

Citywide Inclusive Sanitation: Who is responsible?



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Cover image: Utility staff member and resident in Githogoro, Nairobi. Credit - Brian Otieno





Image: Compound in low-income area of Kisumu, Kenya

1. Introduction

1.1 The three functions of Citywide Inclusive Sanitation

This publication forms part of a series looking at Citywide Inclusive Sanitation in terms of three closely related requirements for achieving safe, inclusive and sustainable urban sanitation: clear **responsibility**, strong **accountability**, and fit-for-purpose **resource planning and management**. Responsibility defines what entity has a mandate to deliver a service. Accountability mechanisms are then required to ensure that mandated responsibilities are

fulfilled. Effective resource planning and management are required to ensure that mandated entities are sufficiently resourced to be able to fulfil their mandate. These three functions (responsibility, accountability, resource planning and management) are introduced in three short initial publications released in May 2021. This paper is one of three complementary publications that explain these functions in more detail, on the basis of specific case studies: this publication focuses on responsibility.

Figure 1: CWIS Framework



Citywide Inclusive Sanitation as public service

Formal urban sanitation systems by and large focus on financing and managing piped sewerage infrastructure. In many urban contexts, these sewer systems are missing entirely; where they exist, they reach limited areas of the city, do not serve vulnerable informal communities, and are threatened by climate change, age, and inadequate or inconsistent water or energy supplies. Meanwhile, non-sewered sanitation systems (based around pit latrines, septic tanks or container-based solutions) are generally treated as a household responsibility to be addressed by private sector product and service providers.

But safe inclusive urban sanitation fundamentally protects the public goods of public health and the environment, irrespective of the hardware used to meet that need. The uncoordinated market actions of private

sector and household decision makers in aggregate will fail to protect public health, safety, or inclusivity outcomes. Allocating subsidized public finance to a narrow market segment has often led to use of public funding that is both inefficient and inequitable, as it disproportionately excludes the poorest from the benefit of public subsidies. So there is an urgent need for institutional systems that incentivize city-level improvements in safe containment, emptying, transportation and treatment of fecal waste, including mechanisms designed explicitly to reach the poorest with equitably financed safe services and which protect the health and environment of the most vulnerable communities.

Recognizing sanitation as a public good does not imply that the public sector has sole responsibility. The private sector can play key roles within a publicly managed system. In fact, a well-structured and regulated sector can increase business opportunity and incentivize innovation to meet health and inclusivity goals.

In a complementary short publication (ESAWAS, 2021a), we give a brief initial overview of responsibility in the context of Citywide Inclusive Sanitation. The short publication introduces a typology of the main approaches to defining and assigning mandates for sanitation services to one or more responsible authorities, outlines positive mandate traits, and introduces some of the key challenges connected to the definition and execution of responsibilities. In this publication, we explore these issues in greater depth, drawing particularly on the experience of

seven countries: Malaysia, Zambia, Uganda, Bangladesh, Rwanda, Mozambique and Brazil. In order to gain a good understanding of the situation in these countries, we conducted expert respondent interviews for each country, as detailed in Appendix 1.

Why are clear responsibilities for urban sanitation so important?

Given climate change, urbanization, and aging infrastructure, urban sanitation services are increasingly critical to city resilience, and increasingly difficult to deliver. The concept of Citywide Inclusive Sanitation was proposed to address an urgent growing need to focus public and especially government attention on the need to shift priorities from narrow, expensive and limited infrastructure-investment focused “solutions” to service-focused-mandates, accountability systems, and resource planning and management.

To understand how to change and improve systems, we start by seeking to understand the incentives of key actors. With that foundation, we can then identify what institutional changes are needed to incentivize those actors — citizens, private companies, and public agencies — to continuously be finding ways to deliver and improve services in the context of a city’s constantly changing resource levels, challenges, and needs. To understand incentives around public services in any city-country context, there are three fundamental questions to ask:

Who is responsible for what outcomes?

How are they held accountable for that responsibility?

How are they resourced to plan and manage their responsibility?

These questions are helpful, because they trigger a deeper interrogation of incentive structures that must be understood for designing interventions, whether financial, legal, or social in nature. They are foundational questions around which others can be organized.

We start with the question “**Who is responsible for what**” because too often expectations of public authorities, private citizens, or private sector companies do not match the incentives they face. Expectations can often be placed on public agencies to deliver sanitation services that are outside their legal mandate and therefore beyond their legal ability to collect and use revenue or finance for activities, unless projectized or under a Corporate Social Responsibility (CSR) rationale. In those scenarios, accountability mechanisms and finance are not shaping or strengthening fundamental service delivery systems.

1.2 Responsibilities as the foundation for Citywide Inclusive Sanitation

Clear responsibilities, also referred to as “mandates”, provide the foundation from which all CWIS functions follow. In order to provide universal sanitation services, there must be a responsible authority with a clear, legal mandate for inclusive urban service provision (Schrecongost et al, 2020). This is in part because sanitation services are intended to deliver public goods, namely public health and environmental protection, for which the government is ultimately responsible. Without clarity on what agency in the public realm is responsible for delivering specific services as public goods, effective accountability becomes impossible.

1.3 Definitions, methodology and structuring questions

How then is “responsibility” defined? In this paper we focus on asking which authorities have the *legal mandate* for urban sanitation service provision, and what specifically is included in that mandate. This is sometimes called *de jure* responsibility. The global mapping to inform this publication was conducted through a desk-based document review, incorporating country studies, consultancy reports, conference papers and journal articles. This was supplemented through discussions with global and country-level experts. Our core reference points in determining responsibilities were national-level policy documents, frameworks and strategies.

Drawing on the above, the overall paper aimed to respond to four core structuring questions:

- Looking across geographies, who has the mandate for urban sanitation service provision?
- How (if at all) are mandated actors delivering on their responsibilities?
- What positive traits can be identified pertaining to urban sanitation mandates?
- How (if at all) are mandate typologies now evolving?

Who is this publication aimed at?

The target audience for this publication is wide-ranging, including regional WASH fora; national-level policy makers and city-level decision makers; development agencies, funding agencies and other WASH professionals. However, the authors consider the paper may be particularly useful for decision makers at the policy level, including (for example) senior technical staff within national ministries. The primary audience further includes senior and mid-level staff in regulatory agencies and city-level sanitation authorities.

In addition, five sub-questions were identified as being of particular importance. These questions are addressed in turn in Section 4:

- What are the key contributing factors for responsible authorities failing to execute their mandate?
- What challenges (if any) do split mandates present to citywide inclusive service provision?
- What is the private sector’s role in supporting execution of mandates?
- What are the key issues in relation to responsibility and serving the poorest?
- How does responsibility relate to accountability and resource planning and management?

The task of tracing legal mandates proved not to be straightforward. Responsibilities may overlap or have gaps. Responsibility may be formally delegated from one authority to another. And responsibility on paper may differ from who is practically discharging the responsibility on the ground (what is sometimes called *de facto* responsibility). In completing the global mapping, many cases were identified where responsibilities for urban sanitation could not be extracted and stated with any confidence. This is particularly the case for non-sewered sanitation.

However, we also encountered a number of cases where the clarification of responsibilities for urban sanitation is being given high priority; where meaningful processes of revision are underway or recently completed; and where city authorities are trialling new models for *executing* their mandate. These examples provide the basis for our case studies. They also inform the core message of this paper: that mandates are the foundation for defining incentives and action, and they are not static. The evolution and improvement of responsibilities can usefully be viewed as an ongoing process.

1.4 Publication Structure

The publication is structured as follows:

- **Section 2** introduces a typology of responsibilities for urban sanitation, based on a mapping of 34 countries in Africa, Asia and Latin America. The typology outlines 5 ways in which urban sanitation mandates can be structured. We have included one case study for each of these structures, interspersed throughout the text, to ground the discussion in the experience of specific countries and cities. Section 2 also provides detailed mapping of responsibilities across the sewerage sanitation (SS) and non-sewered sanitation (NSS) service chains in a subset of 10 countries.
- **Section 3** introduces positive mandate traits arising from the mapping exercise. While there is no one-size-fits-all model for structuring urban sanitation responsibilities, we believe these traits represent generalisable principles for adoption by policy-makers in the design and clarification of responsibilities.
- **Section 4** presents findings relating to key issues around responsibilities for urban sanitation, grounded in the first-hand perspectives of our expert informants working within regulators and city-level authorities.
- **Section 5** presents a summary of overarching conclusions, aimed primarily at national-level policy-makers within Ministries, city-level decision-makers and regulators.



Image: Wastewater treatment plant, Addis Ababa, Ethiopia. Photo Credit: Chris Terry.

2. Responsibilities: A framework for analysis

2.1 Who has the mandate: a typology of responsibilities for urban sanitation

To assess what makes urban sanitation mandates fit-for-purpose, it is useful to first understand how responsibilities are currently structured at the global level. To develop this understanding, a mapping exercise was conducted across 34 countries in Africa, Asia and Latin America. The desk review aimed to assess how *de jure* and *de facto* responsibilities are currently structured across all elements of the urban sanitation chain — from capture to

treatment and disposal — and to develop a foundational framework for the different mandate structures that exist.

The mapping identified 5 overarching mandate structures, detailed in Table 1 below. At the most basic level, *de jure* responsibility for urban sanitation will reside with one of two institutions: the utility, which may be publicly or privately owned; and the local government (often municipal authorities). It is important to note that utilities and local governments have some high-level differences: utilities are generally likely to have more specific service mandates (for

Table 1: Existing mandate structures for urban sanitation. Subnational utilities may be city-level, or at the county/region/state level.

Mandate structure	Mandate for sewered sanitation (SS)	Mandate for non-sewered sanitation (NSS)	Mandate for SS and NSS integrated or split	Examples
1	National utility	National utility	Integrated	Malaysia, Senegal, Rwanda
2	Subnational utility	Subnational utility	Integrated	Zambia, Tanzania
3	National utility	Local government	Split	Uganda, Sri Lanka
4	Subnational utility	Local government	Split	Bangladesh, Philippines
5	Local government	Local government	Integrated	Ghana, Mozambique, Ethiopia, Indonesia, Thailand, Bolivia, Brazil

example water and sewerage); to have ring fenced budgets for sewer systems; and to have cost goals. By contrast, the public service remit of local governments is much broader. Any funds for sanitation may be integrated within the general city budgets of local governments.

In addition to utility and local government involvement, the mandate structure can be distinguished by two further variables:

- If mandates for sewered and non-sewered sanitation are **integrated**, and so jointly held by one institution, or **split** between the utility and local government
- If the jurisdiction of the utility is at the **national, regional or city level**

Wider findings from the mapping exercise include the following:

Globally, the default service authority for non-sewered sanitation is the local government. While there are emerging and significant examples of utilities adopting responsibility for NSS — including in Zambia, Rwanda and Tanzania — regional, federal or national-level utility involvement in NSS remains relatively less common. We see local government-led non-sewered sanitation commonly across geographies, in Africa, Asia and Latin America. We explore the implications of this default placing of NSS in Section 4.

Even where utilities operate, split mandates are the prevailing policy approach. Of the mandate structures shown in Table 1, two (Structures 3 and 4) are “split mandates”, with one entity responsible for sewered sanitation, and another entity responsible for non-sewered. Where utilities exist, Type 4 is common: a city-level utility is responsible for sewered sanitation, while local government is responsible for non-sewered sanitation. This reflects sector norms which assume water utilities to be synonymous with sewered approaches — since both water and sewerage are networked infrastructures — while non-sewered approaches have tended to be viewed as an interim solution prior to sewer upgrading, and therefore not always considered relevant for coordinated public services and investment. Local government authorities have historically engaged only at the margins of sanitation (for example defining building codes, financing public toilets and loosely coordinating the private sector), though with a few prominent exceptions, such as eThekweni Water and Sanitation Unit of the municipality serving the city of Durban in South Africa.

Some countries have multiple mandate structures. Multiple mandate models can exist within the same country, caused by institutional inconsistency at the national level, delegation of institutional design to states, or varied approaches by city classification. In Philippines for example, there are a wide range of institutional arrangements for urban sanitation. In Brazil, the legal mandate for sanitation lies with municipalities, but services — which are largely sewered — may be provided by a municipal department, a State-owned utility, or even a municipality-owned utility, as is the case in the city of Juiz de Fora (Minas Gerais State).¹

2.2 Who has the mandate: mapping responsibilities across the sanitation chain

Table 1 presents how mandates for *sewered* and *non-sewered sanitation* respectively are structured globally. But this binary distinction between SS and NSS is a simplification: in some cases mandates are further divided according to elements of the sanitation chain.

Figure 2 provides a detailed mapping of urban sanitation responsibilities in a subset of 10 countries, ordered by mandate structure. The mapping shows that while the service chain for sewered sanitation will generally be integrated within a single institution, the service chain for non-sewered sanitation can be more complex. For example, local government may hold responsibility for emptying and transport, but the utility may hold responsibility for septage treatment, as is the case in Kampala (Uganda). The mapping also clearly demonstrates that while municipalities may have a role in enforcing standards for the design and construction of facilities at the beginning of the sanitation chain, there is a widespread assumption that households should take full responsibility for capture and containment, and that the core institutional responsibilities for NSS begin only at the emptying stage.

Our typology (see Table 1 and Figure 2) outlines the basic permutations for how urban sanitation responsibilities may be assigned. The mandate structure will of course be influenced by the prevailing institutional arrangements (for example, the presence or absence of utilities). But regardless of the broad structure, and which institutions hold responsibility, a number of *positive mandate traits* can be identified as principles to be applied by policy-makers in defining or clarifying responsibilities for urban sanitation.

¹ The case of Juiz de Fora is explored in more detail in the parallel paper in this series on Accountability.

Figure 2: Mapping of responsibilities across the urban sanitation service chain in 10 countries.

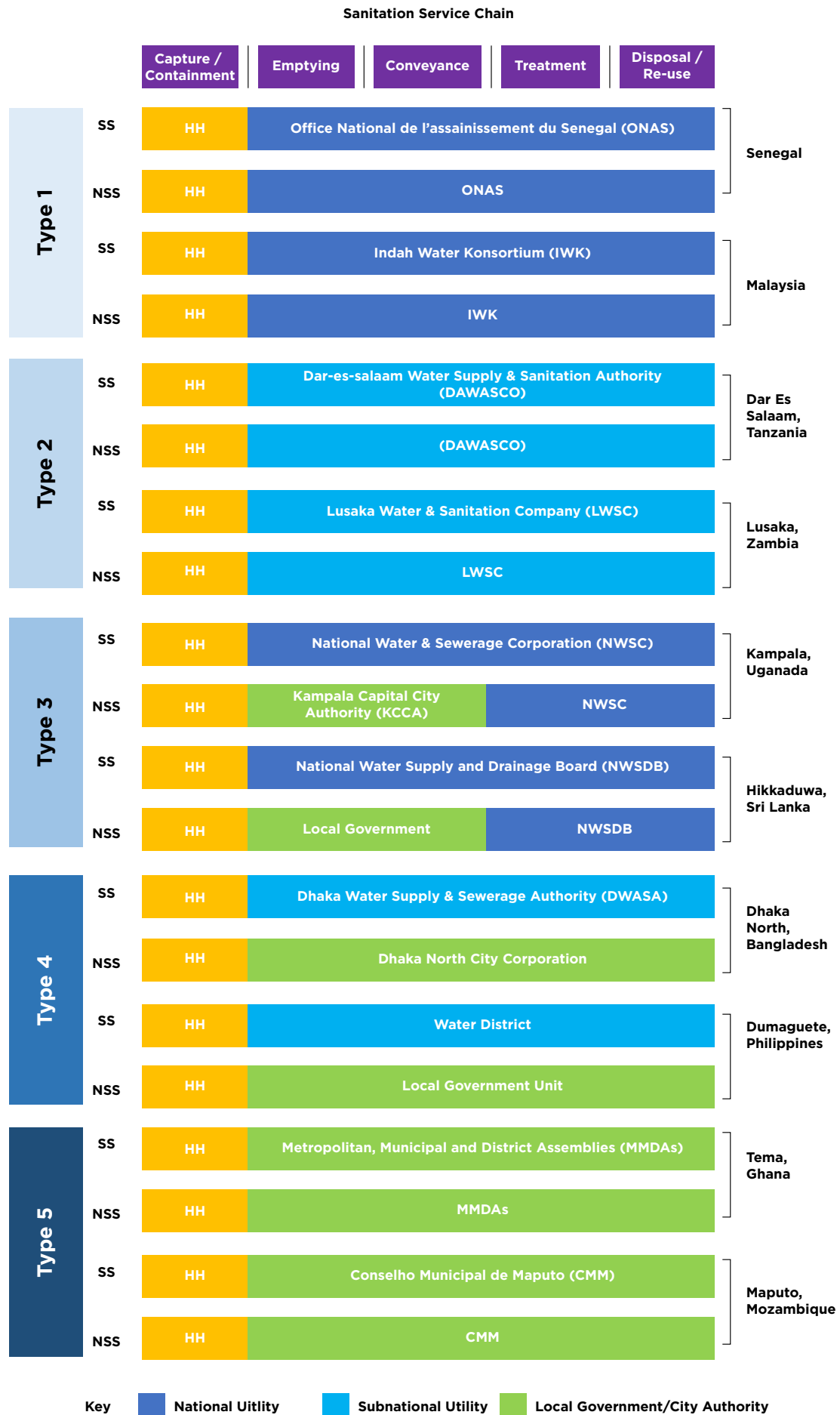




Image: FSM transfer station under construction in Chazanga, Lusaka

3. Positive mandate traits

3.1 Mandates should provide clarity on who is responsible for ensuring different elements of the sanitation service chain

At the global level, mandates for non-sewered sanitation are often poorly delineated: one or more entities may have some loosely defined “responsibility” for elements of the chain, but without real clarity. Effective mandates require explicit definition and communication of where the responsibility of the household for capture and containment begins and ends; clarity over who is responsible for treatment of fecal sludge (made more complex in contexts where the local government is responsible for emptying services, but the only functional treatment facilities are operated by utilities); and clarity over who is responsible for re-use or disposal of treated waste. This final element of the sanitation service chain, described by one informant as the “latecomer to the party”,² can be overlooked, with greater focus being paid to upstream elements of the chain. As with treatment, achieving clarity of roles and responsibilities for disposal and re-use of fecal sludge is made more complex where responsibilities for SS and NSS are split — for example in Kampala, where NWSC is the main producer of treated fecal sludge and KCCA is involved in re-use (see Page 15). However, we also see re-use overlooked in cases of integrated responsibilities — for example in

Malaysia, where no institution is responsible for this final element of the service chain.

At the policy level, a shift can be observed in the clarity of mandates in relation to the full sanitation service chain in the Sustainable Development Goal (SDG) era. Policies formulated in the MDG era tended to focus principally on containment, but failed to address safe management across the entire sanitation service chain. Although there are exceptions, policies formulated in the SDG era are more likely to address the service chain comprehensively: here Zambia’s 2020 National Water Supply and Sanitation Policy is an exemplar.

In the context of clarifying responsibilities at every step in the chain, service chain boundaries require particular attention. For example, if one entity has the mandate for emptying and another the mandate for treatment, who is responsible for removing trash from sludge? Issues of this type can be overcome through the development of clear and agreed Standard Operating Procedures (SOPs), which can then be deployed to guide operations under each element of the sanitation chain. Similarly, the precise limits of household responsibility and higher-level responsibilities for ensuring household compliance should be clearly defined. Here local governments may have an important role to play in advancing *accountability* through the enforcement of standards for containment

² Key Informant Interview (KII): Allan Nkurunziza.

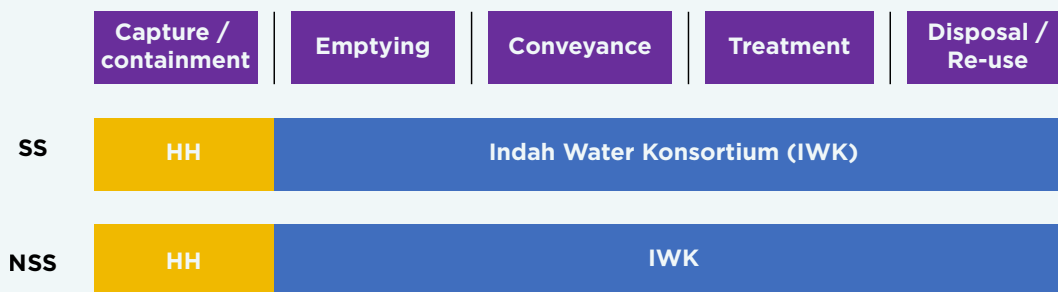
structures; but most national sanitation policies and strategies implicitly assign *responsibility* for urban sanitation in non-sewered areas to individual households.

A key question that arises is the boundary between household responsibility for capture and institutional responsibility for emptying. It is important to clearly define where responsibility lies for sourcing the emptying service: in some countries it is considered the household's responsibility to contact an emptying service when their pit or septic tank is full, in which case customers must be able to source

the necessary information to contact formal providers. In other countries, scheduled desludging is the default service model, shifting responsibility to the service provider to proactively and pre-emptively contact customers. Malaysia is one example of this service model — see Mandate Structure Type 1 below.

Mandate Structure Type 1: Malaysia

Sanitation Service Chain



Malaysia is unique among the case studies featured in this publication, for achieving near-universal (96%) access to safely managed sanitation in urban areas. This has largely been achieved through sewerage sanitation, with 80% of urban residents now connected to a sewer line. The remaining 1.1 million urban residents are dependent on septic tank systems (IWA, in press). Over the past 25 years the country has applied multiple business models for NSS, with scheduled desludging soon to be again made mandatory after a period of liberalisation.

Who has the mandate in Malaysia?

Malaysia is an example of integrated mandates for urban sanitation: responsibility for both sewerage and non-sewered sanitation in urban areas in peninsula Malaysia sits with the national sewerage corporation, Indah Water Konsortium, a private company owned by the federal government. IWK has lead responsibility for all elements of the sewerage and non-sewered sanitation service chains, with the exception of re-use, which is not accounted for. IWK is responsible for sanitation only, not water supply services.

How are NSS mandates being executed?

From the period 1994 – 2008 IWK executed its mandate for NSS through a scheduled desludging model, with a requirement to de-sludge each facility every 2 years, although this was poorly enforced. During this period IWK was the only operator engaged in formal desludging services. In 2008 the policy decision was taken to liberalise the market for desludging services, with IWK outsourcing services to private sector partners, to be provided on demand. These reforms were implemented under the auspices of the newly formed national regulator, SPAN, with a view to optimising efficiency and reducing the total costs of emptying. However, the liberalisation of the market resulted in a massive drop in the number of services being provided, from approximately 100,000 to 10,000 annually.

How are responsibilities now evolving?

Responsibilities for urban sanitation, and the business model for execution, are now at a point of transition. Following the decline in service levels beginning in 2008, SPAN has taken the decision to revert to a model of scheduled desludging, for which IWK once again has direct responsibility, though with private sector participation encouraged. This reversion has been under discussion for a period of years, but only reached the point of legislation in May 2021. IWK's concession has recently been extended, until 2030.

3.2 The service jurisdiction of mandates should be complete and inclusive

Citywide Inclusive Sanitation requires that services are provided to everyone in the city, including the residents of informal settlements. Municipal/Utility services can be limited to older city administrative boundaries, missing new peri-urban settlements; while informal settlements may also be excluded, in some cases as a deliberate matter of government policy. In Burkina Faso, for example, the national utility ONEA is not authorized to directly provide services in informal settlements. Similarly in Brazil, provision of piped water and sewerage services to unauthorized favelas is reportedly considered illegal by the Public Prosecutor. Service provision to these settlements can have unique technical and economic challenges, which are explored in Section 4. But as a foundational step in ensuring universal access, informal settlements as well as peri-urban settlements must be explicitly included in the jurisdiction of the responsible institution.

There are multiple examples where informal settlements are encompassed in institutional responsibilities for urban sanitation. This may be explicit in national-level policy, for example in Kenya, where the Constitution details the universal right to water and sanitation; or it may be implicit, with institutions mandated to serve everyone within their jurisdiction — the implication being this includes informal settlements within the city boundaries.

3.3 Formal de jure mandates should match the actual de facto practice

It is critical that either the legally mandated service authority and the actual service provider are aligned, or where this is not case, that service provision is formally delegated. Our mapping identified cases where local government may have the formal mandate for emptying, but hand this over to a utility, without adequate definition of where responsibility lies, and with confused public perception of responsibility. This is seen for example in Malawi, where responsibility for urban sanitation has been formally transferred to utilities under the 2008 National Sanitation Policy, but local governments retain practical responsibility. Conversely in Burkina Faso, responsibility for water and sanitation was decentralized from the national water and sanitation utility ONAS to local governments from the 1990s, but while the local government in Ouagadougou is now nominally responsible for sanitation, in practice ONAS remains the lead agency. Discrepancies



Image: Pit emptying in Kanyama, Lusaka

between mandates on paper and in practice may alternatively be isolated to specific elements of the sanitation chain: for example in Dhaka, where City Corporations are responsible for treatment of fecal waste, as for the wider NSS service chain, but the only treatment currently being provided is by the utility DWASA (see Page 18).

A striking example of an authority deliberately reaching beyond its responsibilities is in Lusaka, where Lusaka Water & Sanitation Company have engaged the private sector to construct 5500 improved toilets (principally lined pit latrines) under the Lusaka Sanitation Project, to serve as demonstration facilities for household toilets in the city of Lusaka. This work has been done in collaboration with Lusaka City Council, and on the understanding that effective containment is essential to overcome localised technical challenges of pit emptying, and to properly support those elements of the sanitation service chain, from emptying onwards, for which LWSC is responsible³ — see Mandate Structure Type 2.

3 KII: Mwansa Nachula

Mandate Structure Type 2: Lusaka, Zambia



Lusaka is the capital city of Zambia, with an estimated population of 2.5 million. Under the auspices of the regulator NWASCO, the urban sanitation sector in Zambia is undergoing significant reform, with Commercial Utilities adopting responsibility for non-sewered sanitation. LWSC is leading the way in the execution of these expanded responsibilities in partnership with the private sector.

Who has the mandate in Lusaka?

Lusaka is an example of utility-led integrated responsibility for urban sanitation: the mandate for both sewerred and non-sewerred sanitation, for all residents within its jurisdiction, sits with Lusaka Water & Sanitation Company (LWSC). The legal basis for integration of responsibilities can be traced back to the 1997 Water Supply and Sanitation Act, and has recently been reinforced through the 2020 Water Supply and Sanitation Policy. Although LWSC has been involved in fecal waste emptying services for nearly 10 years — initially through delegated management arrangements with community-led Water Trusts — realisation of utility responsibility for NSS gained significant momentum in the past 5 years, supported by the development of NWASCO's framework for provision and regulation of urban on-site sanitation and FSM.

How are NSS mandates being executed?

Under the Lusaka Sanitation Project, a major World Bank and African Development Bank-led investment, LWSC has developed and operationalised a comprehensive service model for NSS. Responsibilities in this area are executed through licensing for septic tank emptying and performance-based contracts for the emptying of pit latrines, the dominant form of sanitation in Lusaka's peri-urban areas. A zonal model has been adopted, dividing the city into three zones, to promote efficiency and competition between providers. A dedicated FSM unit has been established within the utility, whose responsibilities include the verification of private sector contracts, which include scorecards with detailed key performance indicators. The utility currently subsidises the cost of emptying services, with a view to gradually increasing tariffs over time.

How are responsibilities now evolving?

According to existing legislation, responsibilities for NSS in Lusaka are clear. However, there is the potential for significant evolution in the service model for NSS service delivery, with LWSC presently considering a shift from on-demand to utility-led scheduled desludging. The foundations for this shift have been laid through the recent completion of citywide toilet database mapping. The toilet database can be integrated with the Lusaka Sanitation System — an integrated M&E system jointly developed and operationalised by LWSC, Lusaka City Council and Ministry of Health — enabling real-time availability of data on toilets requiring emptying.



Image: Resident using a newly constructed shared toilet, Maputo, Mozambique

4. Discussion

4.1 What are the key contributing factors for responsible authorities failing to execute their mandate?

Clear responsibilities provide the foundation for citywide inclusive service provision. But where responsibilities exist, this does not mean they are being executed. The factors contributing to failure of execution are complex and wide-ranging. They include both failures of accountability and failures of resource planning and management — issues which are explored in depth in parallel papers. Below is a summary of key findings in this area, based on the perspectives of informants, who highlighted specific overarching factors as contributing to the failure of mandated authorities to deliver their responsibilities for sanitation service provision.

Clarity of roles applies both outside and within the responsible authority. There is a need for greater understanding and greater support to responsible for authorities in identifying the institutional mechanism for delivering non-sewered sanitation. In many contexts we are seeing improved clarity of responsibilities for NSS; but city authorities may then find themselves with significant additional unfunded responsibilities, and without a clear institutional mechanism for execution. At a basic level, execution requires clarity on the roles of individual units and departments, with responsibilities clearly reflected in organograms.

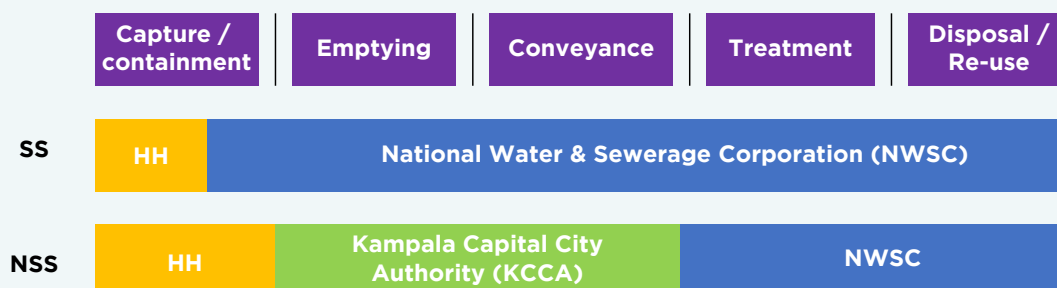
We see this lack in Dhaka, where the City Corporations are still to designate the unit that will coordinate FSM service delivery. Elsewhere in Bangladesh, formative steps *have* been taken — for example in Rangpur, where the City Corporation has made a formal commitment to establish a sanitation unit.

A further consideration is the effective staffing of departments with responsibility for non-sewered sanitation, to ensure these departments are populated by high-performers with the required technical specialisation. Even in situations where utilities with existing responsibilities for sewerage sanitation are adopting responsibility for non-sewered (see 4.2), new skills and knowledge on non-sewered sanitation will be needed, requiring internal restructuring to accommodate these new posts (AMCOW, 2021). Here the creation of a dedicated FSM unit by LWSC is instructive. The unit includes staff with a range of specialisms, including a Senior Sewerage Engineer, reflecting the connections with sewerage sanitation service provision in the city. The management structure includes representatives from both the Sewerage and Peri-Urban Departments of the utility. The link to the utility's Peri-Urban Department is viewed as essential, reflecting the particular social as well as technical challenges of extending services to low-income areas.⁴

⁴ KII: Mwansa Nachula

Mandate Structure Type 3: Kampala, Uganda

Sanitation Service Chain



Kampala is the capital city of Uganda, with an estimated population of 1.5 Million. Over the past 10 years Kampala Capital City Authority (KCCA) has taken significant steps to enact its mandate to provide NSS sanitation, including through the progressive formalisation of private sector desludging services.

Who has the mandate in Kampala?

Kampala is an example of split mandates for urban sanitation services provision. Responsibility for sewerage sanitation in Kampala and major towns in Uganda resides with the national utility, National Water & Sewerage Company (NWSC), under the NWSC Act (1995). NWSC also holds responsibility for connecting households to the sewer network, and for septage treatment and the safe disposal of fecal waste, which should be collected and transported to the treatment plants owned by NWSC. KCCA has a clear mandate to provide NSS services under the KCCA Act (2010) — including to informal settlements within the Kampala City Boundary. Households are responsible for constructing their own toilets and containment systems and for sourcing emptying services. There is some ambiguity over responsibility for disposal and re-use of treated sludge, where NWSC is legally responsible for treatment and disposal or re-use, although KCCA has invested in some pilots for in this space, like biogas systems in public institutions, and collaborated with partners on the design and management trials of a fecal sludge pre-treatment station at a large NWSC septage management facility. As a national government authority, the relevant KCCA directorates report to multiple line ministries on sanitation responsibilities, including the Ministry of Water & Environment and the Ministry of Health. KCCA is additionally responsible for solid waste management in the city.

How are NSS mandates being executed?

The private sector has a central and evolving role in the provision of fecal waste emptying services in Kampala. Although KCCA inspects and enforces minimum standards for NSS systems, on-demand licensed desludging and conveyance services are provided by the private sector. Historically KCCA has offered limited supervision of these services, which have been provided through a vibrant open market: a study in 2014 indicated almost 100 vacuum tank operators in Kampala, primarily focused on the more affluent areas of the city. Important steps have since been taken to formalise the market and strengthen the capacity of private sector desludging operators, with KCCA adopting an enhanced role in the support and regulation of these operators through PPP arrangements, enabling the authority greater oversight on service quality and pricing. KCCA is also increasingly engaged at the household level, through the enforcement of standards for institutional, commercial and household on-site sanitation facilities and some subsidized upgrading schemes that are required for the protection of public health and safe delivery of emptying services. KCCA has assigned public budget for staff positions, although the budget is currently insufficient to fill all posts.

How are responsibilities now evolving?

Responsibilities across all elements of the sanitation chain in Kampala were recently reviewed through the KCCA Sewerage and Fecal Sludge Management Ordinance, 2019. The Ordinance reflected the existing understanding of institutional responsibilities across the sanitation chain, but clarified the role of the private sector, establishing how and where they can participate in the sanitation service chain. The ordinance details licensing requirements for private sector operators, and minimum standards for emptying and conveyance of fecal sludge. Also significant is the development of the Kampala Sanitation Improvement and Financing Strategy, in which KCCA, NWSC and wider stakeholders participated in a collaborative process to define a shared vision for achieving citywide sanitation by 2030.

There is a lack of upwards and downwards accountability for executing mandates. As outlined in Section 2, responsibility for non-sewered sanitation has historically been placed with local governments (a contemporary example where the city authority has responsibilities for NSS is Kampala, Uganda — see Mandate Structure Type 3, page 15). The execution of these responsibilities is resource-intensive, technically demanding, and has often been interpreted promoting toilet construction, not as the delivery of safe services. In some contexts, the political motivation to overcome these constraints is lacking. There is a lack of upwards pressure from citizens, who may have internalised that sanitation is a household responsibility, and that deficiencies in service provision are ‘something they need to live with’; and a lack of downwards pressure from Ministries, who may share the assumptions about the limits of what local authorities can or should do in practice. Contributing factors may include short-term political incentives to prioritize high-visibility capex investments; risk aversion to or low awareness of how to invest in immediately improving services for the installed infrastructure actively used by most of the city; lack of awareness of viable alternatives to waterborne sanitation; and households’ relatively low visibility of on-site sanitation service needs. In some contexts, households will only become aware of the issue when their septic tank becomes blocked or their pit is full. These dynamics are now shifting in some countries, supported by the advance of NSS regulation to drive accountability.

4.2 What challenges (if any) do split mandates present to citywide inclusive service provision?

As outlined In Section 2, responsibilities for sewered and non-sewered sanitation are frequently divided between the utility and local government. The situation seen in Bangladesh is one example, with subnational utilities (Water and Sanitation Authorities, WASAs) historically responsible for SS where this exists, and local government (City Corporations) responsible NSS

— see Mandate Structure Type 4, page 18. This separation can be a valid solution in some contexts. For example, if sewerage is being introduced in a city in which local government already deals with non-sewered sanitation and solid waste management, the local government may be best positioned to retain the non-sewered service mandate. But split mandates may also complicate effective and equitable citywide sanitation planning and investment, if two distinct authorities are involved, likely with different line ministries, political priorities, and resource levels. In these instances, it is critically important for accountability that mandates do not overlap, and that the precise division of roles — especially at the interface of role transitions — is clear. For example, are small-scale local sewerage networks considered “sewered” or “non-sewered”? Is a single entity responsible for treatment of both sewage and sludge? Is the removal of solid waste from collected sludge considered to be a treatment activity or an emptying and conveyance activity?

In Eastern and Southern Africa we can now observe a shift taking place, away from split mandates and towards placing responsibility for service outcomes with the utility, removing infrastructure-dictated fragmentation. We see this evolution in **Zambia**, where NWASCO has expanded the licensing terms for utilities to include responsibility for non-sewered sanitation (in addition to their existing mandate for sewered sanitation), as part of major sector reforms aimed at rationalizing institutional responsibilities in line with the 1997 Water Supply & Sanitation Act. In **Rwanda**, the regulator RURA is in the process of finalising new guidelines, resulting from a process of consultation with key institutional stakeholders, and placing full responsibility for NSS with the utility WASAC. In both Zambia and Rwanda, it is important to note these actions do not represent a legal change, but are aimed at compliance, ensuring that de facto and de jure responsibilities for urban sanitation align. **Tanzania** expanded utilities’ mandates to address sanitation needs irrespective of sanitation technology used, under

“Until 10 years ago the split (between NWSC and KCCA) was not working as it should have. This was until the city leadership decided to take more responsibility for sanitation in the city. Before that it was left to the utility, and investments were more on the sewered side of things. But since KCCA took more responsibility for NSS, we are seeing that model working better — we are seeing big strides being made”.

Allan Nkurunziza, KCCA.

the 2019 Water and Sanitation Act. And in **Kenya**, where expanding utilities' mandates is allowable under decentralization, counties are increasingly assigning utilities the responsibility for NSS and SS. We also see examples of this shift in Latin America, for example in Colombia, where utilities are increasingly adopting additional responsibility for non-sewered sanitation. In Malaysia, responsibilities have been integrated since the 1990s — a shift that was cultivated over time, and is now viewed as the right approach in the Malaysian context.⁵

Consideration of this integrated approach is recommended in the African Sanitation Policy Guidelines, where feasible,⁶ and in the ESAWAS Regulation Strategy and Framework for Inclusive Urban Sanitation Service Provision.⁷ There is growing understanding and support among public officials and development partners for consolidating and assigning responsibility for service outcomes to a single authority.

Where this shift is taking place, utilities are still in the early stages of execution. We are not yet able to point to examples where utility adoption of NSS responsibility has resulted in marked improvements in sanitation access, with the exception of Lusaka. Here contractors working in low-income communities are rapidly professionalizing and seeing gains in efficiency and safety of services, subsidized by an approved environmental service fee earmarked to make services more affordable for the poorest, while a large-scale toilet upgrading program has upgraded the containment of 4,000 facilities.

Multiple respondents expressed the view that “municipalities have failed” in executing their responsibilities for NSS, leading to a situation where NSS continues to be neglected, and sewerage sanitation continues to be prioritised and regressively subsidised. Arguments cited by informants in favour of integrated responsibilities include the following:

- Split mandates can exacerbate the risk of disproportionate allocation of resources to sewerage sanitation, which offers limited service coverage and rarely benefits those most vulnerable to elevated service costs and public health risks. This is particularly the case where sewerage sanitation is synonymous with public sector services, but alternative approaches are a priori assumed

to be the domain of the private sector independent of public service systems.

- Where local governments hold the mandate for NSS, this is only one of many services they are required to coordinate. For NSS to receive due priority, it is more sensibly placed with a utility with a concise mandate and existing technical specialization in water and sanitation.
- Split mandates can undermine public understanding of who is responsible for what, resulting in a situation where mandated institutions can lay the blame elsewhere for service failures and dilapidated infrastructure, undermining accountability.⁸
- While evidently a public good, sanitation is also a customer service. Customer retail uptake of formal fecal waste emptying services, for example, cannot be assumed and is often not the most cost-effective or safe way to organize services. Utilities may be better positioned than municipalities to adopt the customer-oriented mindset required to coordinate high-quality sanitation service provision, drive demand, optimise efficiency, and monitor private sector activities.
- The technical requirements of fecal sludge treatment mean that responsibilities in this area are more sensibly placed with a utility, where one exists, who is likely to already hold responsibility for wastewater treatment.⁹
- Integration can assist the formation of effective regulatory structures — regulators arguably have more leverage over semi-commercialised utilities than over municipalities.¹⁰
- Integration can help to facilitate the introduction of cross-subsidies from sewerage to non-sewered sanitation services, promoting equity and helping to address challenges of affordability of NSS services in low-income areas.¹¹

5 KII: Punita Nook Naidu

6 “In urban areas, if an economically stable and technically competent water utility exists, economies of scope and scale can be achieved by also mandating it to manage sanitation” (AMCOW, 2021)

7 “Where an adequately performing utility company exists, consideration should be given to extending its mandate to cover both sewerage and non-sewered sanitation” (ESAWAS, 2019)

8 KII: Tariq Bin Yousef

9 KII: Richard Franceys

10 KII: Richard Franceys

11 KII: Chola Mbilima

Mandate Structure Type 4: Dhaka, Bangladesh

Sanitation Service Chain



Dhaka is the capital city of Bangladesh and one of the world's megacities, with an estimated population of 15 million, 80% of whom are dependent on NSS systems. Responsibilities for urban sanitation were recently clarified through the development of the Institutional and Regulatory Framework for Fecal Sludge Management (IRF – FSM), which made explicit City Corporation responsibility for FSM. However, execution of these responsibilities is at a formative stage.

Who has the mandate in Dhaka?

Dhaka is an example of split mandates for urban sanitation services provision. Responsibility for sewered sanitation resides with the utility, Dhaka Water Supply & Sewerage Authority, under the Water Supply and Sewerage Authority Act 1996. Responsibility for FSM, in areas within their jurisdiction, resides with the city's two city corporations: Dhaka North (DNCC) and Dhaka South (DSCC). City Corporation responsibility for NSS can be traced back to the City Corporation Act 2009, although the document did not explicitly refer to "fecal sludge" but rather to accumulated "refuse". The IRF-FSM for Dhaka lays to rest this ambiguity, clearly placing responsibility for planning and implementation of FSM services with the City Corporations, including "proper execution of the entire FSM service chain". The City Corporations are answerable to the Ministry of Local Government, Rural Development and Co-operatives (MoLGRDC), while DWASA has a technical assistance role in FSM services provision. City Corporations also hold responsibility for solid waste management, which it delegates to the private sector; and have recently adopted responsibility for drainage — an enormous challenge in Dhaka, where it is common practice for households to connect pour-flush toilets directly to drains.

How are NSS mandates being executed?

The adoption of responsibility across the non-sewered sanitation chain, in a city of Dhaka's size and complexity, is a huge undertaking. The City Corporations are yet to meaningfully execute their mandate for NSS services, or to establish the institutional mechanism through which city-level FSM services will be delivered. Support will be required from MoLGRDC to assist the City Corporations in progressive implementation. For example, the IRF-FSM stipulates the MoLGRDC will take steps to establish a Unit or Division for FSM within the City Corporation organogram. It is envisaged that City Corporations will collaborate with the private sector to execute, but for the time-being, there is a disconnect between responsibilities on paper and in practice: formalised private sector desludging services currently being provided in Dhaka are coordinated through DWASA, who also has effective oversight of treatment.

How are responsibilities now evolving?

The IRF-FSM provides the blueprint for urban sanitation in Dhaka moving forward. However, it will take time for the City Corporations to absorb the requirements of these expanded responsibilities and achieve a state of readiness for implementation. The development of a bespoke IRF for Dhaka, distinct from the national-level IRF developed for Paurashavas, reflects the unique dynamics in Dhaka — currently the only city in Bangladesh with a sewer network. A first step is the development of a National Action Plan for implementation of the IRF in Dhaka, equivalent to the plans developed for IRF implementation in rural areas and Paurashavas. Elsewhere in Bangladesh, the creation of several additional utilities or WASAs in other large cities has unlocked finance for sewer investments, but city authorities have struggled to integrate planning and finance decisions to best advance citywide service outcomes. It remains to be seen if the law and IRF will eventually adapt to give WASAs a service outcome mandate, or if cities might even eventually delegate their mandate to WASAs as hired service providers.

Although the arguments in favour of integrated responsibilities for urban sanitation are clearly strong, this solution may not be applicable to all contexts. As reflected in the AMCOW guidelines, the model may be particularly well-suited to contexts where there are city or regional-level utilities with existing responsibility for SS (AMCOW, 2021). The model may be further suited where a stand-alone regulator is present to assist a long-term transition process and drive accountability, as is the case in Kenya and Zambia. Where there are no utilities or SS plans, it is certainly possible for municipal authorities to drive improvements in NSS, where the political leadership and drivers exists (indeed, the combination of non-sewered sanitation with solid waste management, typically provided by local governments, may open similar possibilities of economies of scope and scale, and of cross-subsidy (AMCOW, 2021)). Furthermore, for municipalities to make progress in sanitation service systems, professional staff must be in place, revenue and budget must be availed and ringfenced, and an authority above the municipality must be able to set and monitor performance against goals. Political will, data system and transparency and other complementary factors also play important roles across all approaches.

4.3 What is the private sector's role in supporting execution of mandates?

The private sector has a role to play across the urban sanitation chain, including the construction of toilet facilities, providing emptying services, and managing and investing in public infrastructure, such as fecal sludge treatment. The central importance of public-private collaboration is reflected in the African Sanitation Policy Guidelines, which note that *“by unlocking the potential of the private sector to work alongside the public sector, progress will be faster...however, the private sector needs to be engaged appropriately, overseen responsibly, and motivated according to clear principles”* (AMCOW, 2021); and in the development of national-level policies, for example the Zambia Water Supply and Sanitation Policy (2020), which notes *“the private sector is encouraged to bring efficiencies and capital investment through public-private arrangements”* (MWDSEP, 2020).

In countries where mandates for urban sanitation have recently been revised, consideration has been given to the role of the private sector in supporting the responsible authority to execute. The private sector is seen as having a critical role to play in

the provision of fecal waste emptying services in particular, irrespective of whether the lead institution is a utility or local government. In Rwanda for example, the 2016 National Sanitation Policy specifies the requirement for a “public service” to provide safe transportation and treatment of fecal waste, clarifying *“such “public services” can be provided by public utilities or the private sector. In this case, the public sector must regulate the activities of the private sector”* (MOI, 2016).

In line with these policies, it is important to emphasise that clarification of public service approach and mandate does not imply full public sector service provision. In fact, a well-structured public sector approach and strong public authority *enables* the private sector to invest in expanded, more efficient and higher-quality services. Responsible city-level authorities may adopt a range of service models with varying degrees of private sector participation: they may facilitate service provision directly (as in Malaysia), or through the management of an open market (as in Kampala).

The progressive formalisation of the private sector — bringing existing Vacuum Tank Operators (VTOs) and manual emptiers into the fold and raising standards through the development and enforcement of guidelines, licensing and service provider certification — is now underway in locations across Eastern and Southern Africa. The 2019 Sewerage and Fecal Sludge Management Ordinance (Kampala) is a strong example, clarifying the requirements for licensing of service providers to be executed by the government authority KCCA.¹² In other locations, formal private sector engagement is advancing but remains at a formative stage (for example Maputo – See Mandate Structure Type 5, Page 20).

The business model through which the private sector is engaged in emptying services is variable, and poorly defined in some locations. Kampala and Lusaka provide useful examples: in both locations a zoning model has been applied, where private operators are licensed to operate in a defined area of the city. The model is designed to guarantee the market for respective operators, helping to ensure the commercial viability of the business. At the national level, the model in Zambia recognises there is “no one-size fits all business model” — Commercial Utilities are encouraged by the regulator NWASCO to develop their own plans of engagement with the private sector.¹³

¹² Guidance on outsourcing fecal sludge emptying and transportation is provided in the ESAWAS Guidelines for Inclusive Sanitation Service Provision (ESAWAS, 2020)

¹³ KII: Chola Mbilima

Mandate Structure Type 5: Maputo, Mozambique



Who has the mandate in Maputo?

Maputo is an example of municipal-led integrated responsibilities for SS and NSS. Key sector policies and strategies, including the National Urban Water and Sanitation Strategy (Estratégia Nacional de Água e Saneamento Urbano, ENASU) (2011-2025) charge municipal councils with instituting a comprehensive approach to managing all elements of the sanitation service chain. In Maputo, this makes Conselho Municipal de Maputo (CMM) the mandate holder for sanitation. These responsibilities can be further traced back to the 1997 Local Government framework laws and associated regulations, which charge municipal authorities with responsibility for sanitation service provision, including environmental management of liquid waste and associated sanitation facilities (World Bank, 2019). CMM is also responsible for ensuring the standards of containment structures at household level.

How are NSS mandates being executed?

Historically CMM has lacked the resources to fully implement its sanitation mandate. Desludging services have largely been left to informal private sector operators, who engage directly with households in Maputo's low-income communities. Since 2013, formal desludging services have been piloted in these areas. A small number of vacuum tank operators are licensed by the municipality to provide desludging services, and to dispose of fecal waste at the sewerage treatment plant at Infulene, which is owned and run by the municipality. CMM has also taken steps in supporting the provision of improved shared sanitation facilities in the low-income communities of Maputo (see WSUP 2018).

How are responsibilities now evolving?

A number of recent developments are expected to support clarification and execution of responsibilities for NSS in Maputo. These include enhanced accountability through the recent evolution in the regulator's mandate (reflected in the change of title from CRA to AURA, IP): as of February 2019 the regulator's mandate was extended to include FSM services, where previously limited to conventional sanitation systems. The World Bank's Mozambique Urban Sanitation Project will finance the rehabilitation of the Infulene wastewater treatment plant, including improved capacity to manage and treat fecal sludge, positioning CMM to better execute its mandate for the back-end of the sanitation service chain. Finally, discussions have been ongoing to introduce a sanitation tariff in Maputo, signed into law in 2017. While still to be implemented, the process of developing the tariff has itself been of huge value, requiring detailed discussions around responsibilities — including through the definition of eligible services and KPIs for CMM to report against in delivering service improvements supported by surcharge revenues (see WSUP 2019).

“We decided that rather than burying our heads in the sand, thinking we shouldn’t engage with these low-income areas, we will try and do the best we can while we sort out the planning and regulatory aspects of it. And that’s what we are seeing now: the vision for sanitation in Kampala reflects the need to uplift these areas of the city”.

Allan Nkurunziza, KCCA.

4.4 What are the key issues in relation to responsibility and serving the poorest?

The prioritization of the right of all to sanitation, with inclusive strategies reaching informal settlements and vulnerable populations, is at the core of Citywide Inclusive Sanitation. A CWIS starting principle is for legal mandates to be “based on planning principles, without restrictions based on land tenure, hardware type, or local political boundaries” (Schrecongost et al, 2020).

Clear responsibilities for serving the poorest begin at the Constitutional level, with explicit formal recognition of the human right to water and sanitation. In Kenya, for example, the human right to water and sanitation is explicitly recognised in the Constitution. This naturally cascades into high-level legislation and development strategies, into lower-level policies, strategies, frameworks and plans, and into the attitudes and language of decision-makers (WSUP Advisory, 2020). In Rwanda, responsibilities for urban sanitation provision sit with the utility WASAC and are nationwide, including informal settlements.

At the city level, the definition of city boundaries is key to inclusive mandates. Responsibilities for urban sanitation service provision may include *all residents* within the authority’s jurisdiction; but defined service areas must be connected to urban planning processes, monitored and reviewed to ensure responsibilities keep pace with urban expansion and the development of new settlements, formal or informal.

Prospects for executing responsibilities in informal settlements are connected to wider urban development agendas. In the words of one informant, “*we default to focusing on sanitation as opposed to integrated development. Sanitation is one part of it, but it’s part of a much bigger picture that shapes how and when developments occur*”.¹⁴ Here emerging experience from Nairobi is instructive, where the



Image: Learning visit to drying beds, Lusaka

responsible authority for sewerage service provision, Nairobi City Water & Sewerage Company, is piloting simplified sewers as a tailored solution for low-income residents in the informal settlement of Mukuru. The activity is one part of a wider Integrated Development Plan for the settlement, developed through a participatory planning process led by Nairobi City County, and involving consultation with over 100,000 households. Major slum upgrading initiatives of this type provide a unique window of opportunity for the responsible authority to drive forward the comprehensive improvements required to achieve citywide inclusive sanitation, in close collaboration with other city-level authorities, and extending beyond NSS to include urban drainage and solid waste management.

A number of authorities are proactively engaging to address the specific challenges of sanitation service provision to informal settlements. In addition to Nairobi, we see this in Lusaka, where LWSC has supported the provision of fecal waste emptying services to peri-urban areas under delegated management arrangements since 2013. Initially, LWSC engaged in pilot project collaborations with Water Trusts (community-based organisations) in two peri-urban areas. With the formal shift of LWSC’s mandate to be defined by outcomes over hardware, they drew on their pilot experiences, benefitted from funding to engage and innovate, and subsequently expanded to

coordinate FSM services across the city. The Lusaka experience demonstrates some of the technical challenges that can rise in coordinating on-site services to existing infrastructure. In Lusaka, widespread dumping of solid waste in pit latrines makes emptying service provision inefficient and unsafe for emptiers, also increasing costs to the point of unaffordability for low-income households. Latrine upgrades and septic tanks, in the context of a high water-table, pose a threat to groundwater. The utility is responding proactively to these challenges, investing beyond its direct remit to support the provision of improved containment structures, justified by the benefits to the utility being able to achieve its overall Key Performance Indicators (KPIs) of safely managed sanitation service coverage. Progress is incomplete, but already represents a significant shift.

In this case LWSC could only move beyond pilot projects because of a shift in mandate, its funded and staffed FSM department that is driven to perform against clear and inclusive KPI targets, a performance-contingent revenue stream approved by the regulator to invest in services for the poorest, and donor supported technical assistance for the utility's transition period from its sewer to sanitation mandate. In Kampala, the city has mobilized and directed significant development partner funding to improving sanitation in informal settlements, but broader institutional changes to sustain this progress has proven more difficult.

In other locations, complex political dynamics, and the perceived temporary nature of informal settlements, act as powerful disincentives for engagement. We see this situation in Dhaka, where City Corporations facilitate the work of NGOs in the city's low-income communities (LICs), but do not engage directly in sanitation service provision,¹⁵ with small-scale infrastructure development in these areas left to NGOs. A further significant challenge is urban drainage, which is intrinsically connected to sanitation, but which is often treated separately. Poor drainage can exacerbate flood risk and contribute to the overflow of sanitation facilities. In Dhaka, we also see the widespread practice of septic tank discharge directly to open drains. This publication has focused on responsibilities for sewered and non-sewered sanitation, in line with the core focus of wider CWIS documentation, but the integration and coordination of responsibilities for drainage unquestionably requires greater attention. .

A key challenge for execution is how to support and incentivise the private sector to offer fecal waste emptying services in informal settlements. Formal emptying services are generally expensive and unsafe to deliver, and unaffordable for the poorest residents, who are likely to be either unwilling or unable to pay the market price for fecal waste emptying services (Delaire et al, 2020). There are interesting examples of authorities taking measures to bridge the financing gap and incentivise private sector provision to these areas. In Kampala, KCCA has project funding to test benefits of offering emptying service subsidies on a quarterly basis to low-income households. In Dhaka, Bangladesh, under the WSUP-designed SWEEP model, licensed providers are contractually required to maintain 30% of their customer base from Dhaka's densely populated LICs, with services to these households cross-subsidised through higher rates to middle-income and institutional customers. In an example of discrepancies between *de facto* and *de jure* responsibilities, the public partner for the lease-based arrangement is currently the utility DWASA, not the responsible institution for NSS, Dhaka North City Corporation.

In Lusaka, a number of important steps have been taken to support private sector provision to low-income households. Performance-based contracts have been established between LWSC and emptiers to provide services in delegated management areas that target low-income households. The regulator NWASCO has approved a cross-subsidy revenue model, to help keep prices affordable for households while maintaining financial viability for emptiers. The utility has provided subsidy and finance to emptiers to improve worker conditions and service efficiency, including the purchase of a second fleet of emptying barrels. And LWSC has created a lease-to-own vacuum truck program, to give emptiers rapid access to new vacuum trucks at affordable financing rates. These interventions are accelerating the utility's service coverage progress, bringing down the cost of emptying in LICs, and reducing the need for continued service subsidies in the long run.

Where feasible, scheduled desludging provides a route to overcoming some of the barriers to serving the poorest. Malaysia, where this model has been implemented, is not subject to the same financing challenges encountered in other contexts, and has higher septic tank coverage (as opposed to pit latrines, where filling rates are more variable). This means lessons must be carefully drawn — but the Malaysian experience may nonetheless be instructive, demonstrating that even where

¹⁵ KII: Tariq Bin Yousef.

“In the context of clarifying responsibilities, the process of convening stakeholders to develop dialogue, enhance coordination and strengthen information flows is fundamental”.

poorly enforced, scheduled desludging is likely to result in increased levels of service provision. Rwanda is considering the introduction of scheduled desludging, part-financed through water bills.¹⁶ While if LWSC follows through on plans to implement a shift to this model in Lusaka, the results will be of great interest to other cities in the region.

4.5 How does responsibility relate to accountability and resource planning and management?

In Section 1 we outlined the three core functions of Citywide Inclusive Sanitation: Responsibilities, Accountability and Resource Planning and Management. The scope of this paper is constrained to Responsibilities. But we absolutely recognise that in practice the three functions are closely interlinked: clear responsibilities are a pre-requisite if accountability mechanisms are to be effective; and responsibilities cannot be fully executed unless the resourcing mechanisms are in place. In its broader sense, then, responsibility in public service provision can be understood to underpin both accountability and financing: a public service provider can only be held accountable if it has a mandate clearly defined in law, and if it receives sufficient public finance to support delivery of that mandate.

We explore these wider issues of Accountability and Resource Planning and Management in dedicated parallel papers which complete this series. Below we share two key observations relating to the interplay between Responsibilities and the other two functions:

The question of “who has the mandate” is only the first of several to ask in defining the responsibility function within a public service approach. Currently, sanitation mandates (whether clear or not clear) often lack associated accountability or financing mechanisms to incentivize implementation. For example, performance targets can be unclear, not monitored, or decoupled from penalties. National-to-local government decentralization of responsibilities commonly occurs without transfer of the requisite financing. Depending on the level of fiscal autonomy, local governments may be able to supplement transfers through own-revenue generation, although these amounts are generally insufficient to establish



Image: Manual emptying of pit latrine in Khulna, Bangladesh

service systems and associated infrastructure. The resourcing gap has obvious implications for accountability: it is impossible to hold mandated actors to account, in any meaningful sense, if they have inadequate funds and limited practical autonomy to drive service improvements.

A striking development in Eastern and Southern Africa has been the role of regulators in extending beyond their accountability function to lead processes of revision and clarification of responsibilities.

In Maputo, the planned introduction of a sanitation tariff necessitated a process of reflection which laid bare the overlapping mandates between the regulator and municipality. In Lusaka, NWASCO has driven the consolidation of NSS responsibilities with Commercial Utilities, supported by the publication of the regulatory framework for urban OSS and FSM in 2018. In Rwanda, RURA is leading a fundamental realignment of NSS responsibilities. While in Kenya, WASREB continues to be hugely influential in driving sector change. In the context of clarifying responsibilities, the process of convening stakeholders to develop dialogue, enhance coordination and strengthen information flows is fundamental. Emerging experience suggests that no-one is better positioned to perform this function than a regulator.

¹⁶ For analysis of the market of pit emptying services in Kigali, see Burt et al (2019). *International Journal of Environmental Research and Public Health*



Image: Open drain in Chittagong, Bangladesh. Credit: Green Ink

5. Conclusions

In this section we synthesise study findings into core conclusions. We distinguish between key conclusions relating to the *definition* and *execution* of responsibilities for urban sanitation. Before outlining these conclusions, we reiterate two key messages of this paper:

Non-sewered sanitation must be organized with a public service approach and facilitated by a mandated service authority to advance citywide inclusive service provision.

The global mapping of mandate structures indicates a growing acknowledgement of this reality. A number of countries are starting to invest in policy reforms and implementation. Some countries have updated policies and investment plans to create systems that incentivize safe, inclusive service outcomes; that better address needs in expanding urban areas; and that move substantially towards SDG commitments to inclusivity. Leading recent examples include Zambia, through the formulation of the 2020 Water Supply and Sanitation Policy; Tanzania, through the 2019 Water and Sanitation Act; and Rwanda, through the dedicated National Sanitation Policy of 2016.

Significant progress can be achieved through active processes of review and reform to rationalize responsibilities for urban sanitation. Mandates are not static: they can and are being revised. Some countries are actively reviewing responsibilities for urban sanitation, addressing challenges by improving clarity. In Bangladesh, for example, the National

Action Plan for the Institutional & Regulatory Framework for FSM has established a Coordinating Committee to support role clarification and to coordinate planning and investment across responsible authorities. A number of countries are actively adjusting the scope of utility mandates to include non-sewered sanitation (see below).

5.1 Defining responsibilities

Below we set out four key findings from the study relating to the definition of the responsibilities and the design of mandate structures for urban sanitation. These findings can be kept in mind by policy-makers within Ministries, city-level decision-makers and other sector professionals engaged in processes of sector reform and the definition or revision of responsibilities for urban sanitation.

Mandates must provide clarity on who is responsible for ensuring different elements of the sanitation service chain. Historically, mandates for non-sewered sanitation have been poorly delineated: one or more entities may have some loosely defined “responsibility” for elements of the chain, but without real clarity. However, a shift can be observed in the SDG era, with policies now more likely to address the service chain comprehensively. In the context of clarifying responsibilities at every step in the chain, service chain boundaries require particular attention: for example, a key question that arises is the boundary between household

responsibility for capture and institutional responsibility for emptying.

Formal legal mandates and actual practice must be aligned. It is critical that either the legally mandated service authority and the actual service provider are aligned, or where this is not the case, that service provision is formally delegated. For example, the global mapping identified cases where local government may have the formal mandate for emptying, but hand this over to a utility, without adequate definition of where responsibility lies, and with confused public perception of responsibility. Discrepancies between mandates on paper and in practice may alternatively be isolated to specific elements of the sanitation chain.

Responsibilities for sewered and non-sewered sanitation should be integrated where feasible. There are strong arguments in favour of consolidating and assigning responsibility for service outcomes to a single authority, and growing support for this approach among public officials. In Eastern and Southern Africa a shift is taking place, away from split mandates and towards placing responsibility for service outcomes with the utility, where there is one. Consideration of this integrated approach is recommended in the African Sanitation Policy Guidelines; and in the ESAWAS Regulation Strategy and Framework for Inclusive Urban Sanitation Service Provision. This shift can also be observed in other regions, for example in Latin America in Columbia, where utilities are increasingly adopting additional responsibility for non-sewered sanitation.

The service jurisdiction of mandates must include informal settlements. Clear responsibilities for serving the poorest begin at the Constitutional level, with explicit formal recognition of the human right to water and sanitation, as seen in Kenya for example. At the city level, the definition of city boundaries is key to inclusive mandates. Serving the poorest can be practically supported by connecting sanitation to wider slum upgrading and urban development agendas; and through the creation of incentives for private sector engagement with informal settlements.

5.2 Executing responsibilities

The reasons for mandated authorities failing to execute their mandates are complex and wide-ranging. For example, a key constraint is lack of financing mechanisms to incentivize implementation — an issue which we explore in depth in our parallel paper in this series on Resource Planning and Management. Below we present three observations arising from the global mapping and key-informant interviews conducted to inform this study.

There is a need for enhanced focus on the institutional mechanisms for sanitation service delivery. Clarity of roles applies both *outside* and *within* the responsible authority. The execution of revised mandates requires a long-term process of adjustment and institutional reform. To support this process, there is a need for continued engagement with and support to responsible authorities from line ministries and regulators. The existence of specific staff positions for sanitation, dedicated budget allocation for sanitation, and sanitation service data are all potentially strong indicators of an authority *executing* its mandate.

Clarification of public service mandate does not necessarily imply full public sector service provision. In countries where mandates for urban sanitation have recently been revised, consideration has been given to the role of the private sector in supporting the responsible authority to execute. The progressive formalisation of the private sector — bringing existing Vacuum Tank Operators (VTOs) and manual emptiers into the fold, and raising standards through the development and enforcement of guidelines, licensing and service provider certification — is now underway in locations across Eastern and Southern Africa, with Lusaka and Kampala notable examples.

The execution of mandates requires upwards and downwards accountability. Currently in many contexts there is a lack of upwards pressure from citizens, who may have internalised that non-sewered sanitation is a household responsibility. And there is a lack of downwards pressure from Ministries, who may share the assumptions about the limits of what local authorities can or should do in practice.

In the context of clarifying responsibilities, the process of convening stakeholders to develop dialogue, enhance coordination and strengthen information flows is fundamental. Emerging experience suggests that no-one is better positioned to perform this function than a regulator.

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