Reuse—Treated Biosolids	Y[26]	N/A	Irregularly

Kampala has high availability of data across the entire service chain. However, a significant challenge exists around the coverage of the datasets and their update and maintenance. Other than the data collected for household toilet access, datasets that are representative of the entire city are collected through one-off studies, while those that are continually updated do not represent the entire service area. For example, key datasets on onsite containment and access to community toilets are inclusive of all sanitation facilities in the city but have not been updated since the studies were undertaken years ago. On the other hand, the periodically updated datasets on public toilets and toilet access in educational institutions and healthcare facilities are limited to publicly owned facilities and institutions.

Similarly, two initiatives have been implemented to record and update data for the emptying of onsite containment systems, but neither dataset captures all service providers or service requests: the FSM Call Center links desludging requests from customers to private operators and records the services, yet not all households choose to request services through the Call Center; the GIS Tracking Application captures activities of the desludging operators, but not all operators are registered on the platform or always keep their devices on during operations.

If strong regulatory mechanisms can be put in place to bring all private institutions and service operators into the system, **existing datasets will be able to offer powerful insights** on the sanitation service scenario **across the entire city.** This could allow the service authorities to identify service gaps by group or geography, and also enable targeted service improvement initiatives and track their implementation.

In contrast with the lack of either coverage or update for most datasets, three datasets exist on household toilet access, which are both representative of Kampala and are continually updated. All three datasets are collected by the Uganda Bureau of Statistics (UBOS) - the national census, which is updated every ten years; the Uganda Demographic and Health Survey (UDHS), every five years; the Uganda National Household Survey (UNHS), every three years. Besides the census which covers each and every household in the country, both UDHS and UNHS are also designed to allow representative sampling of Greater Kampala[27], among other regions across the country.

However, the toilet typologies used in these surveys are not identical to each other, making it difficult to compare the data points in these datasets and use them together to track sanitation progress. The UDHS uses a classification of toilets that is aligned with the definitions used by the WHO-UNICEF Joint Monitoring Programme (JMP)[28], and the dataset can be used to analyze the percentage of the population that falls into the main JMP categories, from open defecation to at least basic[29]. On the other hand, the census classifies toilets into: flush; ventilated improved pit latrine; covered/ uncovered pit latrine with/ without slab; ecosan; and other, but does not, for instance, distinguish between a flush toilet connected to sewer system/ septic tank/ pit latrine and one which is connected to open drains/ water bodies/ etc. This makes it difficult to understand the percentage of flush toilets that are considered "improved" by JMP. The UNHS follows a definition similar to that adopted the census.

If the toilet typology followed by the national census and the UNHS **can be harmonized** with that used in the UDHS/ JMP, **these three datasets can be combined and leveraged to consistently track improvements** in toilet access, at a frequency of every two to three years.

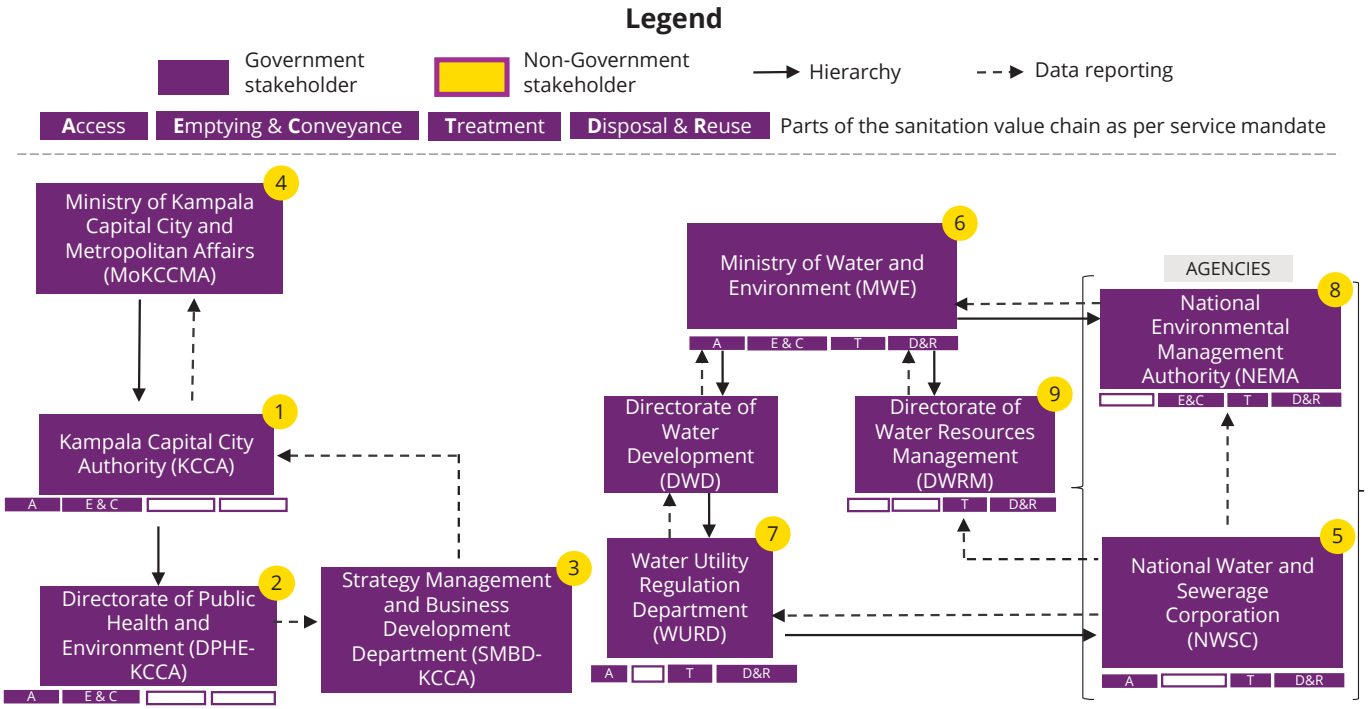
Motivation for Data Collection/ Collation

Understanding the underlying factors driving data collection provides critical context and insights that helps evaluate data reliability, identify stakeholders, and reveal why some data areas are prioritized or neglected. Decision makers can therefore make more informed choices about data-driven policies and programming. This section delves into Kampala's sanitation datasets and explores the motivations behind them.

Kampala's Sanitation Related Administrative and Reporting Structure

Figure 1 below summarizes the mandate and key activities of various stakeholders involved in sanitation (both government and non-government) together with the reporting structure. A high-level overview of the city's governance structure with respect to sanitation mandate and accountability is also available in the Kampala CWIS Snapshot (link).

Figure 1. Sanitation administrative and reporting structure in Kampala



1. KCCA is the Authority responsible for the provision, regulation and management of sanitation services in Kampala. KCCA reports on sanitation to the Ministry of Kampala Capital City and Metropolitan Affairs for accountability to the central government.
2. DPHE is the principal department at KCCA responsible for planning, designing, execution and monitoring, for sanitation (on access, emptying & conveyance) in the city. DPHE shares sanitation data with SMBD to facilitate high level planning.
3. SMBD is responsible for conducting research and championing strategy development and execution. The department guides the Authority on project development, overall strategy development and implementation to improve service delivery in the Authority.
4. MoKCCMA is the central government ministry that oversees the administration of the city and metropolitan areas.
5. NWSC is the national utility that operates and provides water and sewerage services in Kampala and other large urban centres across the country. NWSC shares data on treatment quality, sewer coverage and disposal and reuse with WURD
6. MWE is the central government ministry with the responsibility to develop, manage and regulate water and environmental resources in Uganda.
7. WURD is the department under MWE that is responsible for issuing service contracts to water utilities in Uganda and monitoring compliance with performance targets.
8. NEMA is the Authority under MWE that is responsible for regulatory functions on compliance and enforcement of standards for environmental management in Uganda. NEMA issues FS transportation licenses to private operators and discharge permits to utilities. It monitors compliance with treatment quality and safe conveyance.
9. DWRM is the MWE arm responsible for managing and developing water resources. DWRM therefore also monitors utility operations (NWSC) and particularly collects data on water quality, abstraction, wastewater treatment quality and disposal. DWRM is responsible for issuing abstraction permits.

In Kampala, two different authorities share the mandate for sanitation service provision. NWSC, the national utility, is responsible for providing Sewered Sanitation services, from sewer connection to treatment and reuse; KCCA, the local government in Kampala, oversees Non-Sewered Sanitation (NSS) from containment to emptying and disposal at the treatment plant. KCCA and NWSC each report to a different ministry and operate largely independently, which has led to data sharing and exchange challenges. Nonetheless, this is expected to improve with an ongoing national level reform which will require all public authorities to start reporting their work across sectors to the line ministries overseeing those sectors. When the new reporting structure is implemented, both NWSC and KCCA will report to the Ministry of Water and Environment (MWE) for their sanitation related activities, which will help better coordinate efforts across the two service authorities.

Reporting Requirements and Data Generation

To understand the influence of these various types of reporting requirements and needs, they have been classified into four categories: **1) institutionalized reporting,** which are inbuilt mechanisms of the overall government system and could include things such as the national census and routine regulatory reporting; **2) national/ state programmatic reporting,** which are initiatives of the national/ state government with a fixed timespan; **3) own activity,** which are collected entirely for the city's own operational purposes and needs and not reflected in other national/state/donor reporting processes; **4) IFI/ donor program reporting,** which are collected and reported for IFI/ donor driven programs.

It is worth noting that even though type 2) programs may also receive financial support from IFIs/ donors, the agenda is mostly driven by the national/ state governments. On the other hand, some of the datasets collected under IFI/donor supported programs may receive support from the service authority and be used by the service authority for other purposes once they become available, but only the data collection initiated by the service authority itself would count towards type 3).

Using this classification, Table 2 below shows the reporting requirement of each dataset presented in Table 1.

Table 2. Data generation as linked to data reporting requirements

Sanitation service chain	Dataset area	Data collected?	Data is representative of the entire city (for access) / covers all service providers (for emptying & conveyance)?	Periodically updated?
Access & containment	Access—Household Toilets (incl. Individual Household Latrines—IHHLs, and shared HH toilets)	Y[1]	Y	Every 10 years (last updated in 2014)
		Y[2]	Y	Every 5 years (last updated in 2016)
		Y[3]	Y	Every 3 years (last updated in 2019/20)
		Y[4]	Y	One off survey in 2017
	Access—Public and Community Toilets	Y[5] (PT)	N[6]	Daily
		Y[7] (CT)	Y	One off survey in 2016
	Access—Educational Institutions	Y[8]	N[9]	Annually
	Access—Healthcare Facilities	Y[10]	N	Annually
	Access / Containment – Sewer Connection	Y[12]	Y[13]	Daily
	Containment – Non- Sewered Sanitation (NSS)	Y[14]	Y	One off survey in 2017
Emptying & conveyance	Emptying (NSS)	Y[15]	N[16]	Daily[17]
		Y[18]	N[19]	Daily
	Disposal at Treatment Plants (NSS)/ Decanting stations	Y[20]	N[21]	Daily
		Y[22]		Daily
Treatment	Treatment Quality	Y[23]	N/A	Quarterly
		Y[24]	N/A	Quarterly
Reuse	Reuse—Treated Effluent	N[25]	N/A	N/A
	Reuse—Treated Biosolids	Y[26]	N/A	Irregularly

Institutionalized reporting
National/State programmatic reporting
Own activity
Donor/ IFI program reporting

Across the service chain, two datasets are collected at the treatment plant by the two service authorities for different types of reporting. As tipping fees from the truck operators disposing at the treatment plants is a revenue source for NWSC, it records information on the number of trucks that visit the treatment plants every day, the volume of fecal sludge disposed of by each truck (estimated using the capacity of the truck), and the payment details of the dumping fee. On the other hand, as part of its donor funded program activity, KCCA also has staff stationed at the treatment plants to record the number of trucks and truck volume, and the origin of the fecal sludge, to understand the extent to which the households living in low-income communities are served and changes in the uptake of formal desludging in the city.

While some data points are different across these two datasets, there is **significant overlap in the basic data points recorded** on the desludging vehicles, which allows **ample room for resource efficiency if the two data collection efforts can be consolidated.** Removing this duplication requires both the willingness of one authority to collect additional data points on top of its existing dataset

and institutional mechanisms that clearly establish data exchange protocols, the lack of which has been a significant hindrance.

On the other hand, sometimes regulation and standards require the duplication of monitoring datasets by different stakeholders by design. In Kampala, NWSC is obligated to periodically collect samples of treated wastewater, conduct testing, and report the results to environmental regulation authorities. Agencies under the MWE also independently collect water and wastewater samples and conduct testing to verify the results submitted by NWSC and further monitor the impact of any discharge on the environment. This mechanism holds the utility to higher standards and helps ensure compliance with environmental regulations.

Generally, sanitation datasets collected in Kampala are highly transparent. Except for specific data about NWSC's revenue generating activities, key data points from most of the datasets across the service chain are available in published reports, such as in the MWE's annual sector report and reports from donor funded programs. Terms in NWSC's performance contract require data reporting for key performance indicators to MWE, who then publishes selected data points in the sector report.

The only service chain segment where no data currently exists is reuse for treated effluent. NWSC captures data on the reuse of treated biosolids, as the sales of these is a revenue source (albeit very small) for NWSC and recorded for accounting purposes. However, treated effluent is currently being discharged without any reuse, and data on neither type of reuse is required for reporting. **If MWE included indicators on the reuse** of treated effluent as well as biosolids **into NWSC's performance contract,** this would **provide an incentive** for NWSC to further explore the reuse potential of its treatment byproducts and **to systematically generate such data.**

Influence of Funding Sources on Data Sustainability

Sustaining sanitation datasets requires regular and frequent updating of sources, potentially causing significant strain to already stretched resources for city governments and utilities. Understanding the viability of sanitation data ecosystems requires consideration of funding sustainability and the impact that inevitable political, administrative, and fiscal changes might have on ongoing data collection and maintenance efforts. The following section seeks to overview the resourcing landscape for sanitation in Kampala, and consider its impact on data sustainability and future viability.

Kampala's Funding Sources for Sanitation

NWSC has multiple sources of finance: own revenue (sewage connection charges, water billing, dumping fees, fines and penalties, etc.), central government transfers, grants from donors for specific projects, and borrowings (loans) from IFIs. In comparison, KCCA has relatively limited funding sources and relies heavily on donors for most of its sanitation activities. KCCA does not have its own revenue sources and instead collects taxes on behalf of the central government, which is submitted to the central government and then partially remitted as Non-Tax Revenue (NTR). This forms KCCA's institutional budget. In this budget, a small percentage is allocated to the Directorate of Public Health and Environment, under which sanitation activities are carried out together with other competing priorities. Tables 3 and 4 provide a quick glimpse, by service authority, of the characteristics of their funding sources for sanitation.

Table 3. Sources of sanitation finance in Kampala for KCCA

	GoU (National/ State transfer)	**NWSC** (Utility) (Own revenue, Loans and grants)	**BMGF** (Donor) (through KCCA CWIS)	**GSMA** (Grant through KCCA)	**GIZ** (Donor partner support)
CAPEX or OPEX	Both	Both	Both	Both	Both
Grants or Loans	-	Both	Grant	Grant	Partner support
Infrastructure or soft-interventions	Both	Both	Both	Both	Both
Recurring or program-linked	Recurring	Recurring	Program-linked	Program-linked	Program-linked
Sewered Sanitation (SS) or NSS	NSS	Both	NSS	NSS	NSS
Part of the sanitation value chain addressed	Access, Emptying, Conveyance & Treatment	Access (Sewer), Conveyance, Treatment & Reuse	Access & Conveyance	Conveyance	Access & Conveyance

Table 4. Sources of sanitation finance in Kampala for NWSC

	GoU (National/ State transfer)	**NWSC** (Utility) (Own revenue)	**KfW + EU-ITF** (Loan + Grant) (through LV-WATSAN Project)	**EIB + AFD** (Loan) (through LV-WATSAN project)	**KfW + EU** (Loan + Grant) (Kampala Sanitation Project)	**AFD** (Loan) Kampala Sanitation project)
CAPEX or OPEX	Both	Both	CAPEX	CAPEX	CAPEX	CAPEX
Grants or Loans	Grant	-	Both	Loan	Both	Loan
Infrastructure or soft-interventions	Both	Both	Both	Both	Both	Both
Recurring or program-linked	Recurring	Recurring	Program-linked	Program-linked	Program-linked	Program-Linked
Sewered Sanitation (SS) or NSS	Both	Both	Both	Both	Sewered	Sewered
Part of the sanitation value chain addressed	Access, Conveyance, Treatment & Reuse	Access, Conveyance, Treatment & Reuse	Access, Conveyance & Treatment	Access, Conveyance & treatment	Access & Conveyance	Access & Conveyance

Influence of Funding Sources on Sanitation Data

The sanitation funding sources presented above can be broadly classified into four categories: **1) national/ state transfers,** all of which are classified as grants; 2**) city's own revenue; 3) IFI/ donor funding,** which can be grants or loans but are external sources and always linked to specific programs; **4) private sector or self-sustainable Community Based Organization (CBO) activities,** which operate on a business model. Data collection in a city may be funded through several of these sources but not necessarily all of them. To understand how these funding sources affect sanitation data in Kampala in different ways, and their implications for the continued update of datasets, Table 4 below further overlays Table 2 with funding sources.

Table 4: Overview of datasets as linked to funding sources

Sanitation service chain	**Dataset area**	**Data collected?**	**Data is representative of the entire city (for access) / covers all service providers (for emptying & conveyance)?**	**Periodically updated?**
Access & containment	Access—Household Toilets (incl. Individual Household Latrines—IHHLs, and shared HH toilets)	Y[1]	Y	Every 10 years (last updated in 2014)
		Y[2]	Y	Every 5 years (last updated in 2016)
		Y[3]	Y	Every 3 years (last updated in 2019/20)
		Y[4]	Y	One off survey in 2017
	Access—Public and Community Toilets	Y[5] (PT)	N[6]	Daily
		Y[7] (CT)	Y	One off survey in 2016
	Access—Educational Institutions	Y[8]	N[9]	Annually
	Access—Healthcare Facilities	Y[10]	N[11]	Annually
	Access / Containment – Sewer Connection	Y[12]	Y[13]	Daily
	Containment – Non- Sewered Sanitation (NSS)	Y[14]	Y	One off survey in 2017
Emptying & conveyance	Emptying (NSS)	Y[15]	N[16]	Daily[17]
		Y[18]	N[19]	Daily
	Disposal at Treatment Plants (NSS)/ Decanting stations	Y[20]	N[21]	Daily
		Y[22]		Daily
Treatment	Treatment Quality	Y[23]	N/A	Quarterly
		Y[24]	N/A	Quarterly
Reuse	Reuse—Treated Effluent	N[25]	N/A	N/A
	Reuse—Treated Biosolids	Y[26]	N/A	Irregularly

Institutionalized reporting
National/State programmatic reporting
Own activity
Donor/ IFI program reporting

National/State transfer
Own revenue
IFI/donor funding; Corporate Social Responsibility (CSR)
Private sector; self-sustainable CBO activities

Except for the datasets collected by KCCA, all others are funded by national transfers or authority's own revenue. The KCCA owned datasets were all initially collected using donor funding, which implies a challenge for the continuity of data updates when this funding ends.

Nevertheless, **KCCA has been able to (or plans to) continue collecting two of the datasets with its own state remitted institutional budget,** where it sees value and the cost can be accommodated in its limited budget. Initially collected in 2018 with donor funding, the dataset on KCCA owned public toilets has been incorporated into KCCA's routine activities and data collection, which form the execution of KCCA's public mandate. On the other hand, the Call Center is more resource intensive and still partially supported by the ongoing donor funded program, but KCCA has gradually transformed it from a hotline related only to Fecal Sludge Management (FSM) to a public interface for the entire institution, through which the public can request a wide range of information on KCCA and its services. KCCA Intends to continue it after the donor funded program period ends and is currently exploring business models that would allow private operators to take over the Call Center's FSM service functions. Meanwhile, the ongoing national level reform will start channeling all sector funding through the line ministries, which could help divert more resources to KCCA for its sanitation activities.

Considering both reporting requirements and funding sources for datasets across the sanitation service chain, **all datasets collected by NWSC and UBOS will likely continue to be updated in the long term.** As most of the datasets collected by KCCA are funded by donors, the only ones that will likely be continually updated are the public toilets and Call center datasets that have been taken up by KCCA and budgeted for as part of its routine activities. **Onsite containment and access to community toilets are the biggest gap areas** where no mechanism exists to generate additional data beyond the one-off studies conducted five years ago.

Data on Sanitation Finance

The generation and continued update of data across the sanitation service chain assists the service authority and accountability authorities to track progress, and plan programs and interventions for service improvement. Sanitation finance data are particularly important at the city level to shed light on the cost-effectiveness and financial sustainability of current sanitation service provision. However, sanitation finance data is often patchy or unavailable. Table 5 below summarizes the data available in Kampala in key financial data areas. This includes data captured by NWSC (for SS) as well as by KCCA (for NSS).

Table 5. Financial data availability for Kampala

Financial Data	Dataset Area	Data Availability (Yes, No, Not Applicable)
Revenue	Total annual sewerage/ sanitation fees (collected on water bills) for the city	Y
	Disaggregation of sewerage/ sanitation fees (on water bills) for sewered vs. non-sewered households, if the city has sewers	N/A[27]
	Sanitation surcharge (on water bills) for sanitation improvement interventions	N/A
	Sanitation tax as part of property tax/ water bills/ independently for service provision	N/A
	Total annual revenue generated from PT & CTs owned and operated by the service authority, if user fees are charged	N/A
	Total desludging revenue to service authority from HHs and/or institutions (for services directly provided by vehicles owned and operated by the service authority)	Y[28]
	Total annual tipping fees from desludging operators	Y
	Fees from private players contracted to operate PT & CTs / treatment plants, including license fees	Y
	Fines and penalties (for illegal sewer connections and drains, FS leakage/ spillage, etc.)	Y
	Sales of treated effluent and biosolids	Y (biosolids)
Expenditure	CAPEX for each treatment plant	Y
	Annual O&M cost for each treatment plant	Y
	CAPEX for the sewer network	Y
	Annual O&M cost for the sewer network	Y
	CAPEX for PT/CTs owned by the service authority	Y
	Annual O&M cost for PT/CTs owned by the service authority	Y
	CAPEX for desludging vehicles owned by the service authority	Y
	Annual O&M cost for desludging vehicles owned by the service authority	Y
	CAPEX for transfer/ decanting stations (incl. mobile transfer stations)	Y
	Annual O&M cost for transfer/ decanting stations (incl. mobile transfer stations)	N/A[29]
	CAPEX for any other assets owned by the service authority	N/A
	Annual O&M cost for any other assets owned by the service authority	N/A
Direct Subsidies	Direct HH subsidies provided by the service authority for toilet & containment	Y
	Direct HH subsidies provided by the service authority for emptying	Y

Other than in a small number of non-applicable areas, Kampala has a high level of financial data availability, owing to the national level data infrastructure. For example, KCCA's institutional budget is discussed in parliament sessions open to public attendance, and all budget documents including detailed expenditures are required to be recorded and made publicly available. Similarly, NWSC's performance contract with the MWE obligates the utility to record its revenue and expenditure in details, which had contributed to the availability of O&M cost data by asset category.

Notes

[1] Data collected during the National Population and Housing Census. The census captures the distribution of HHs in the city, by type of toilet facilities and HH with no toilet facility. The census is directly carried out through the Uganda Bureau of Statistics (UBOS) across the country.
[2] Data collected during the Uganda Demographic and Health Survey (UDHS).
[3] Data collected during the Uganda National Household Survey (UNHS).
[4] Data collected during the Kampala Citywide Toilet Mapping Survey, 2016-2017. The survey was a census of all sanitation facilities in the city and fully funded by the Bill & Melinda Gates Foundation (BMGF)
[5] Data initially collected in a survey conducted by KCCA, in 2018, on public toilets in informal settlements and in the city center. The survey was funded by BMGF under the Citywide Inclusive Sanitation (CWIS) project. After the initial survey, KCCA has institutionalized the monitoring and is now collecting daily updates using KCCA's state approved budget.
[6] This only covers the 15 Public Toilets owned by KCCA. These are currently managed by private cleaning companies under service contracts and monitored by KCCA.
[7] KCCA conducted an inventory of community toilets in all divisions of Kampala in 2016, funded by GIZ.
[8] Data captured and monitored by KCCA Public Health and Education and Social Services departments for all public primary and secondary schools in the city (self-reported data, with spot checks). Reporting on this is institutionalized and funded by state approved budget.
[9] The data available does not include private educational institutions.
[10] Data is routinely captured and monitored for public healthcare facilities in the city by KCCA's Public Health Department team. Reporting on this is institutionalized and funded by KCCA's state approved budget.
[11] The data available does not include private health facilities.
[12] Sewer connections are directly linked to existing/new water accounts which are stored in NWSC's central billing system database. The data is required as part of NWSC's performance contract with the Ministry of Water and Environment (MWE).
[13] All legal connections are registered in the NWSC database. However, it is worth noting that there are illegal connections to the sewer that are not known / captured by the utility.
[14] Data collected during the Kampala Citywide Toilet Mapping Survey. The survey was a census of all sanitation facilities in the city and provides baseline data. This was fully funded by BMGF.
[15] Data captured through the FSM Call Centre, which was established in 2016 with support from BMGF and GIZ.
[16] Not all desludging services come through the Call Centre as some customers may choose to contact service providers directly.
[17] The Call Centre has since evolved into KCCA's public hotline with additional functions that allow citizens to access other KCCA level information. Running of the call center is currently co-financed by the BMGF CWIS project and KCCA's state approved budget.
[18] Data captured by KCCA through a GIS tracking Application tool used by the desludging operators. The GIS tracking Application was developed in 2018 with funding from GIZ, BMGF and GSMA. Currently, the running of the GIS tracking App system is co-financed by BMGF and KCCA.
[19] Illegal manual emptiers are not registered in the system, and registered vacuum truck and gulper operators do not always use/activate the GIS Tracking App during operations.
[20] Data is captured by the KCCA data clerks stationed at the treatment plants, under the BMGF funded CWIS project.
[21] The data only captures the trucks that dispose at the treatment plants. Illegal emptying and dumping operations are not tracked.
[22] Data on disposal at treatment plant is also captured by NWSC staff for NWSC's revenue accounting purposes. NWSC staff capture data using a) counter books to record the number of trucks per day, volumes collected, and number of trips; and b) digitized system for proof of payment.
[23] Data on treatment quality is periodically captured by NWSC to monitor treatment quality before discharge.
[24] NEMA and DWRM also monitor treatment quality (for issuing/ revoking discharge permits) as part of their environmental protection mandate. The monitoring is funded by their own revenues.
[25] No reuse is happening for treated effluent.
[26] Treated biosolids are sold at low prices to farmers and briquette companies. NWSC does not consistently record the data as this is not a major revenue source.
[27] In Kampala, sewerage tariff is only included in the water bills of customers who are connected to sewers.
[28] The KCCA trucks only serve public institutions at subsidized costs. Private institutions and households are served by the private operators.
[29] The mobile transfer stations are used and maintained directly by the gulpers. KCCA monitors the usage but does not contribute to the O&M cost.