THE REPUBLIC OF UGANDA

POLICY PROPOSALS AND STRATEGIES FOR URBAN FAECAL SLUDGE MANAGEMENT IN UGANDA

MINISTRY OF WATER AND ENVIRONMENT
KAMPALA, UGANDA

February 2025

ABREVIATIONS AND ACRONYMS

AfDB	-	African Development Bank
AMCOW	-	African Ministers 'Council on Water
ASPG	-	African Sanitation Policy Guidelines
CSOs	-	Civil Society Organisations
CWIS	-	City-Wide Inclusive Sanitation
FS	-	Faecal Sludge
FSM	-	Faecal Sludge Management
FSTPs	-	Faecal Sludge Treatment Plants
FY	-	Financial Year
GDP	-	Gross-Domestic Product
GIZ	-	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GoU	-	Government of Uganda
HH	-	Household
JMP	-	Joint Monitoring Programme
KCCA	-	Kampala Capital Council Authority
KII	-	Key Informant Interview
MBS	-	Market-Based Sanitation
MC	-	Municipal Council
MGLSD	-	Ministry of Gender, Labour and Social Development
MHM	-	Menstrual Hygiene Management
MLHUD	-	Ministry of Housing and Urban Development
MoES	-	Ministry of Education and Sports
MoH	-	Ministry of Health
MoLG	-	Ministry of Local Government
MOU	-	Memorandum of Understanding
MWE	-	Ministry of Water and Environment
NDP	-	National Development Plan
NEMA	-	National Environment Management Authority
NPA	-	National Planning Authority
NWSC	-	National Water and Sewerage Corporation
O&M	-	Operation and Maintenance
OD	-	Open Defecation
OSS	-	On-Site Sanitation
PPP	-	Public-Private Partnership
RIA	-	Regulatory Impact Assessment
S4M	-	Sanitation for Millions
SDGs	-	Sustainable Development Goals
TC	-	Town Council
TSP	-	Town Sanitation Planning
UBSUP	-	Upscaling Basic Sanitation for the Urban Poor
UGX	-	Uganda Shilling
UNEP	-	United Nations Environmental Programme
URSB	-	Uganda Registration Service Bureau
UWASNET	-	Uganda Water and Sanitation Network
UWS	-	Umbrella of Water and Sanitation
VIP	-	Ventilated Improved Latrine
WSDF	-	Water and Sanitation Development Facility

TABLE OF CONTENTS

SUMMARY

The Global Programme Sanitation for Millions (S4M) funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) supported the Ministry of Water and Environment (MWE) to undertake a policy framework analysis for urban sanitation in Uganda with focus on faecal sludge management (FSM). The purpose of the policy framework analysis was to generate recommendations for inclusion into the new National Sanitation and Hygiene Policy.

A participatory consultative approach was adopted in undertaking this analysis entailing an extensive desk review, and in-depth consultations and engagements with stakeholders at regional and national levels conducted by independent consultants.

Uganda has a population of 45.9 million with annual population growth rate of 2.9%. The population in urban areas is estimated at 17 million. The rate at which Uganda is urbanizing is estimated at 5.2%. This rapid urbanization is unplanned, which has resulted into mushrooming of slums and informal settlements, urban sprawl, environmental degradation, deterioration of infrastructure and service delivery including sanitation.

According to the Uganda National Population and Housing Census, 2024, household (HH) access to some form of sanitation in urban areas including unimproved is estimated at 97% and open defecation (OD) at 3%. Basic sanitation stands at 35%, limited sanitation at 25.9% and unimproved sanitation 36.2%. Almost a half (49.4%) of urban HHs use covered pit latrines, a quarter (25.0%) VIP latrines and only 11.6% use flush toilets. Less than a tenth (7.2%) of the urban population use sewer system. Thus, there is a dominance of unlined pit latrines across all the urban centres of Uganda.

All urban centres in Uganda are challenged with FSM issues. Key among these include: the poor condition of toilets with majority being unlined, inadequate faecal sludge disposal, collection, transport and treatment capacity, low sewerage coverage, weak sector coordination, inadequate compliance monitoring mechanisms and a largely scattered and partly unregulated informal private sector (PS) providing services at a premium price.

The policy issues, recommendations and strategies that have been proposed for consideration into the National Sanitation and Hygiene Policy are in accordance with the overarching national planning frameworks e.g., the Third and Fourth National Development Plans—2020/21-2024/5 and 2025/26-2029/30 respectively, The Constitution of the Republic of Uganda, 1995 and a myriad of existing national policies, laws and regulations. The recommendations are further aligned to key pillars of sanitation governance, which are based on global best practices and the African Sanitation Policy Guidelines (ASPG) including (i) sanitation systems and technologies (i.e., sewered and non-sewered), (ii) governance and institutional arrangements, (iii) urban sanitation financing and investments, (iv) human capacity for urban sanitation,(v) regulating urban sanitation, (vi) private sector participation, (vii) menstrual hygiene management, and (viii) urban sanitation and climate change.

1.0 BACKGROUND

1.1 Introduction

The Global Programme Sanitation for Millions (S4M), which is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) supported the Ministry of Water and Environment (MWE) to undertake a policy framework analysis for urban faecal sludge management (FSM) in Uganda. The ultimate aim of the framework was to strengthen the urban component of the Sanitation and Hygiene Policy by identifying policy issues, gaps and generate policy proposals with regard to urban FSM in Uganda. The process of developing the Uganda National Sanitation and Hygiene Policy, which is ongoing is spearheaded by the Ministry of Health (MoH).

1.2 Context

In Uganda, progress towards achieving universal access to safely managed sanitation is low estimated at 40% in urban areas and 8% in rural areas, which is partly attributed to the current policy framework that does not adequately address the management of the increasing unsafe disposal of faecal sludge. This is especially so in urban areas, rural growth centres and refugee settlements (Sanitation Policy, 1997, National Environmental Health Policy 2005, National Water Policy, 1999). To address the inadequacy in the current policy framework, the GoU is in the process of developing a comprehensive Sanitation and Hygiene Policy to give policy direction towards improved sanitation.

The development of the National Sanitation and Hygiene Policy draws legitimacy from the “Regulatory Impact Assessment (RIA) on Sanitation and Hygiene in Uganda”, which was completed in November 2023. The RIA on sanitation and hygiene in Uganda generated evidence for policy development *(revision)* with regard to sanitation and hygiene in general including urban sanitation. Sanitation in the RIA is defined as the safe capture, containment, collection, transportation, treatment and disposal of solid and liquid waste through appropriate means by individuals, household (HH), communities and institutions to prevent disease and improve the quality of life and environment.

Besides the RIA, The African Policy Sanitation Guidelines (ASPG) of the African Ministers ’Council on Water [(AMCOW) (2021)] echoes the need for an adequate sanitation policy in member countries that harmonizes sector actions and mobilizes resources and investments in order to achieve safely managed sanitation for entire populations The ASPG makes it clear that if African countries have to make progress towards universal access to safely managed sanitation, governments need to accelerate efforts to formulate adequate policies and implementations strategies, and to provide the necessary resources for their execution.

Apart from RIA and the ASPG that provide legitimacy for developing an urban sanitation policy, Uganda has adopted and is a signatory to various regional and global commitments regarding sanitation. Uganda is committed to various global goals including Sustainable Development Agenda, which consists of 17 Sustainable Development Goals (SDGs). SDG six (6) comprises eight (8) targets and associated indicators, with 6.2 specifically dedicated to sanitation; and 6.3, 6.a and 6.6 bearing direct sanitation links.

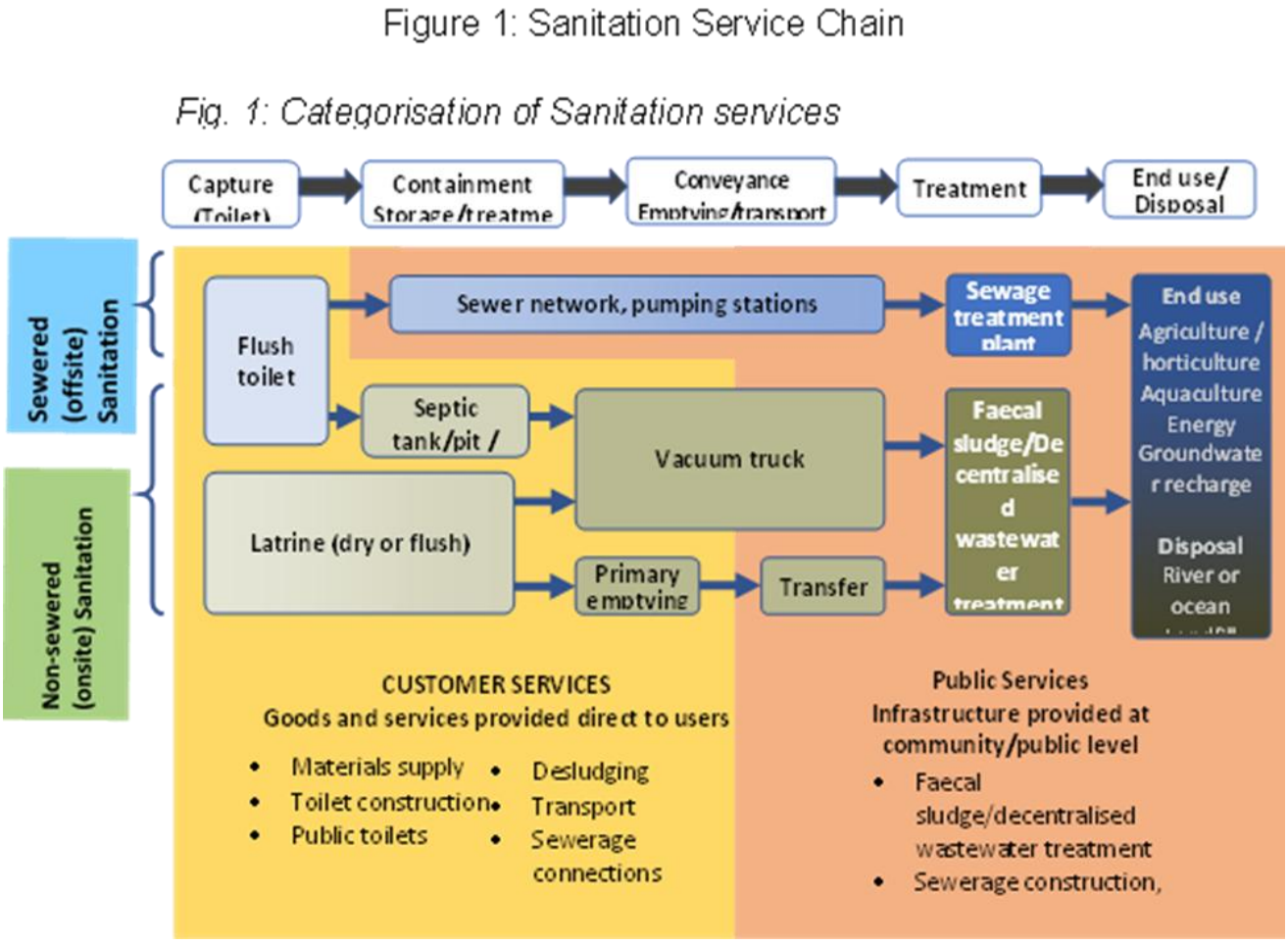
Despite all this commitment by African governments, The WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene notes that there has been slow progress made towards fulfilling regional and global commitments and targets regarding sanitation. The JMP urges African governments to take unwavering action and prioritise sanitation.

It is against the above background that the policy issues, gaps, recommendations and strategies have been delineated and proposed for consideration into the National Sanitation and Hygiene Policy for Uganda.

1.3 Scope of the Proposals and Strategies

The scope of the policy proposals and strategies adduced in the framework analysis are guided by the conceptualisation of sanitation as provided in the African Sanitation Policy Guidelines (ASPG) of African Ministers 'Council on Water—AMCOW (2021) that refers to sanitation as "access to and use of facilities and services for the safe management of human waste across the sanitation service chain. See Figure 1.

Figure 1: Sanitation service chain



2.0 APPROACH AND METHODOLOGY

2.1 Introduction

The approach and methodology that were adopted in generating the policy proposals for urban FSM in Uganda were participatory and highly consultative. Different methods of data gathering were applied and different sources were consulted. All the data were triangulated to generate consensus on the policy issues, gaps and recommendations.

2.2 Approach

A participatory consultative approach was adopted and entailed extensive preparatory meetings with GIZ and MWE, and later with MOH. An extensive desk review was undertaken after the preparatory meetings/inception phase. The outcome of the desk review informed the development of the tools that were applied during consultations and engagements with stakeholders at regional and national levels. Engagements with stakeholders were implemented through conducting key informant interviews (KIIs), consultative meetings and focus group discussions (FGDs).

2.3 Stakeholders

Stakeholders were selected based on their role in the sanitation service chain. At the regional level, stakeholders included city and town council officials; civil and political—including Chief Administrative Officers, Mayors, District and City Engineers, Environmental Officers, Health Inspectors and Local Council officials etc. Other stakeholders included staff of WSDFs, Umbrella for Water and Sanitation, landlords, representative of Cesspool emptiers/private sector and residents/households. At the national level, consultations were made with MWE, MoH, GIZ, Parliamentary Forum on Sanitation, NGOs/CSOs, KCCA, Development Partners—GIZ, African Development Bank (AfDB), the World Bank.

3.0 SITUATIONAL ANALYSIS

3.1 Context for Urban Sanitation in Uganda

Uganda has a population of 45.9 million with annual population growth rate of 2.9%[1]. The population in urban areas is estimated at 17 million[2]. The rate at which Uganda is urbanizing is estimated at 5.2%, which is high by international standards[3]. It is projected that half of Uganda's population will be urbanized by 2050[4]. This rapid urbanization is unplanned, which has resulted into mushrooming of slums and informal settlements, urban sprawl, environmental degradation, deterioration of infrastructure and service delivery including sanitation[5]. Almost a half (48.3%) of the urban population lives in slums or unplanned informal settlements[6].

According to the Uganda National Urban Policy (2017), urban centre refers to a town board, town council, municipality, city or metropolitan area[7].Currently, Uganda has one (1) capital city, 10 cities, 42 municipalities and 357 town councils[8]. The "day-time" population in the 11 cities is estimated at 5,547,645 people and 4,276,228 people were found in those 11 cities on the census night of 2024[9].

The urban sanitation policy in Uganda dates back to colonial era when Kampala was created as a township by the 1903 Ordinance (UN-Habitat, 2007). The colonial policy created a sanitation divide whereby European residential areas such as Nakasero, Kololo and Kiswa were planned for sewer sanitation system and areas where African lived were left for onsite sanitation (pit latrines). This sanitation divide persists to present date– the sewer network has not gone beyond the former residential areas (senior quarters) formerly occupied by the Whites. The colonial policy did not promote equitable physical planning leading to unplanned settlements in all urban areas in Uganda, which renders connection to the sewer network difficult (UN-Habitat, 2005, 2007).

The colonial administration extended the sanitation model implemented in Kampala to other townships where they had administrative seats such as Jinja, Mbale, Gulu, Arua, Mbarara, Fort Portal, Hoima, Masaka, Soroti, Lira and Entebbe. These townships were zoned into senior, Indian and African quarters. Senior quarters (where the colonial administrators reside) had sewer sanitation network that was extended to Indian quarters and/or central business and administrative areas. In African quarters, pit latrine sanitation was promoted. These towns have since evolved into cities, but the sanitation architecture

---

[1] Uganda Bureau of Statistics 2024: The National Population and Housing Census 2024 – Preliminary Report, Kampala, Uganda
[2] Uganda Bureau of Statistics (UBOS) 2023. Statistical Abstract 2023.
[3] Ministry of Lands and Urban Development 2017. National Urban Policy.
[4] Uganda Bureau of Statistics 2014: The National Population and Housing Census 2014.
[5] Ministry of Lands and Urban Development 2017. National Urban Policy
[6] Ministry of Lands, Housing and Urban Development. Uganda State of Urban Sector Report 2021 – 2022
[7] Ministry of Lands, Housing and Urban Development, 2021. The Uganda National Urban Policy 2027.
[8] Ministry of Lands, Housing and Urban Development.2023. State of Land Use Compliance Report for Urban Local Governments in Uganda.
[9]Uganda Bureau of Statistics 2024: The National Population and Housing Census 2024 – Preliminary Report, Kampala, Uganda
[9] Uganda Bureau of Statistics (UBOS) 2023. Statistical Abstract 2023.

has not significantly changed. The sewer network has not significantly extended beyond the senior quarters and central business districts, and onsite sanitation (pit latrines and septic tanks) is dominant in the rest of the urban areas (UN-Habitat, 2005, 2007).

3.2 Status of Urban Sanitation in Uganda

According to the Uganda National Population and Housing Census, 2024, HH access to some form of sanitation in urban areas including unimproved stood at 97% open defecation (OD) was 3%[10]. Using the WHO/UNICEF Joint Monitoring Programme indicators, basic sanitation stood at 35%, limited sanitation at 25.9% and unimproved sanitation was estimated 36.2%. This suggests that the Sustainable Development Goal 6.2 target of universal access to safe sanitation will not be easily achieved by 2030. At institutional level in urban areas especially for health centres and schools, the sanitation situation is much improved compared to HHs. For instances, almost a tenth of all urban health centres (9.6%) had access to advanced sanitation, 5.5% basic sanitation, 78.6% limited sanitation and 6.3% no services[11].

3.3 Urban sanitation service chain

Capture/containment: Recent sanitation data in the National Population and Housing Census, 2024 revealed that only 3.0% of urban HHs in Uganda did not have any facility and hence practicing OD. Almost a half (49.4%) of HHs had covered pit latrines, a quarter (25.0%) had VIP latrines and only 11.6% had flush toilets. According to MWE Annual Program Report (APR (2023), 7.2% use sewer system. The total number of sewer connections as of June 2023 stood at 28,703 and the network was 762 Km (MWE APR 2023).

Sanitation coverage in learning institutions particularly in public primary and secondary schools remains inadequate. There are about 12,408 primary and 1,169 public schools in Uganda. Schools with standard pupil latrine stance ratio of 40:1 were 2,652 primary schools or 21%, and 467 secondary schools or 40%. These schools had a combined total of 25,094 VIP latrines with 125,470 stances. Menstrual hygiene management (MHM) remains a big challenge in a majority of the schools as only 5,236 primary schools or 42% and 580 secondary schools or 50% had MHM system[12]. With regard to urban healthcare facilities (HCFs), majority have limited sanitation service[13].

The dominance of unlined pit latrines across all the urban centres of Uganda was reported by participants in regional consultative meetings to be due to the high cost of construction of lined pit latrines amidst high levels of urban poverty and low willingness among people to invest in sanitation. Results of these regional consultations

[10] *Ministry of Finance, Planning and Economic Development (2024). National Population and Housing Census.*
[11] *Ibid.*
[12] ***National micro planning Handbook for WASH in public primary and secondary schools in Uganda***

[13] ***National micro planning Handbook for WASH in HCFs in Uganda 2022***

corroborated the findings on the Apac and Anaka FSM Clusters regarding the high cost as deterrence to HHs with regard to constructing safely contained toilets. The cost of constructing a VIP latrine ranged between UGX1,650,000 and 1,895,000/=, which was deemed expensive by majority of HHs[14]. In another study[15], the cost of a VIP latrine with an unlined substructure was indicated to range between UGX 2 and 3 million, which is unaffordable to the urban poor in slum areas.

Despite the challenges posed by the predominance of unlined pit latrines in the urban areas of Uganda, The National Physical Planning Standards and Guidelines (2011) are unequivocal on the type of sanitation facilities to be constructed in urban areas.

> *All permanent developments must have water–borne toilet facilities drained to either a septic tank and soak pit within the plot, or connected to a sewage lagoon or connected to a central sewer line system... septic tanks must be positioned so that they are accessible for emptying by a cesspool emptier*"[16].

Whereas the Guidelines are clear, they require a supportive environment to be complied with such as clearly worked out incentives for latrine construction especially for the urban poor and landlords, availability of faecal sludge emptying services, sensitization of urban dwellers with regard to non-disposal of solid waste including used sanitary pads in lined latrines.

Emptying and transportation/conveyance: Emptying and transportation of faecal sludge is predominantly rudimentary across the urban areas in Uganda, with limited mechanization, which leads to unsafe disposal and pollution of the environment. The dominant method of emptying latrines is manual emptying, which is unsafe and poses a high risk to environmental degradation (USAID, 2023, MWE, 2022). The faecal sludge is buried in shallow pits and drained away by storm water into ground and surface water sources. Studies show that disposing $5m^3$ of untreated faecal sludge is equivalent to 5000 persons practicing OD (USAID, 2023). The rudimentary method of emptying, which is predominantly manual is attributed to its being readily available and cheap (GIZ, 2021).

The private sector dominates the emptying and transportation of faecal sludge. There are about 500 cesspool emptier trucks operated by the private sector. However, the private sector actors are largely informal and unregulated and operate within the Kampala area. To attract private sector emptiers to towns outside the Kampala Metropolitan, MWE with support from GIZ piloted a Cesspool leasing scheme in the small towns under the Apac Cluster in Northern Uganda. This model (*leasing*) was found viable when serving three (3) or more clusters, but lacks a framework to guide the leasing arrangements if scaleup is to be done nationally[17]. The cost of emptying services is high ranging from UGX

---

[14] GIZ 2022: Exploratory Study on Promotional Incentive for Toilet Substructure to Improve Safely Managed Urban Sanitation in Uganda

[15] UNICEF 2024: Assessment of the Sanitation Service Provision Capacity and Gaps in Refugee Hosting Districts of Isingiro, Madi-Okollo and Terego

[16] MoLHUD 2011: National Physical Planning Standards and Guidelines 2011, Ministry of Lands, Housing and Urban Development.

[17] GIZ 2022: Proposed Leasing Model for Operation of Cesspool trucks in Northern Uganda.

100,000/= [(approximately USD 26.00 to UGX 500,000 (approximately USD 130.00) (USAID, 2023 and MWE, 2022)].

Treatment, reuse and disposal: NWSC operates centralized sewage treatment systems in 17 out of 262 towns in the country where it has operations (i.e., Kampala, Jinja, Entebbe, Masaka, Iganga, Tororo, Mbale, Lira, Soroti, Gulu, Arua, Mbarara, Fort Portal, Hoima, Masindi, Kabale, and Kisoro). There are about 18 FSTPs operated by Umbrella for Water and Sanitation Authority, NWSC and URCS.

All urban centres in Uganda are still challenged with FSM issues generated by HHs. Key among these include: the poor condition of toilets, inadequate faecal sludge disposal, collection, transport and treatment capacity, low sewerage coverage, weak sector coordination, inadequate compliance monitoring mechanisms and a largely scattered and partly unregulated informal private sector providing services at a premium price.

4.0 POLICY ISSUES, RECOMMENDATIONS AND STRATEGIES

4.1 Introduction

The policy issues, gaps and proposals generated in this Framework are presented along the key pillars of sanitation governance, which are based on global best practices and the ASPG.

4.2 Sanitation Systems and Technologies

4.2.1 Access to sewered sanitation systems

Sewered sanitation systems are considered the gold standard of safely managed sanitation due to the low risk of human contact with faecal matter. However, the sewered sanitation systems have a myriad of challenges: (i) the coverage is very low and has stagnated at 5%; (ii) inadequate investment in sewered sanitation; (iii) aged and dilapidated sewerage networks characterized by leakages and frequent bursts; (iv) lack of awareness of the benefits of sewered sanitation; and (v) high cost of service.

Policy issues

The colonial administration policy was to extend sewerage network to middle and high-income groups, with a piped water supply of 190 litres per capita per day (l/ca.d) and paying property rates. This policy was not adopted by post-colonial government. As a result, high income areas such as Muyenga, Lubowa, Mutungo, Bugolobi, Naguru, Ntinda and Nalya are not fully connected to sewerage network.

The Water Policy (1999) states that in rural towns and peri-urban areas, piped sewerage systems should only be considered if: (i) the nature of the community is such that onsite sanitation would not be viable or would be environmentally damaging; and (ii) the piped sewerage system is an inherent result for the water supply. In this case, treatment by waste stabilization ponds should be the preferred method. It also states that preference should be given to onsite sanitation systems [(improved HH latrines including concrete slabs, sanplats and ventilated improved latrines (VIP) latrines)].

The National Environmental Health Policy (2005) is silent about sewered sanitation. The Water Act (1997) established a sewerage area. It states that after the declaration of a sewerage area, no building shall be erected or re-erected unless it is connected to the sewerage authority's works, and all sewerage work on the land shall be constructed with the approval of the authority in conformity with the code of workmanship that may be prescribed.

The National Water and Sewerage Act Cap 318 gives NWSC the mandate to provide sewerage services, in any area in which it may be appointed to do so. The objective of this Act is to develop the water and sewerage systems in urban centres and big national institutions throughout the country.

The current sanitation policies do not sufficiently address the current needs for sewered sanitation. There is no policy direction on the growth and expansion of sewered sanitation systems in urban areas, let alone the rehabilitation of the aging infrastructure. The colonial policy of extending sewered sanitation to middle- and high-income groups was not fully implemented after independence.

The recent developments with regard to SDGs, which emphasize safely managed sanitation service, technological changes towards waste recycling and reuse, climate change characterized by extreme weather events like flooding, emerging middle class housing estate and high population densities in cities necessitate a new policy direction for sewered sanitation in urban areas in Uganda.

There is low connection and increasing cases of disconnection from sewer network due to high tariff. There are onsite sanitation systems in areas with sewer network due to weak enforcement of the attendant laws.

Policy Statement (Recommendation)1: Government shall increase access to sewered sanitation in urban areas to promote safely managed sanitation in middle- and high-income areas. Priority will be given to low cost sewered sanitation systems in planned middle- and high-income housing estates. Real estate developers shall be facilitated to develop and operate mini-sewer systems.

Strategies

Government shall implement the following strategies to increase access to sewered sanitation in urban areas:

i) Invest in the development, expansion, and rehabilitation of the existing sewered sanitation infrastructure in urban areas.
ii) Ensure all urban physical plans provide for sewered sanitation infrastructure.
iii) Implement market-based approaches including public private partnerships (PPP) for non-sewered sanitation systems.
iv) Develop sewer densification strategies based on demand driven approach expressed through users contributing towards the capital cost of the sewer sanitation systems.
v) Promote decentralised condominium sewered sanitation in planned housing estates with real estate developers building the backbone/network and government constructing and operating the treatment plants.
vi) Develop, update and enforce standards for sewered sanitation systems as laid out in the PHA.
vii) Promote awareness creation to stop dispose of solid waste in sewer systems.
viii) Review the tariff for sewerage to make it more affordable.
ix) Enforce the law restricting onsite sanitation in areas covered by sewerage network.
x) Issue permits to private estate sewerage service provision supervised by WURD and NEMA
xi) Zone the city/town (as part of physical planning) according to the sanitation needs: central business district, high- and middle-income areas to have sewers and lower income areas to have non-sewered systems.

4.2.2 Non-sewered sanitation

Majority (95%) of urban sanitation facilities in Uganda are onsite sanitation systems with a big proportion being pit latrines. This is attributed to the exisiting sanitation policies and regulations that favour onsite sanitation due to its affordability, and due to the past facilitating factors such as low population density in the majority of the towns, availability of land for construction and replacement latrines and septic tanks etc.

However, the situation is now changing very fast requiring a new policy direction for onsite sanitation. The rapid urbanisation has increased the population density in towns and there is shortage of space for construction of new/replacement onsite sanitation systems. There is increasing pollution of water resources and emission of greenhouse gases (methane) by onsite sanitation systems. Onsite sanitation systems are increasingly becoming vulnerable to climate change (adverse weather events – flooding).

The recent developments offer new opportunities for sustainable onsite sanitation. These include advances in sanitation technologies, increased coverage of piped water supply at affordable cost, market based approaches, regulation and growing recognition by governments that sanitation is a public good and human right.

Policy issues

The Water Policy (1999) states that preference should be given to low-cost onsite sanitation (improved lined latrines with concrete slabs, sanplats or VIP latrines). The National Environmental Health Policy (2005) stated objective is to create an enabling environment for the achievement and maintenance of health living conditions in rural and urban areas. This is envisaged to be achieved through the MoH actively promoting and supporting the adoption of a National Sanitation Strategy, which to-date has never been developed.

The Public Health Act (Cap 281) as amended (section 85) provides for authorities to reject building plans without latrine accommodation. It further states that an authority shall not reject a building plan on grounds that the proposed latrine accommodation consists of or includes an earth closet (unlined pit latrine). To outlaw earth closets (unlined pit latrines) in urban areas will require amendments to this legislation.

The SDG 6.2 provides for access to adequate and equitable sanitation and hygiene for all and ending OD, while paying special attention to the needs of women and girls and those in vulnerable situations.

The current policies and legislations do not fully address the current challenges and developments with regard to onsite sanitation. All the policies and laws focus on containment and do not address the entire sanitation service chain including emptying, transportation, treatment and disposal/ reuse.

A myriad of recent developments requires a new policy direction with regard to onsite sanitation: The pollution of the water resources by onsite sanitation facilities (pit latrines and septic tanks); climate change, which causes flooding of onsite sanitation facilities; high population densities causing shortage of land for constructing/replacing onsite sanitation facilities; SDGs which promote safely managed sanitations; and

behaviour/practices of users of onsite sanitation facilities such as discharging untreated waste in drainage channels and disposal of used sanitary pads in latrines.

Currently, onsite sanitation is a responsibility of the households. However, there is a growing recognition that onsite sanitation is a public good similar to sewered sanitation and water supply and it is no longer tenable to justify it as a household responsibility. With increasing settlement density, poor sanitation in one household may have adverse consequences for the entire settlement/ neighbourhood with regard to transmission of diseases. There is need for a regulatory system to address market failures and to protect public health and incentivize delivery of safe, inclusive and viable services[18].

Policy Statement (Recommendation) 2: Government shall recognize onsite sanitation as public good and a human right for all citizens. Government shall ensure safe onsite sanitation including the management of faecal sludge through provision of supporting services and infrastructure for non-sewered sanitation systems across the value chain. Government shall implement the following strategies to ensure safe management of urban faecal sludge:

Containment

i. All toilets not connected to sewers shall be linked to a containment facility that is either designed to treat faecal sludge safely onsite or is "safely contained" and transported to be treated offsite
ii. The design of all facilities for containment of faecal matter shall be such that it does not constitute a health hazard to users, sanitation workers, water resources and the environment and should be climate-resilient.
iii. Promote lined emptiable (and lined) onsite sanitation systems and outlaw unlined pit latrines in dense urban areas i.e., with population density > 2500 inhabitants per sq.km.
iv. Review and update the various sanitation laws and regulations including the Public Health Act and Water Act to provide for safe FSM along the service chain.
v. Develop the designs and promote the construction of climate change resilient sanitation infrastructure.
vi. Promote generation of energy (biogas) from onsite sanitation systems to reduce emission of greenhouse gases (methane).
vii. Incentivising safe containment in low-cost settings.
viii. Address sanitation market failures through subsidies/ incentives to protect public health and the environment.

Emptying/Transport

i. MWE shall work closely with relevant stakeholders to develop standard operating procedures for safe emptying/transporting and conveyance of faecal sludge and ensure proper oversight and enforcement

[18] *United Nations Children's Fund (UNICEF) and the World Health Organization, 2020. State of the World's Sanitation: An urgent call to transform sanitation for better health, environments, economies and societies. Summary Report. New York.*

ii. Government shall facilitate private sector participation in the provision of emptying and transportation services through the relevant regulatory and enforcement mechanisms including licensing and certification of service providers
iii. All non-sewered toilet facilities in all settings that cannot be treated onsite shall ensure that the sludge is regularly emptied, and safely transported.
iv. Gazetting sanitation service areas and giving performance contracts private service providers

Treatment of faecal sludge

i. Government will work closely with other key stakeholders to construct FSTPs for cluster of towns and temporary storage/transfer station in each town.
ii. MWE shall develop and issue guidelines/regulations on standards for treated faecal sludge with regards to technical and financial context. Treatment standards should consider discharge and reuse situations, so that risks to public health are minimised.
iii. Design and construction of treatment facilities shall be cost-effective targeted to meet demand. The facilities shall consider end-use and final disposal. Safety of workers at treatment shall be ensured.
iv. Decentralised faecal sludge treatment facilities shall strictly adhere to the prescribed water and effluent quality regulations and standards to eliminate pollution of the environment, harm to human health and ensure safe disposal and/or reuse. They must be located to ensure safety, and minimise travel distance.
v. Where effluent is discharged above ground or into open drainage channels, or where end products of the treatment processes will be handled by people, the effluent or final product shall meet the national standards.

4.3 Governance and Institutional Arrangements

The governance and institutional arrangements for urban sanitation are not clearly defined. In 2001, the MWE, MoH, and MoES signed a Memorandum of Understanding (MOU) in which MWE was assigned the responsibility for planning investments in sewerage services and public facilities in towns and rural growth centres; MoH HH sanitation and hygiene; and MoES, school latrine construction and hygiene education. The parties agreed to finalize putting in place the institutional arrangements including cooperation mechanisms and resource prioritization for sanitation by 31 December 2001, which was never done. This MoU, although it expired in December 2001, it has remained the reference document for the institutional arrangements for sanitation.

Lack of defined institutional arrangements for urban sanitation has created the following challenges:

i) Lack of strategic planning and investment in urban sanitation.
ii) Absence of institutional accountability for urban sanitation performance.
iii) Lack of effective coordination of actors in urban sanitation subsector.
iv) Lack of regulations and standards for urban sanitation.
v) Weak institutional capacity for managing urban sanitation.

Policy issues

The Local Government Act 1997 (second schedule) states that the district is responsible for environment sanitation. The National Water and Sewerage Corporation Act (CAP 319) states that the mandate of NWSC is to provide and operate sewerage services in areas entrusted to it. The National Environmental Health Policy (2005) states that the National Sanitation Working Group is responsible for coordination of national sanitation activities with the Environment Health Division of the MoH as its Secretariat. It further states that the responsibilities for sanitation at local government level is shared between the government bodies including MoH, MoES, MWE and Ministry of Local Government (MoLG). It indicates that the roles are not mutually exclusive and urges cooperation and collaboration between the departments. It prescribes that in Kampala and larger towns sanitation master plans will provide for frameworks for operational planning and allocation of tasks. Public Health Departments are responsible for sanitation in urban councils. Under the MWE, there is Sewerage Division. Umbrella for Water and Sanitation Authorities (UWSA) and Water and Sanitation Development Facilities (WSDFs) are actors in urban sanitation.

Currently, there is no policy or legislation with explicit institutional framework for urban sanitation. As a result, there is no single government institution, which can be held to account for the performance of urban sanitation services. The coordination mechanism is weak partly due to absence of a lead agency. This has affected investment, regulation, planning and capacity development is urban sanitation. There is need for a policy to clarify on the governance framework for urban sanitation

Policy statement (recommendation) 3: Government within the framework of programme approach shall streamline the institutional governance of urban sanitation. Within the Human Capital Development (HCD) programme, MWE is the best suited to deliver on urban sanitation value chain including setting standards and guidelines for urban authorities and with private sector. The institutional home and lead agency for urban sanitation (Sewerage) shall be the ministry responsible for water i.e., MWE. MoH shall be the lead agency for hygiene promotion, while MoES shall be the lead agency for sanitation in education institutions.

Strategies

Government shall implement the following strategies to streamline the institutional arrangements for urban sanitation:

i) Establish a coordination mechanism for actors in urban sanitation subsector.
ii) Strengthen the governance of the urban sanitation subsector through establishing structures, systems and standards.
iii) Develop the capacity for urban sanitation workforce through professionalization and tooling.
iv) Promote innovation through research.
v) Building partnerships and networking with local and international organization.

4.4 Urban Sanitation Financing and Investments

Urban sanitation remains grossly underfunded. There is no specific government grant for urban sanitation. Funding has largely been through water projects with a component on sanitation financed by development partners and CSO/NGOs. Urban councils largely finance hygiene education and public latrines/ toilets. Government does not provide subsidies for HH. Financial institutions supported by NGOs (water.org and Water for People) provide credit/loans for construction of sanitation facilities. The private sector finance acquisition of cesspool trucks and gulpers including O&M. HHs and business bear the full cost of their sanitation facilities.

The current modality of financing and investment in the urban sanitation has created the following challenges:

- Inadequate investment in urban sanitation infrastructure.
- High cost of acquiring safely managed sanitation facilities/services, which is not affordable by the vulnerable urban poor.
- Inefficiency in the utilization of the available funding

Policy issues

The current sanitation policies do not address the issue of funding and financing sanitation, and as a result HHs are left to fully finance the cost of sanitation services across the value chain regardless of their ability and quality of services. This has contributed the current poor state of sanitation in urban areas in Uganda.

The National Environmental Health Policy (2005) states that government funding for sanitation promotion does not include **subsidies** towards the hardware cost of HH. That the case for the use of appropriate and carefully targeted subsidies would be considered when addressing the challenge of stimulating demand for improved sanitation and hygiene amongst the disadvantaged or marginalised sector of society as well as those living in difficult areas (rocky ground, sandy soils or high-water table area) and where innovative low-cost sanitation technologies are being pioneered for future scaling up.

International best practice suggests that in most countries, financing of sanitation infrastructure is by government through the ministries responsible for water and/or sanitation with the exception of Kenya and Zambia where financing of HH sanitation is carried out by a Trust Fund. In Burkina Faso, a government agency also subsidizes HH sanitation for the poor.

GIZ has piloted two approaches to increase access to safely managed sanitation at the household level: i) Increasing access to safe sanitation through Innovative Financing and, ii) Substructure promotional incentive pilot in the urban councils of Apac, Ibuje and Aduku.

In Uganda GIZ piloted sanitation facility substructure promotional incentive in urban councils of Apac. The results show that the substructure promotional incentive was a significant support for the HHs and can increase demand for safely managed urban sanitation.

Policy statement (Recommendation) 4: Government shall increase financing for urban sanitation infrastructure and services through traditional and non-traditional financing mechanisms. Government financing will focus on treatment and conveyance infrastructure of sewerage/faecal sludge including construction and extension of sewered sanitation systems, wastewater treatment plants, FSTPs with supporting infrastructure.

Where there is a threat to public health and HHs are incapable or cannot afford safe sanitation systems, government shall provide **incentives** for HHs to construct safe sanitation systems particularly in urban slums/informal settlement, and areas with difficult soils (rocks or collapsing soils) and high-water table. Government shall be responsible for financing sanitation in emergency situations caused by forced movement of the population including internally displaced persons and refugees due to natural disasters, wars/ conflicts etc. Government through the MoES and MoH shall finance sanitation and menstrual hygiene infrastructure in public education institutions and health centres.

The government shall introduce a sanitation levy/surcharge (either as a proportion of the water bill or property tax) to generate funds for sanitation improvements. The funds are to be channeled to an Urban Sanitation Fund located at the national or regional level and managed by MWE. The sanitation levy/surcharge should be in the range of 5-15% of the water bill as to not excessively burden the population.

Additionally, government financing may take the form of tax shillings, tax waivers, PPPs with housing estate developers, property owners and investors, and cost sharing with HHs, businesses and institutions. Government incentive may be in form of materials, construction of substructure for latrines, tax waivers, technical support, soft sanitation loans etc., but **not direct cash transfers**. Government incentives shall be one off support, timebound and promotional in effect to increase a critical mass of emptiable toilets in urban areas.

Urban councils using locally generated revenue and conditional grant from the central government will finance public sanitation infrastructure for transient urban population, promotion of sanitation and hygiene, and enforcement of sanitation standards and regulations. The management of these infrastructure should be handed to the private service providers based on a annually recurring framework contract. Where there is a threat to public health and environmental degradation, and HHs are incapable or cannot afford safe emptying of latrines (in slums/ informal settlements, refugees or displaced population) urban council shall finance the cost of emptying latrines or offer free emptying services.

For sewered sanitation systems, HHs, businesses and institution shall finance the cost of plumbing works/ connection to the public sewer and paying the monthly tariff/ bill. For non-sewered sanitation, HHs, businesses and institutions shall finance the construction of lined latrine/ toilet, septic tank, and cost emptying, transportation and treatment of the faecal sludge. For public facilities, users shall pay a modest user fee to cover the cost of O&M. However, urban councils shall grant waivers to the poor elderly, homeless, street children and disabled persons to use public toilets at no cost.

NWSC and other sanitation utilities (Umbrella for Water and Sanitation Authorities) shall finance operations of treatment plants, extensions of sewerage connections and emptying services respectively.

The private sector shall finance emptying and transportation equipment (cesspool trucks, Pupu Pump, Gulpers, etc.) and recycling of faecal sludge and will recover their cost through charging for their services or products. Government shall consider tax waivers on such equipment and value added tax (VAT) on faecal sludge emptying, transportation and treatment services as it provides for a public service.

Development Partners including NGOs/CSOs will supplement central government and urban councils financing along the sanitation service chain through loans and grants for sanitation infrastructure and support to the vulnerable households in slums and informal settlements.

Strategies

Government will implement the following strategies to increase funding for urban sanitation:

- Promote and support PPP in financing sanitation infrastructure.
- Provide incentives to financial institutions to provide sanitation loans/credit to HHs and businesses on favorable terms.
- Explore contractor sourced financing for urban sanitation infrastructure.
- Engage with Development Partners and NGOs to increase funding for urban sanitation infrastructure and services
- Provide targeted incentives for the vulnerable urban poor to access safely managed sanitation.
- Provide tax incentives for investors in urban sanitation infrastructure and services.
- Mobilize households to pool together financial resources to improve their sanitation facilities.
- Revise and update the fines for breaking sanitation related laws and regulations.
- Promote user fees for public sanitation facilities.
- Review of tariff for sewerage to promote connections and enforce existing laws regarding connection to sewer systems.

4.5 Human Capacity for Urban Sanitation

The human capacity for urban sanitation remains low. The workforce is multidisciplinary comprising of sanitation engineers, environmental health, social workers, and generally social scientists. The major capacity challenges affecting the workforce include:

- Understaffing in relation to the workload.
- Inadequate technical skills with regard to urban sanitation systems.
- Inadequate resources and tools for facilitating work for urban sanitation.
- Fragmented capacity development plans for urban sanitation workforce.
- Lack of standards and protocols.

Policy issues

Currently there is no comprehensive and coherent urban sanitation capacity development policy covering human resource and institutional development. The National Environmental Health Policy (2005) only dealt with capacity building of environmental health staff at local government level. It indicated that training and technical support for the environmental health staff will be enhanced to ensure that they have appropriate skills to meet the current environmental health challenges. However, the Water Policy (1999) was salient about capacity development for the sewerage workforce. The national urban policy (2017) provides for the MoLG and Development Partners to strengthening urban authorities through capacity building and training.

The Water Act (1997) section 71 granted the powers to conduct training courses for plumbers and drainers to the Director water development including organizing training courses for plumbers and drainers or other operators. NWSC Act (1995) provides for the corporation to organize and conduct training programmes in connection with the provision sewerage services; and to provide specialist assistance relating to sewerage services to any public authority.

The Local Government Act (1997) as amended section 96 provides for technical support to local governments. It states the for purposes of ensuring implementation of national policies and adherence to performance standards on the part of local governments, Ministries shall offer technical assistance and training. International best practice suggest that sanitation capacity development is led by line ministries and agencies.

The effects of lack of a comprehensive and coherent urban sanitation capacity have been under resourced urban sanitation workforce with regard to skilled technical staff and tools, lack of integrated capacity development plan for urban sanitation workforce; and lack of standards and protocols for urban sanitation services. The urban sanitation institutional capacity remains weak and under resourced.

Policy statement (Recommendation) 5: Government shall strengthen the institutional and human capacity to enhance urban sanitation service delivery. This will be achieved through:

i) Human Resources and institutional capacity development including skilling and tooling the sanitation workforce, as well as resourcing, developing systems and standards for sanitation institutions e.g., MWE urban sanitation department, sanitation regulation unit, urban authorities, WSDFs, umbrella for Water and Sanitation and NWSC.
ii) Specialised training on urban sanitation issues in institutions of higher learning, which is post-basic professional training
iii) Training for non-state actors including the private sector and NGO/CSO with regards service standards, approaches and technologies.
iv) Staffing and professionalising the urban sanitation workforce at all levels-- (urban sanitation department, sanitation regulation unit, urban authorities, WSDF, umbrella for Water and Sanitation, NWSC etc.

Strategies

Government shall implement the following strategies to develop the capacity of the urban sanitation workforce:

i) Develop and implement an integrated capacity development plan for urban sanitation.
ii) Resource the urban sanitation workforce with technical staff, tools and financial resources.
iii) Develop and implement performance systems, standards and protocols.
iv) In collaboration with higher institutions of learning (Universities) carry out specialized training for urban sanitation professionals, and develop curriculum for sanitation practitioners along the sanitation service chain.
v) Develop and implement an integrated capacity development plan for urban sanitation
vi) Build the capacity of the regulation unit including resourcing it to effectively carry out its mandate.

4.6 Regulating Urban Sanitation

There are laws and regulations, which regulate urban sanitation: the Public Health Act as amended (2000), NEMA Act regulations on waste disposal (2020), Water Act (1997) sewerage regulations, NWSC Act (1995) on sewerage management, Local Government Act (1997) on sanitation service delivery and Physical Planning Act (2010) regarding approval of building and physical plans with provisions for sewerage infrastructure.

However, some of the laws/ regulations are old and needs to amended to address the current urban sanitation challenges. For example, the Public Health Act provides for earth closet (unlined pit latrines); however, these are no longer appropriate for urban areas because water resource pollution, transmission of infections and shortage of land for replacement. For waste disposal (including faecal sludge) NEMA is the regulator but for other aspects of sanitation along the service chain have no regulator to ensure service standards are complied with.

The MWE Urban Utility Department is in the process of developing sanitation standards to facilitate the regulation. However, these standard need to be anchored in the regulations to be enforceable. The effects have been:

- Inadequate enforcement of laws, regulations and standards regarding urban sanitation particularly with regard to faecal sludge management.
- Proliferation of unqualified service providers who compromise the quality of service.
- Lack of mechanism for resolving grievances between service providers and consumers regarding urban sanitation.

Policy issues

The current laws and regulations are not sufficient to address the challenges of urban sanitation. The Public Health Act needs to be amended to outlaw earth closet (unlined pit latrines) in urban areas and revise the fines related to sanitation to make them deterrent. The NWSC and Water Act needs to amended to provide for faecal sludge management and urban sanitation regulator.

International best practice suggest that independent regulator enhance compliance with sanitation standards and regulations.

Policy statement (Recommendation) 6: Government shall make amendment to the relevant sanitation related laws and regulations (e.g., Public Health Act, Water Act and NWSC Act) to address the legal gaps to strengthen enforcement and service delivery. Government shall consider creating an independent regulatory unit for urban sanitation to address the current regulatory gaps and grievance redress.

Strategies

The Government will implement the following strategies to regulate urban sanitation:

i) Review and propose amendments to the current laws/regulations related to urban sanitation, particularly with regard to the Public Health Act and Water Act to incorporate the FSM and revise the fines to make them deterrent.
ii) Create and resource an independent unit responsible for urban sanitation regulation. The regulator shall set and enforce urban sanitation rules, regulations and standards; license urban sanitation service providers; and establish a grievance redress mechanism. The regulator shall cooperate and collaborate with other Units/regulators including NEMA and Urban Councils.
iii) Establish grievance management mechanism for urban sanitation service delivery.

4.7 Private Sector Participation

The Commitment 8 of AfricaSan Ministerial decision of 2015 states that governments must take action to enable and encourage private sector participation in the sanitation sector. Despite this Commitment being adopted by members of the African Union, private sector participation in sanitation remains unrecognized by most governments in sub-Saharan Africa including Uganda.

The private sector plays a crucial role in the urban sanitation service delivery chain. It provides services for construction of sanitation facilities, emptying and transportation of the faecal sludge, supplies materials and equipment. It can play a very key role in the treatment, disposal/reuse of sanitation end products if the enabling environment is created. The end result of which can improve food, energy and job security. However, the majority of the private sector actors are informal and unregulated businesses which have caused the following problems:

- High cost of low-quality urban sanitation services.
- Lack of a mechanism for sanctioning errant private sector actors.
- Loss of tax revenue because informal unregistered businesses.
- Lack of technical and financial capacity due to ineligibility for credit/loans and government support.
- Inadequate/ineffective treatment facilities and technologies.
- Lack of recognition and incentives to facilitate their and,
- Stigmatisation of sanitation work and workers

Policy issues

The PPP Policy (2010) provides a framework for the government and private sector participation in infrastructure projects. The models provided by the PPP policy include Design, Build, Finance and Operate, Concession, Sale and Lease back, Lease, and Joint

Ventures. These models can be adopted for sanitation infrastructure projects as demonstrated by the GIZ pilot of Leasing Model of Operation of Cesspool Trucks in Northern Uganda. The results of the pilot shows that the leasing model was viable.

The National Environment Health Policy (2005) stated that the public private sector participation is a key requirement to the success of the environmental health programs. However, the policy did not elaborate how the private would participate in environmental health programs. The Water Policy (1999) noted that the private sector can play a key role in construction and delivery of services including design and construction, O&M, training and capacity building, and commercial services. It stated government intention to promote the role of private sector in mobilising and financing the development of water and sanitation services particularly in urban areas.

International best practices show that the private sector plays a key role in emptying and transportation of faecal sludge, and operation of large sewer networks and treatment plants.

The government recognises the importance and participation of private sector, but not clear on how it can be engaged and involved in urban sanitation service delivery.

Policy statement (Recommendation) 7: Government shall develop enabling policy guidelines to regulate private sector participation and will implement Public Private Partnership (PPP) in the delivery of sanitation infrastructure and services across the service chain. Government shall consider targeted incentives to promote the private sector participation in sanitation service chain where there is market failure.

Strategies

Government will implement the following strategies to regulate the private sector:

i) Facilitate business registration with Uganda Registration Services Bureau (URSB).
ii) Mapping, identification and issuing operating permits/ licenses.
iii) Establish, update and publish a register service provider.
iv) Establish mechanism for sanctioning errant private sector actors.
v) Provision of incentives in form of tax breaks, trainings, loans, access to tools/technologies and spare parts for their work and formalization of sanitation work and workers.
vi) Construction of accessible treatment facilities and formation of PPP for operation and maintenance.
vii) Advocate for investment in appropriate sanitation product development.
viii) Promote affordable toilets options that meet minimum standards.

4.8 Menstrual Hygiene Management (MHM)

Menstrual hygiene management (MHM) in HHs and institutions presents a big challenge in the efforts to improve sanitation along the service chain. MHM falls within the docket of MWE due to the fact that the disposal of used sanitary pads is a challenge for urban sanitation. Majority of HHs, businesses and institutions do not have menstrual pads bins and incinerators for safe disposal of used sanitary pads. Majority of women and girls

dispose used menstrual hygiene materials in onsite sanitation systems (latrines and septic tanks). This has caused the following challenges:

- Used sanitary pads disposed of in lined latrine or septic tank affects the mechanical emptying by blocking the draining system.
- Some of the materials used for making the sanitary pads is non-biodegradable which affects the faecal sludge treatment process.
- Cesspool and Gulper operators resort to unsafe manual emptying if they the mechanical emptying system fail.

Policy issues

Menstruation is culturally sensitive and rarely discussed in public policy making domain. The National Water Policy, National Environmental Health Policy, and Public Health Act are all salient about menstrual hygiene. However, in recent past, menstruation hygiene has gained traction as a major gender and public health issue. Access to MHM materials in urban poor households and institutions (schools) has affected school enrolment and retention of the girl child[19].

SDG 6.2 is to achieve access to adequate and equitable sanitation and hygiene for all, with a special focus on the needs of women, girls. The Water and Sanitation Gender Strategy (2018 – 2022) highlighted promotion of washrooms for girls and women, and menstrual bins, and the need review the latrine/toilet design to incorporate facilities for schools. The policy was salient on designs of public sanitation facilities to include MHM facilities. The Gender in Education Sector Policy (2016), one of its policy objectives is to promote school or education institutions facilities and infrastructure that are responsive to women and girls' special needs and interest. It proposed design and implementation gender inclusive sanitation infrastructure.

Policy statement (recommendation) 8: Government shall invest in public infrastructure for menstrual hygiene management in particular schools and public places. Government will provide incentives to promote safe menstrual hygiene management including considering tax waivers on MHM products. Government shall create awareness on the risks of unsafe disposal of used menstrual hygiene products as part of hygiene education. Government shall provide emergency sanitary products (pads), and disposal facilities (pads disposal bins and/ incinerators) to all public schools and health care facilities.

.

Strategies

Government will implement the following strategies to promote safe MHM:

- Review and update the design of public sanitation facilities to include MHM facilities.
- Consider tax waivers for MHM products.
- Promote and enforce provision sanitary pads bins in all public, households, businesses and institution latrines/toilets.
- Review and update hygiene education materials to incorporate the risks of disposal of used menstrual hygiene products.

[19] UNICEF, 2024

- Develop IEC materials depicting the risks of unsafe disposal of used menstrual hygiene products.
- Sensitize women and girls on the risks of unsafe disposal of used menstrual hygiene products.
- Ensure provision of pads disposal bins in educational institution, health centres and businesses centres.
- Provide emergency sanitary products to all public schools.

4.9 Urban Sanitation and Climate Change

Uganda is one of the vulnerable countries to the adverse effects of climate change. These effects have started to manifest through adverse weather conditions characterized by frequent floods particularly in informal urban settlements/ slums. The floods destroy the sanitation infrastructure including latrines and septic tanks, which leads to pollution of water and environment, risk rapid spread of sanitation related diseases like cholera and other diarrheal diseases.

Conversely, Uganda's onsite sanitation systems contribute to greenhouse gases (methane) which are exacerbating climate change. Sanitation systems account for 1.3% of the global greenhouse gas emissions[20]. Sanitation policies need to be updated to incorporate climate change adaptation and mitigation measures.

Policy issues

The Uganda National Climate Policy highlighted inadequate sanitation facilities as one of the causes of Uganda's vulnerability to climate change. It suggested provision of sanitation as one of the adaptive mechanisms to limit outbreaks of water borne diseases due to extreme weather (flooding). The policy predicted impacts of climate change in Uganda will affect communities in poor urban neighbourhood with poor infrastructure including sanitation. It suggested promotion of urban planning and development of human settlements that are resilient and robust enough to withstand climate change–related risks and hazards; and revising structural/building standards to withstand changes in climate.

The current sanitation policies and legislations have not addressed the threat posed by climate change on sanitation infrastructure. There is no sanitation policy which talks about climate change effects and adaptation measures.

Policy statement (Recommendation) 9: Government shall promote climate change resilient sanitation infrastructure including onsite sanitation facilities (lined latrines, reinforced septic tanks) and treatment plants. Government shall create awareness on the effects and adaptation of climate change on sanitation. Government shall promote sanitation technologies that mitigate Green House Gas emissions from systems along the sanitation service chain, recover resources and transforms methane into energy (biogas).

[20] *Ritchie T. and Roser M. 2024. Sector by Sector: Where do global greenhouse gas emissions come from our world in data.*

Strategies

i) Develop and implement climate change resilient sanitation infrastructure design and building codes.
ii) Promote sanitation systems/ technologies that reduce emissions of methane through generation of energy (biogas) and resource recovery (compost).
iii) Create awareness about the adverse impacts of climate change on sanitation infrastructure and associated risks.