

# Citywide Inclusive Sanitation: How can accountability be strengthened?



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Cover image: Shared toilet in Nakuru, Kenya.





Image: Community consultation in Dhaka, Bangladesh

# 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** (Figure 1). Responsibility defines

what entity has a mandate to deliver a service. Accountability mechanisms are then required to make sure that mandated responsibilities are fulfilled. Effective resource planning and management are required so 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 (ESAWAS 2021).

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 technologies) 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. 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 necessarily imply that the public sector must deliver services directly. The private sector can play key roles within a publicly managed system (whether through direct contracting, or indirect “enabling”). In fact, a well-structured and regulated sector can increase business opportunity and incentivize innovation to meet health and inclusivity goals.

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 accountability.

In our complementary short publication, we gave a brief initial overview of accountability in the context of Citywide Inclusive Sanitation. We noted that accountability requires three things: **a)** that mandated entities have clear performance objectives; **b)** that mechanisms are in place to establish rigorous monitoring of performance against those objectives; and **c)** that tracking outcomes translate into consequences (positive incentives or negative penalties) for mandated entities. We focused on accountability mechanisms acting on mandated service authorities: typically a national utility, a subnational utility, or local government. In some cases the mandated service authority may have responsibility for both sewerred and non-sewerred sanitation; but more commonly, the mandate is “split” (e.g., national utility has responsibility for sewerred sanitation, local government has responsibility for non-sewerred sanitation).

In this publication, these issues are explored in greater depth, drawing particularly on the experience of eight countries: Bangladesh, Brazil, Malaysia, Rwanda, Senegal, South Africa, Uganda and Zambia. The respondents interviewed are detailed in Appendix 1.

## 1.2 What do we mean by the term “accountability”?

In the context of public service provision, accountability can centrally be understood as answerability: if a public agency is charged by government with providing a given service, then that public entity needs to be “held to account” and made answerable for providing that service in an efficient, effective, sustainable, and equitable way. A more formal definition is given by Paul (1991): accountability is “*the spectrum of approaches, mechanisms and practices used by the stakeholders concerned with public services to ensure a desired level and type of performance*”. In fact, accountability is not easily separated from “responsibility” and “resourcing”. A report from the World Bank (2004) suggests that there are five requirements for accountable service provision by governments: delegation, financing, performance, information about performance, and enforceability. Somewhat related to this, Heller (2018) – then UN Special Rapporteur on the human rights to drinking water and sanitation – proposed that accountability has three requirements: actors involved in provision and regulation of water and sanitation services must have clearly defined duties and responsibilities and performance standards (“responsibility”); actors must be answerable to affected people and groups for their actions and decisions, which includes access to information in a transparent manner (“answerability”); and mechanisms should be in place that monitor actors’ compliance with established standards, impose sanctions and ensure that corrective and remedial action are taken (“enforceability”).

In its broader sense, then, the concept of “accountability” in public service provision can be understood to encompass both responsibility (clear mandates) and financing: in simple terms, 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.

For the purposes of this publication series, we have separated these broad requirements for accountable public service delivery into three components, each covered in a separate paper: *responsibility* (clear mandates); *accountability* more narrowly defined (how can stakeholders confirm that mandated service providers are fulfilling their mandate to the best possible extent?); and *resource planning and management* (how can stakeholders confirm that service providers are receiving the finance required to fulfil their mandate?). It is important to note that mechanisms to achieve accountability are not limited to formal administrative mechanisms (like regulatory performance tracking); additionally, accountability can be achieved in various other ways, as detailed in Sections 2.3 to 2.8.

### 1.3 Who exactly is to be held accountable, by whom, for what, and how?

In this paper we focus centrally on the accountability of mandated service authorities (a national utility, subnational utilities, or local governments) for delivering safe, inclusive urban sanitation services. But this central focus needs to be understood in a wider context, as detailed in the six points below.

**1) The ultimate responsibility lies with national government.** It is centrally important to note that the responsibility and accountability of a mandated service provider (a utility, for example) is subsidiary to the higher-level responsibility and accountability of government. Historically, in most countries, responsibility for urban sanitation lay with central government through local governments. Over recent decades, many countries have seen the creation of corporatized utilities, to whom responsibility has been delegated. But although national government may delegate responsibility to a utility or utilities (public, quasi-public, or private) or to municipalities, the ultimate responsibility for ensuring the human right to sanitation remains with national government.<sup>1</sup> This is critically important to bear in mind, since a key reason for non-fulfilment of mandate by a utility or municipality may be lack of funding and other support from central government.

### 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.

**2) Mandated service authorities may not provide services directly.** Mandated service authorities may a) deliver services directly; or they may b) contractually delegate service provision to lower-level or private sector actors; or they may c) delegate without contracting, simply creating an enabling environment. For example, desludging services may be provided directly by a utility or municipality; or the utility/municipality may subcontract private operators; or the utility/municipality may simply aim to create an enabling environment that incentivizes private operators to deliver services (possibly alongside financing mechanisms designed to guarantee affordability, such as desludging cost subsidies for low-income households). Whether a mandated service authority is mandated to provide services (directly or through subcontracting), or simply to “ensure” services through enabling, depends on the precise nature of the mandate, and this needs to be clear in the legislation. It is important to stress that simply creating an enabling environment for private operators cannot be considered delivery of a public service (see further discussion in Section 4).

### Box 1. Mandated service authority versus service provider

We here define “mandated service authority” as the entity (typically a utility or a municipality) mandated with *ensuring* services: the mandated service authority may or may not be the direct *provider* of services. This important distinction is explored further in the text, including in Bullet 2 above. Importantly, a mandated service authority may simply transfer responsibility to the private sector (through creation of an “enabling environment” and through licensing mechanisms): but without direct *contracting* of private operators, it is questionable whether this is sufficient to achieve Citywide Inclusive Sanitation.

<sup>1</sup> Indeed, where a nation is too poor to provide safe sanitation to all its citizens, this responsibility might (ethically, if not legally) be considered to extend beyond national government to wealthier governments or wealthy corporations and individuals globally.

**3) Mandated service authorities are subject to other types of accountability and compliance requirements, not just accountability for service provision.** For example, a utility is required to demonstrate compliance with regulatory requirements around (for example) hiring and book-keeping, and also to demonstrate financial probity through audit of its accounts, and to adhere to national labor legislation in its treatment of its employees. These requirements are not specific to compliance with the mandated service obligation and corresponding tariff requirements, and are not the central focus of this paper.<sup>2</sup>

**4) Accountability for some components of the sanitation service chain may rest with other actors, not the mandated service authority.** This depends on the precise nature of the formal mandate. Most importantly, the responsibility and accountability for safe containment typically rests with the property owner, governed by building regulations and environmental bylaws. In relation to this, the mechanisms for achieving accountability may differ between sewered and non-sewered sanitation, and at different points along the sanitation service chain in each case. For example (and depending on context), the adequate emptying of septic tanks may be considered the responsibility of property owners under municipal environmental health bylaws; whereas providing sewerage connections to households may be considered a responsibility of the utility. As discussed in Section 3.2, there are close relationships between household containment/emptying responsibilities and public responsibilities for desludging.

**5) Both downward and upward accountability are important.** The mandated service provider is accountable “downward” (to its customers, or more widely to all people living within its geographical remit),<sup>3</sup> and at the same time accountable “upward”, to local or national government (Freire et al. 2020). There are links between upward and downward accountability. Notably, upward accountability mechanisms may incorporate requirements for downward accountability: for example, a regulator may require utilities to have systems in place for responding to customer complaints, data transparency requirements, and/or requirements for community consultation processes around service quality or investment decisions. This is discussed further in Section 2.6; see also Box 1 above.

**6) Accountability is not merely about formal regulation.** Regulatory oversight and control is one mechanism for strengthening accountability, but diverse other mechanisms exist, including mechanisms based around customer or civil society feedback, as well as simple electoral accountability: if a local government is the mandated service provider but doesn’t provide services, it can (at least in theory) be voted out at the next election.

All of these issues will be explored further in the analysis that follows.

### Box 1. The web of accountabilities

We have referred in the text to “upward” and “downward” accountability. More broadly, service providers like utilities can be considered to function within a *web* of accountabilities to a variety of actors and groups: the service provider should be accountable to multiple actors, and a balanced web of accountabilities can prevent capture by any single actor. Furthermore, other actors in the web have their own accountabilities: for example, government is accountable for setting appropriate policy and providing adequate public finance, and the regulator (if present) is accountable for setting and enforcing tariffs and service standards. The degree of accountability of an entity within the web to any particular actor depends essentially on the ability of that actor to reward good performance or penalize bad performance, whether financially or in some other way. Here we should not under-estimate the impact of simple social pressure: as noted by several respondents in this study, the prospect of a positive news report or prestigious award can incentivize good performance, and a negative news report or other public naming-and-shaming can be a strong driver to correct failings.

<sup>2</sup> This bears some relation to the common distinction between “economic regulation” and “social regulation”. Economic regulation is typically defined as regulation of the conditions for a firm’s entry into a sector, and regulation of prices charged; social regulation is typically defined as regulation governing how firms or individuals may act, with a view to correcting “market failures”. In fact regulation of service provision, as considered here, includes elements of both “economic” and “social” regulation.

<sup>3</sup> Here we note that the nature of sanitation means that accountability is to all residents of a city, not just to customers: for example, a sewer leakage impacts on everybody in the affected location, not just customers.

## “The ultimate responsibility for ensuring the human right to sanitation lies with national government.”

### 1.4 Publication structure

This publication is structured as follows:

- **Section 2** reviews different types of mechanism for accountability, focusing particularly on the experiences of seven countries (Bangladesh, Brazil, Malaysia, Rwanda, Senegal, South Africa, Uganda and Zambia), but also drawing upon other examples where relevant and useful. The final subsections (2.9 and 2.10) summarize broad conclusions in tabular form.
- **Section 3** considers four centrally important questions: **a)** What upward accountability models are applicable to the main categories of service provider (national utility, subnational utility, local government)? **b)** What are specific approaches for achieving safely managed sanitation services? **c)** What are specific approaches for achieving inclusion of the poorest? **d)** How can higher-level accountability be strengthened? [In reference to the accountability of government, which sits above the accountability of mandated service authorities.]
- **Section 4** summarizes key findings and recommendations.



Image: Pit emptying in Kanyama, Lusaka

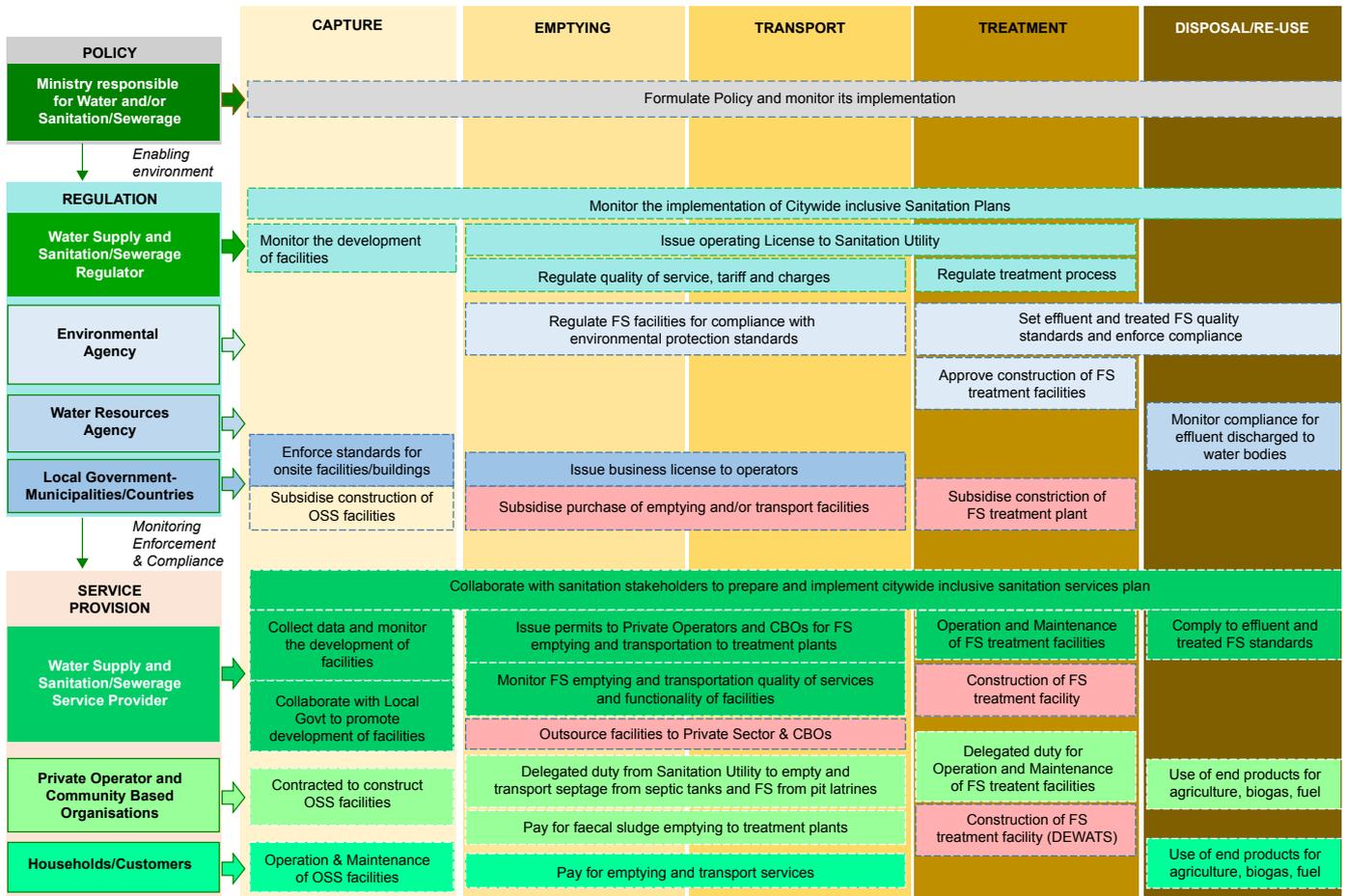
## 2. Accountability in practice

In this section, we look at accountability mechanisms of different types in the context of Citywide Inclusive Sanitation. Accountability has historically been weak for sanitation, and in most contexts remains very weak for **a)** non-sewered sanitation service provision and **b)** sanitation service provision to the poor, particularly those living in informal settlements: the two are typically linked, because poor urban residents rarely benefit from sewerage networks, and in most contexts are unlikely to do so in the short- to medium-term. In this paper, we therefore put particular emphasis on accountability for non-sewered sanitation services for the urban poor, though noting that Citywide Inclusive Sanitation is technology-agnostic and requires accountability across all population groups, not just the poor.

As already indicated, accountability requires objectives, tracking, and consequences, and we will consider each mechanism from this perspective. We will focus particularly on the experiences of 8 countries (Bangladesh, Brazil, Malaysia, Rwanda, Senegal, South Africa, Uganda, and Zambia), but we will also draw upon other experiences where this is useful. We note that most of the countries covered here are also covered under our parallel paper on responsibilities: we here make only brief reference to mandate structures, and readers should consult the parallel paper for more detail.

Before turning to accountability mechanisms, it is worth considering the range of roles and responsibilities which are necessary for non-sewered sanitation within a Citywide Inclusive Sanitation model. A representative generalized model is shown in Figure 2: this schematic delineates the responsibilities of different actors across the sanitation chain, and identifies diverse responsibilities which are closely related to accountability. In the current Lusaka model, for example, Lusaka Water & Sanitation Company has responsibility for regulated service performance targets being met, and it directly implements sewerage service provision; but it delegates implementation of non-sewered services to licensed private or CBO operators. In other locations, the precise details of how these responsibilities are assigned and executed may differ. Nonetheless, the Zambia example provides a very useful understanding of what needs to be considered.

**Figure 2. Representative generalized model of roles and responsibilities for sanitation (sewered and non-sewered), applicable to a context with an independent regulator (like Zambia or Kenya), or in modified form to other contexts. Adapted from ESAWAS (2019).**



Regulators may play multiple “regulatory” roles (including tariff setting, definition of minimum standards, and performance tracking of service providers); but often they also play very useful “think tank” roles, generating knowledge and debate around how to improve services. Here our primary focus will be on performance tracking of service providers, as centrally relevant to accountability (requiring performance objectives, and performance tracking, and real consequences). Where a regulator oversees multiple service providers, such tracking can be comparative; but there are also cases in which a regulator oversees a single national service provider, so that conventional within-country benchmarking is not possible (although certainly there exists the possibility of comparing performance between a national utility’s different regions).

We stress that an independent regulator (regulation by agency) is *not* a requirement for performance tracking: this may also be achieved through “regulation by contract” or direct ministerial oversight (Section 2.2), by some form of self-regulation (Section 2.3), or by formalized but non-regulatory approaches such as city ranking (Section 2.4).<sup>4</sup> Furthermore, performance can be tracked not by formal institutions, but – given sufficient data transparency – by citizens themselves, as discussed in Sections 2.6 and 2.7; though we stress that tracking by civil society alone may be insufficient in the absence of some higher regulatory oversight. Ideally, performance should be tracked both by governing institutions *and* by citizens. Regulators can facilitate this by publishing performance tracking results in full: Kenya’s Water Services Regulatory Board (WASREB) is a strong model here, with publication of a detailed annual “Impact” report, aiming for full public transparency around service provision by different utilities.

<sup>4</sup> Our categorization of types of regulation is only one possible categorization. For example, OECD (2015) uses the following categorization: regulation by government; regulation by an agency; regulation by contract; regulation by sourcing to third parties; and self-regulation. For a useful wider discussion of regulation, see SIWI/UNICEF/WHO/IADB (2021).

## 2.1 Independent regulation

Many countries have independent water and sanitation regulators, acting at national level or in some cases at subnational state/region level (as in some states of Brazil and Nigeria). Such regulators are typically government agencies, but with mechanisms in place to safeguard autonomy against direct political interference. Certainly, “independence” is relative: regulators form part of the governance apparatus, and can never be entirely independent of government influence. Nonetheless, many sector regulators act with strong critical independence. Sector specialist Kathy Eales remarks that *“the political independence of regulators is always relative, and perhaps not the most important thing: more important is an ethos of critical analysis and some degree of political weight”*.<sup>5</sup> We see this for example in Mozambique, where the regulatory authority CRA (now AURA) was led over the period 1999–2017 by a highly respected figure, Manuel Alvarinho, who along with other sector leaders drove very substantial change in Mozambique over this period.

Independent regulators may act within various mandate structures. The regulator may oversee subnational utilities with responsibility for both sewered and non-sewered sanitation (as in Kenya, Tanzania, and Zambia); or a single national utility with responsibility for both sewered and non-sewered sanitation (as in Malaysia and Lesotho); or a split mandate system in which a national or subnational utility is responsible for sewered sanitation and local governments for non-sewered sanitation (as in Rwanda and to some degree Mozambique). Here we will focus particularly on the cases of Zambia, Malaysia, and Rwanda.

### 2.1.1 Independent regulation: the Zambia case

In Zambia, urban water and sewered sanitation are provided by “commercial utilities” (CUs), which are semi-autonomous public entities expected to operate on commercial principles. These utilities are regulated by the national regulator NWASCO. The situation is evolving rapidly, with a relatively new national policy, and new NWASCO utility-licensing terms which formally add responsibility for non-sewered sanitation services to utilities’ existing water and sewerage responsibilities. Most notable here is NWASCO’s 2018 “FSM Regulatory Framework”, as mentioned above (NWASCO 2018). Performance tracking of non-sewered sanitation remains embryonic, but strong plans are in place to move this forward. That the situation remains “embryonic” is in no sense a critique: Zambia is much more advanced in this area than most



Image: Toilet entrance in Beira, Mozambique. Credit\_ Stand Up Media.

countries in sub-Saharan Africa and South Asia.

The Zambian FSM Regulatory Framework provides a structure for CUs to deliver on-site sanitation in urban areas, with responsibilities broadly as summarized in Figure 2 above. Centrally, the framework sets responsibilities for on-site sanitation, and creates a roadmap for the introduction of minimum standards and regulatory processes. Under this framework, CUs can give permits to private desludging operators to operate in the CU’s area of jurisdiction; at present, desludging operators are not directly contracted by CUs. Statutory responsibility for household containment (i.e., making sure that pit latrines and septic tanks are of sufficient quality) lies with the local government: in Lusaka’s case, Lusaka City Council, LCC. LCC is currently developing an on-site sanitation bylaw. Simultaneously, the Ministry of Water Development, Sanitation and Environmental Protection is developing a Statutory Instrument so that other urban local governments can adopt an adapted version of LCC’s bylaw.

Within this complex framework of responsibilities, how will the fulfilment of those responsibilities be achieved: in other words, how will accountability be achieved? Centrally, this depends on **a**) the future effectiveness of NWASCO in tracking performance of CUs (and through them, private FSM operators) and **b**) the future effectiveness of LCC in achieving effective containment by households. NWASCO currently produces detailed annual sector reports with comparative performance ranking of different CUs (NWASCO 2020), analogous to WASREB’s “Impact” reports and the Annual Water Utilities Performance Reports produced by Tanzania’s regulator EWURA. NWASCO’s sector reports include metrics on sanitation coverage. Currently, a household is considered “covered” if it has a sewer connection or a septic tank; households with pit latrines are not included,

<sup>5</sup> Interview Kathy Eales 18 June 2021. Quote paraphrased.

## “The political independence of regulators is perhaps not the most important thing: more important is an ethos of critical analysis.”

though the 2020 report notes that “*pit latrines in future might be considered once the code of practice/standards for onsite sanitation being developed by ZABS [the Zambian Bureau of Standards] are implemented and as more information is gathered on the nature and state of pit latrines*”. At present, there is no assessment of whether a septic tank is providing adequate containment, or whether it is being emptied with sufficient regularity: however, we would expect evolving minimum standards and performance metrics to take these factors into account. In relation to this, the report presents estimates of proportion of population (in each CU’s area) with “safely managed sanitation”, currently considering sewer connection or septic tank to indicate safely managed, but noting that “*with improved on-site sanitation data, septic tanks may be classified as either safely managed or basic sanitation*”: this is important, and indicates strong NWASCO understanding of the concept of safely managed. The most recent (2020) report does not contain performance metrics around desludging or other components of the on-site sanitation chain, but makes extensive reference to the FSM Regulatory Framework and its ongoing implementation: we certainly expect to see specific metrics around desludging and other aspects of FSM in coming years. Similarly, the 2020 report does not yet contain performance metrics specifically assessing service delivery in low-income areas or among low-income households otherwise defined (as seen in Kenya, where WASREB’s indicator set is being expanded to include poor-specific metrics; see Section 3.3). However, our NWASCO respondent indicates a commitment to change in this direction,<sup>6</sup> with development of a specific indicator or indicators for service delivery to the lowest-income urban areas/households, similar to that being implemented in Kenya. In general, then, NWASCO is making very strong progress towards effective regulation of on-site sanitation, but they’re not there yet.

The FSM Regulatory Framework states that an objective (for NWASCO and the Ministry of Local Government and Housing, MLGH) is to develop a harmonized national framework for monitoring and reporting on urban sanitation developments. This has not yet been achieved, and our NWASCO respondent indicates that the central challenge here has been aligning with local government: it was initially *overlooked that local governments needed to be “part and parcel” of this*. This is particularly important because meaningful regulatory performance metrics are dependent on agreement around minimum standards (particularly for household containment and emptying) and on clarity around how these minimum standards will be expressed and enforced through local government bylaws. Close liaison between the regulator, CUs, and local governments is also important to establish clarity around who will be responsible for collecting different types of monitoring data. To approach these issues, NWASCO has set up Joint Implementation Teams (currently in three CU areas including Lusaka), bringing together the CU, local government, and other actors to reach consensus on these questions. Meanwhile, Lusaka City Council (LCC) has finished formulating a bylaw governing on-site sanitation and sludge management, and this is expected to be formally approved in the near future.

Regulatory effectiveness requires not just performance tracking, but also consequences in response. Those consequences may be applied directly by the regulator, or applied by some other agency in response to regulatory data. NWASCO, like other regulators including WASREB, has the statutory power to apply sanctions including (in extreme cases) suspension of operating license – such that the utility’s senior management and Board lose their positions – and this sanction has been applied on several occasions.

### 2.1.2 Independent regulation: the Malaysia case

Malaysia is an unusual and interesting case, with a national regulator (SPAN) overseeing a national utility (IWK) which has responsibility for both sewered and non-sewered sanitation (as well as for water supply).<sup>7</sup> We should stress that Malaysia is not directly comparable to low- and low-middle-income countries in Africa and South Asia, because severely disadvantaged slum

<sup>6</sup> Interview 30 June 2021 with Chola Mbilima of NWASCO.

<sup>7</sup> Most of the information in this section comes from an interview of 24 June 2021 with Punita Nook Naidu, an independent consultant who has previously worked with both IWK and SPAN.

communities (as seen in Nairobi and Dhaka, for example) do not exist. Furthermore, there is no close correlation between wealth and type of sanitation: a rich household may have a septic tank, a poor household may have a sewer connection.<sup>8</sup> Nonetheless, the Malaysia model is of potential interest to countries with a single national utility.

The regulator SPAN was created by two 2006 parliamentary acts, the National Water Services Commission Act (the “SPAN Act”, which outlines SPAN’s role and functions) and the Water Services Industry Act (which provides for both economic and technical/social regulation, including tariff setting, operator licensing, performance tracking, and protection of consumer rights). This legislation was introduced centrally to enable Federal government to adopt regulatory control of a sector which had previously been under the control of States. Since the SPAN Act came into force in 2008, SPAN regulates all entities in the water supply and sewerage services sector, including public water supply and sewerage operators, private water supply and sewerage operators, water supply and sewerage contractors, and public and private desludging operators.

IWK’s direct responsibility for desludging is very recent. Over the period 1994–2008, desludging was treated as a scheduled service to be provided by IWK: but there was no strong incentive to require people to desludge their tanks, and IWK was frustrated by the lack of demand, and by lack of support from government in enforcing the requirement to empty. From 2008 onwards, desludging remained IWK’s formal responsibility, but desludging services were primarily provided by private operators, on an on-demand basis, not scheduled. However, this change – again in the absence of strong measures to enforce desludging – led to a dramatic decline in the number of tanks being emptied (from about 100,000 annually to about 10,000). In view of this, SPAN has very recently (May 2021) returned direct responsibility for desludging to IWK, on a scheduled basis, with property owners required by law to pay for emptying.<sup>9</sup> SPAN will track IWK performance, centrally on the basis of IWK reports.

SPAN has relatively weak power to penalize IWK for poor performance: it is appropriately empowered by the Water Services Industry Act 2006 and relevant regulations to act on licensees in event of poor performance, but to date IWK had not been licensed by SPAN. Furthermore,



Image: Toilet upgrading in Naivasha, Kenya

IWK is a politically powerful institution, with Ministry representatives forming part of its Board. The Water Services Industry Act of 2006 required IWK to move to a 3-year license model, but IWK (with government acquiescence) has not made this transition. As a result, SPAN does not have strong leverage, and acts primarily as a “good faith” advisory regulator. In fact, in the opinion of our respondent Punita Nook Naidu, IWK is essentially doing a good job, so that “good faith” regulation is sufficient, but if IWK were to stop doing a good job; the regulator lacks capability to respond (because the law has never been used to its full potential, and the specific methods of addressing such scenarios or possibilities have not been laid out).

### 2.1.3 Plans for independent regulation in Rwanda and Bangladesh

Both Rwanda and Bangladesh have plans for independent regulation of non-sewered sanitation. In the Rwandan case,<sup>10</sup> the planned situation is somewhat analogous to Malaysia (one national utility, one national regulator). Rwanda’s capital Kigali has no sewerage network, so that all sanitation is currently non-sewered (though plans exist for construction of a centralized sewerage network covering the city’s business district and adjacent areas). To date, the utility WASAC (Water and Sanitation Corporation) has not taken responsibility for desludging, which has largely been delivered by the private sector with limited regulatory oversight. There currently appears to be some disagreement about what will happen going forward. Our RURA respondent<sup>11</sup> indicates that formal responsibility is now being assigned to WASAC: WASAC will have responsibility for desludging (whether directly, or through contracted private operators), and this will be

<sup>8</sup> It is worth noting that, despite the absence of severely marginalized slum communities, Malaysia does have subsidy mechanisms to support sanitation for low-income households: occupants of low-cost housing pay only 25% of the normal sewerage tariff.

<sup>9</sup> Interview with Richard Franceys, 30 June 2021.

<sup>10</sup> Most of the information in this section comes from an interview of 17 June 2021 with Jacques Nzitonda of the Rwandan regulator RURA.

<sup>11</sup> Interview of 17 June 2021 with Jacques Nzitonda of RURA.

## “SPAN has recently returned direct responsibility for desludging to IWK, on a scheduled basis, with property owners required to pay for emptying.”

regulated by RURA, while disposal will be regulated by the Environment Agency. This is in line with what is indicated in RURA’s recently developed Guidelines for Faecal Sludge Management, which are currently in draft form pending approval by RURA’s Board (RURA 2020). However, our WASAC correspondent<sup>12</sup> indicated that WASAC only expects to take responsibility for treatment of fecal sludge (“desludging is not our mandate”). The Guidelines clearly specify key performance indicators and associated reporting obligations; these include detailed indicators around non-sewered sanitation (e.g., percentage of septage collected in relation to total expected collection), but do not currently include poor-specific indicators.

Bangladesh likewise has had plans to introduce independent regulation of water and sanitation utilities for many years, but no regulator currently exists. So the situation is not as advanced as in Rwanda. Bangladesh has recently developed Institutional Regulatory Frameworks for Faecal Sludge Management (IRFs) for Dhaka, for City Corporations and for Paurashavas (municipal governments of small towns).<sup>13</sup> These IRFs lay out responsibilities in different ways between the different categories of urban center: responsibility for non-sewered sanitation is clearly assigned to City Corporations and Paurashavas. There is currently no regulatory agency, but Bangladesh’s Eighth Five Year Plan (2021-2026) indicates that a national regulatory agency should be introduced sometime over the next five years. In the interim, the FSM Support Cell within the Department of Public Health Engineering (DPHE) is developing a national data collection system for tracking FSM performance of Paurashavas and City Corporations (excluding Dhaka, Chattagram, Kulna, and Rajshahi, which have water utilities [WASAs] and thus lie outside DPHE’s current purview). In the opinion of our DPHE respondent, comparative benchmarking will not be useful, at least at the outset: “We need to encourage them at first, provide support for implementing FSM system: facilitating champions at the end!”

The sanitation situation in Bangladesh’s mega-cities, and notably Dhaka, is deeply challenging and complex, as is widely known. Recognizing this situation, the DPHE and other key actors aim to first develop FSM models (and

associated accountability mechanisms) in smaller cities and towns. As discussed in Section 2.8, Dhaka is notorious for poor accountability and lack of transparency, and certainly there is a pressing need for improved accountability of the WASAs and the mega-city City Corporations.

### 2.2 Ministerial regulation and regulation by contract

Many countries do not have an independent regulator, and the performance of service providers is tracked by ministerial oversight through some sort of performance agreement. This can include a) situations in which the service provider is a private company with genuine possibility of contract termination or non-renewal in the event of unacceptable performance, or b) situations in which the service provider is essentially an arm of government, with little real risk of termination, short of legislative change. An example of the former situation is the private water and sanitation services providers Manila Water Company and Maynilad in Manila in the Philippines. Examples of the latter situation

#### Box 2. Key elements for independent regulation

In contexts with an independent regulator, the following elements can be considered key:

- The regulator must be *effective*, with sufficient conferred authority, technical capacity, financial resource, and political independence to deliver the regulatory role.
- Each regulated entity should have clear and appropriate performance targets, including poor-specific metrics and metrics around non-sewered sanitation (where this is within the service provider’s mandate).
- Performance monitoring should be sufficient in detail, quality, and rigor: service provider reports should be triangulated by independent verification and triangulation (e.g., household surveys)
- There should be full publication of performance targets and achievement against those targets, with narrative discussion of causes and responses in the event that a target is not achieved; ideally, this should be supported by summary publication in a format accessible to the general population.
- Consequences (positive rewards, negative penalties) should be clearly defined, and enforced. The regulator must have the capability to sanction for bad performance.
- Consequences should be fair: different service providers face different challenges.

<sup>12</sup> Interview of 09 July 2021 with Gisela Umuhumuza of WASAC.

<sup>13</sup> Interview of 23 June 2021 with Dr Abdulla Al-Muyeed of DPHE.

include the national utility NWSC in Uganda and the national sanitation agency ONAS in Senegal, and analogues in other francophone West African countries including ONEP in Côte d'Ivoire and ONEA in Burkina Faso.

The Manila situation can in fact be considered intermediate between independent regulation and ministerial regulation: a specific regulatory body (the Metropolitan Waterworks and Sewerage System Regulatory Office, MWSS-RO) was set up in 1997 by national government, within the Metropolitan Waterworks and Sewerage System, the government agency in charge of water concessions in Manila. It comprises 5 members (the Chief Regulator, and members for Technical Regulation, Customer Service Regulation, Financial Regulation and Administration and Legal Affairs).<sup>14</sup>

In Senegal,<sup>15</sup> the national sanitation utility ONAS is a government institution answerable to the Ministry of Water and Sanitation (Ministère de l'Eau et de l'Assainissement, MEA). ONAS is the mandated service provider for sewerage, treatment of sewage and fecal sludge, and fecal sludge management. It is a direct provider of sewerage and sewage/sludge treatment, but it is moving out of FSM activities and contracting private operators to serve delegated management areas. ONAS is governed by a performance agreement with the MEA and the Ministry of Finance and Budget (Ministère des Finances et du Budget, MFB). The agreement is renewed every three years and has performance targets on service quality and coverage. Under this agreement, ONAS submits annual reports to its Board of Directors, which determines whether performance is satisfactory against the targets set. The Board of Directors includes representatives from MEA, MFB, other ministries, ONAS employees, and citizens. To the best of our knowledge neither the performance agreement, nor performance targets and progress against them, are currently made public. Indeed, we are not aware of any systematic publicly available data on the performance of ONAS, in relation to either sewered or non-sewered sanitation. Thus it seems fair to conclude that in Senegal there is limited public accountability around sanitation: if accountability exists, it is treated as an internal matter between the ministry and the service provision agency. It is possible that strong internal accountability exists, and that real consequences are applied in the event of weak performance. However, we have no evidence of this, since the situation is opaque to external observers (and presumably to citizens of Senegal). Certainly, some aspects of the

Senegalese approach constitute a positive model: ONAS takes direct responsibility for treatment of fecal sludge, and under the World Bank-financed PAQPUD project 2005–2011 significant advances were made in provision of low-cost sewerage to slum communities. Nonetheless, we are not aware of major CWIS initiatives aiming for universal sewerage or adoption of desludging as a public service responsibility.

In Kampala, the national utility (National Water & Sewerage Corporation, NWSC) is similarly governed by a performance agreement with the Ministry of Water and Environment (MWE), renewed every 3 years. This agreement covers water supply, sewerage, and treatment of sewage and fecal sludge: collection and transport are the responsibility of the Kampala Capital City Authority (KCCA) (see Section 2.5 below). NWSC's performance is monitored by a Performance Review Team (PRT) from the Water Utilities Regulation Department. The PRT is comprised of technical, commercial, and financial specialists, and may be assisted by representatives from the Ministry of Finance and/or independent consultants. NWSC's website provides performance evaluation reports over the period 2011–2013 ("PACE Reports"), and Annual Reports from 2001/2002 to 2018/19, these with extensive reporting on performance metrics (including for example % of customer complaints resolved). However, we note that these reports do not show performance targets as set by the MWE, and neither do they include poor-specific metrics of any type. Our MWE respondent<sup>16</sup> indicated that "*some indicators are not very clear, and some indicators need to be included: looking at sanitation, we have not yet got clear indicators*".

<sup>14</sup> <https://ro.mwss.gov.ph/maynilad/>

<sup>15</sup> This section draws on an interview with Mamadou Binte Diallo of ONAS, and on the CWIS City Snapshot for Dhaka produced by Athena Infonomics (<https://s3.amazonaws.com/resources.cwis.com/learning/123/DakarCitySnapshotFinalEN.pdf>).

<sup>16</sup> Interview of 23 June 2021 with Abdumaliki Muyinda, Ministry of Water & Environment.

## 2.3 Self-regulation

Self-regulation can cynically be considered “absence of regulation” and consequent absence of accountability, and certainly there are locations where this is at least partially true; see for example the Dhaka case discussed in Section 2.8. However, in some contexts self-regulation can be an effective contributor to accountability; and certainly, in situations where this is no other regulation, it is better than nothing. In South Africa, the regulatory framework remains fragmented and ineffective,<sup>17</sup> and self-regulation by municipal water service providers plays an important role. Most large city (“metro”) water service providers have responsibility for water supply, sewered sanitation and non-sewered sanitation, and ring-fencing mechanisms are in place to provide a degree of independence from the municipal government. Johannesburg Water has an Internal Audit Department which maintains an ethos of critical independence from senior management, and the strength of this mechanism is reflected in Johannesburg Water’s publicly available Annual Reports,<sup>18</sup> with highly detailed reporting across multiple performance metrics including customer satisfaction metrics (see also Section 2.5).

Another example of self-regulation is Kampala City Council Authority (KCCA), which currently self-regulates non-sewered sanitation services provision (though certainly it is possible that elements of external regulation will be introduced in coming years). KCCA has responsibility for non-sewered sanitation: desludging is done by private operators, but KCCA is closely involved in stimulating and monitoring this. Licensed desludging trucks are GPS-tracked, allowing monitoring of which neighborhoods are being served, and whether sludge is being safely disposed. A partial subsidy (70% of market price for desludging) is available to poor households (identified by a consultative process at Ward level), and the subsidy is delivered as a voucher which can be used to pay the desludging operator; we note that this subsidy is currently donor-funded, so cannot yet be considered sustainable. KCCA has been tracking service delivery to low-income households for over 5 years, and has seen poor household proportion (proportion of emptyings which are of poor households) increase from about 35% to about 45%; they are currently looking at ways to increase this proportion to over 50%. KCCA also takes an active stance on safe containment:

### Box 3. Key elements for accountability in regulation-by-contract systems

Where there is no independent regulator and upward accountability is achieved centrally through a performance agreement with the line ministry, the following elements can be considered key:

- Incorporation of diverse stakeholders into the performance review committee, including civil society representatives bringing an independently critical perspective.
- Involvement of the performance review committee (including civil society representatives) in setting future performance metrics and targets.
- Cross-check and triangulation mechanisms (e.g., independent verification, household survey) to check that service provider reporting is accurate and honest.
- Inclusion of specific metrics around services for the poor and (if within service provider mandate) non-sewered sanitation.
- Full publication of performance targets and achievement against those targets, with narrative discussion of causes and responses in the event that a target is not achieved; ideally, this should be supported by summary publication in a format accessible to the general population.
- Genuine consequences for unacceptable performance, with the details of the model made public: what performance will be judged unacceptable, and what will the consequences be?

Kampala’s groundwater has high levels of bacterial contamination, so municipal regulations require septic tanks to be lined to minimize leaching. KCCA’s driving involvement in creating adequate non-sewered sanitation services is supported by various downward accountability processes including a citizen complaints mechanism (complaints can be submitted by calling, texting or email, and automatically raise a complaint reference requiring resolution), and a semi-formal system of community meetings (“barazas”), in which city officials go into communities, account for work they have done, and get feedback. Notwithstanding these processes for self-regulation and downward accountability, our KCCA respondent<sup>19</sup> recognizes that accountability could be improved, including by more structured reporting to relevant higher institutions (the Ministries of Health and Water & Environment), and through monitoring and publication of service provision data.

<sup>17</sup> South Africa’s national Water and Sanitation Master Plan 2018–2020 (Department of Water and Sanitation, Republic of South Africa) indicates that the current regulatory system is “extremely complex”, and identifies “lack of strong regulation” as a sector challenge.

<sup>18</sup> This is not to suggest that Johannesburg Water’s self-regulation is perfect. On the plus side, there are poor-specific metrics (including percentage coverage of households with access to basic sanitation in informal settlements): the tracking of poor-specific sanitation metrics is unusual in sub-Saharan Africa, and a very positive feature of the Johannesburg Water model. On the minus side, however, the target for sanitation coverage in informal settlements is very low: only 45%.

<sup>19</sup> Interview of 24 June 2021 with Allan Nkurunziza of KCCA.

In conclusion with regard to self-regulation, we would add the importance of data transparency, as further discussed in Section 2.8: a very strong model here is Johannesburg Water's detailed publication of performance against an extensive list of metrics. But certainly, such models can only be effective where there is a political and professional culture that permits rigorous self-critique and transparency.

## 2.4 City rankings and award schemes

City ranking schemes have been applied in countries including India and Ghana. These schemes are essentially similar to comparative benchmarking by a regulator, creating a competitive environment conferring prestige upon the best-performing cities and naming-and-shaming the worst-performing cities. As discussed in Section 3.1 in relation to comparative benchmarking, it is important to distinguish between *absolute scoring* and *service provider performance scoring*: given different baselines and different challenges faced by different cities, the two things are not the same.

In India, the Swachh Survekshan (Cleanliness Survey) is an annual survey of cleanliness, hygiene and sanitation in villages, towns and cities across India, as part of the wider Swachh Bharat Mission. The survey has run since 2016, and in 2020 covered 4242 cities, including all of India's large cities. The surveys are carried out for the Ministry of Housing and Urban Affairs by competitively procured survey firms (initially the Quality Council of India, more recently IPSOS). Scoring is based on a combination of service level progress as reported by cities themselves, citizen feedback, and direct observation by survey staff.<sup>20</sup> Evaluation categories in 2020 were: collect segregated [solid] waste and maintain till processing site; utilize capacity of wet waste processing facilities; treat and re-use wastewater; follow 3R principles (reduce, reuse and recycle); curtail solid waste based air pollution; uplift social condition of informal waste pickers; promote procurement through the Government e-Marketplace; "assess towns on the Ganges separately to accelerate action"; engage technology driven monitoring. Thus this is a broad survey, currently with a strong focus on solid waste management rather than sanitation (overall weighting for sanitation about 25%, versus 60% for SWM); disappointingly, the proportion of the population with basic or safely managed sanitation is *not* currently an indicator. Among cities with population over 1 million, Indore was ranked highest and Patna lowest. States are also ranked: in 2020, and among states with more than 100 cities and towns (Urban Local Bodies), Chhattisgarh was ranked

### Box 4. Key elements for accountability through self-regulation

Self-regulation can potentially be very powerful (whether alone or within a top-down-regulated structure), but it can only be effective when:

- The internal self-regulation unit has strong critical autonomy: a "license to criticize freely", not merely accepted but actively *encouraged* and *protected* by top management.
- The internal self-regulation unit is staffed by highly skilled people with an ethos of critical rigor.
- The findings of the internal self-regulation unit are made fully public, without "massaging" by top management or units concerned with the organization's reputation.
- In many organizational and political contexts, these requirements are very difficult to achieve. Where these requirements are not met, self-regulation is unlikely to be a driver of accountability: worse, it may become a tool for avoiding accountability.

highest and Bihar lowest. The cost of the survey was reported to be about \$600,000 per annum in 2018 (Notice of Award of Contract for Swachh Survekshan Grameen-2018) rising to about \$1,000,000 per annum in 2019/2020 (Notice of Award of Contract for Swachh Survekshan Grameen-2019 and 2020): the survey is at present largely financed by the World Bank. These costs are direct procurement costs to central government, and do not include other likely costs, including the costs to cities of collecting data. This is clearly an expensive operation, but of course it should be noted that India is a vast country: in terms of population size, about 26 times bigger than Kenya, for example.

A somewhat related initiative was the DFID-funded Sanitation Challenge for Ghana, which aimed to stimulate local government to develop and implement innovative approaches to urban sanitation. Metropolitan, Municipal and District Assemblies (MMDAs) were encouraged to submit liquid waste management (LWM) strategies for the whole urban area served, including the poorest segments. Of the 139 MMDAs targeted, 48 submitted eligible LWM strategies and 21 MMDAs were recognized, either through monetary prizes totaling £75,000 or with honorary prizes. The 21 MMDAs that won a prize under Stage 1 were invited to participate in Stage 2: the implementation stage, known as the Dignified City Award. A total of 17 MMDAs were eligible to continue in the competition, after proving their political and financial commitment to participating and providing improved sanitation services for the urban poor. An evaluation of this initiative concludes that "*The 15 finalists demonstrated a positive change in their sanitation planning, policy, resource allocation and/or attitudes towards LWM, and made good*

<sup>20</sup> For full details of methodology and findings, see [www.swachhsurvekshan2020.org](http://www.swachhsurvekshan2020.org)

progress in their LWM strategy implementation. [The initiative also] had an effect on local funding and legislation for LWM. There is some evidence, for example, that SC4G stimulated and enabled MMDAs to allocate (and in some cases, release) more budget to sanitation/LWM and to revise and enforce by-laws relating to sanitation” (Gould & Brown 2020). To the best of our knowledge, the Dignified City Award has not continued now that the DFID funding has come to an end: the evaluation notes that “*The Prize’s closure at the final prize award, with no explicit exit or sustainability strategy, is a missed opportunity*”.

Zambia has plans for a city sanitation ranking and award scheme, within the National Urban and Peri-Urban Sanitation Strategy 2015–2030 produced by the Ministry of Local Government and Housing. Under the proposed scheme, mayors and local government officials would receive awards for efforts at city level: “*it is assumed that the ranking would create awareness for sanitation and trigger competition between the cities*”.

Finally, we note that city ranking can be applied to utilities, not only to municipalities. The World Bank’s international benchmarking system for utilities, IBNET, is in some contexts essentially a comparison of cities. However, it is worth noting that IBNET is more focused on water than sanitation, and certainly its current metrics do not provide a detailed picture of non-sewered sanitation. ESAWAS has introduced a “best of best” utility recognition system across the region (Eastern and Southern Africa), introducing an incentive to outperform beyond a country’s borders.

## 2.5 Customer feedback/complaint mechanisms

Nearly all large sanitation service providers have mechanisms in place to receive and respond to customer complaints. But how effective are these mechanisms? Here we focus largely on customer complaint systems in the context of water supply and sewerage sanitation: we are not aware of systematic city-level mechanisms for customer complaints around desludging, as expected given the early stage of development of desludging as a public service. Nonetheless, the broad principles seen in water supply and sewerage sanitation are readily applicable to desludging services.

Service provider respondents in this study gave descriptions indicating customer complaint mechanisms of varying degrees of adequacy. Apparently strong examples include the Kampala municipal provider, KCCA: our respondent

### Box 5. Key elements for accountability through city rankings and award schemes

City rankings and award schemes can potentially be powerful drivers of accountability. But to date they have not been widely applied in the urban sanitation context. An exception is India’s Swachh Survekshan: but it should be noted that in its current form this is not centrally focused on sanitation.

- Where approaches of this type are being considered, it is important to focus on “movement up the ladder”, not just “position on the ladder”: some cities start with much better sanitation, or less severe challenges, than others. If “movement up the ladder” is not the central focus, these schemes are likely to be demotivating for service providers faced with more difficult challenges.
- To drive Citywide Inclusive Sanitation, the metrics used in city ranking and award schemes need a clear focus on inclusion and on service quality: what proportion of the low-income population receives sanitation services of high quality?

indicated that they have a complaints mechanism coordinated through a call center (or alternatively via email or text): a client relationship management (CRM) system is used, generating a case number which cannot be closed unless the case is resolved. This is general across KCCA,<sup>21</sup> not specific to desludging services. Zambia’s Lusaka Water & Sanitation Company (LWSC) also provides a good example: service providers often don’t explicitly use the word “Complaints”, preferring more neutral “Contact”, but LWSC is exemplary here, with a button for “Complaints” in prime location on the home page of their website, and again automatic case number generation. Less strong was the response from the CEO of another African utility, who said “*Yes, we have a structured complaint process: the customer can first call the branch, then if that doesn’t work they can call the Commercial Unit. And some customers go the extra mile, they call the regulator or the ministry*”. This does not appear to be a structured process, and raises the possibility that well-connected people may be able to get special treatment.

Customer feedback mechanisms need to be tracked to assess whether they are performing well (i.e., to confirm that complaints are facilitated and logged, and that they are resolved in a short space of time), and to confirm that there is a strategic response aiming to reduce complaints in the future. Johannesburg Water provides a strong example of good practice here: multiple metrics related to customer satisfaction are tracked (including for example “sewer blockages cleared within 24 hours” and “communication of planned service interruptions

21 <https://www.kcca.go.ug/contact-us>

sent within seven days”), and these are publicly reported in the Annual Report, with reader-friendly emoticons (green smiley, yellow neutral, red frown) used in the graphical presentation. The Annual Report also includes a section “Public Satisfaction in Municipal Services”, with honest and transparent analysis of failings. Citing from the 2019/20 report (Johannesburg Water 2021): *“The Company maintained its satisfaction level of 71%, similar to the previous financial year. While customers attested to the good quality and uninterrupted supply of water, concerns remained with regards to the clear identification of staff who do repairs; interaction with staff who do repairs; the speed at which repairs and maintenance requests are attended to; and dissatisfaction with customer education campaigns. The Entity has taken these issues into considerations and will implement measures to improve satisfaction levels across all customer categories in the 2020/21 financial year.”* [This laudable transparency likely relates to Johannesburg Water’s strong processes for self-regulation, outlined in Section 2.3.]

Regulators often perform two important roles here. Firstly, they provide a “next level” for complaints if the customer is dissatisfied with the service provider’s response: for an example of this, see the Water and Sanitation Complaints Resolution page of the website of the Tanzanian regulator EWURA.<sup>22</sup> The Zambian regulator NWASCO operates a centralized system for complaints to utilities, through the “MyWatSan” platform accessed via the internet or as a mobile app. The 2020 Sector Report (NWASCO 2020) indicates that a total of 595 complaints were recorded in 2020, of which 486 were escalated to NWASCO. Secondly, many regulators track how effectively utilities (or other service providers) are responding to customer complaints. For example, NWASCO applies a “Client Contacts” KPI to utilities, assessing the proportion of complaints which are resolved within a stipulated timeframe. NWASCO’s 2020 Sector Report indicates that 6 utilities met the performance requirement, while the remaining 5 did not.

We stress again that the above outline relates primarily to water supply and sewerage, not to desludging services. Nonetheless, the approaches described for dealing with customer complaints are readily applicable to desludging services.

### Box 6. Key elements for accountability through customer feedback/complaint mechanisms

Feedback and complaint mechanisms for existing customers are an essential function for all service providers; but this should not detract from the service provider’s wider responsibility to all residents of the city, including those who are not yet customers.

- Customer complaint mechanisms need to be structured processes: it should be easy for a customer to complain, their complaint should be automatically logged, and a standard response and resolution process should be applied (no “special access” for the well-connected).
- Regulators can play key roles, both by tracking customer complaint resolution, and by providing a “next level” for customers who have not received satisfaction from their service provider.

## 2.6 Wider citizen recourse mechanisms and civil society voice

Robust and responsive mechanisms for customer complaint and feedback are essential for accountable service delivery: but they are of little value to people who are not customers, either because they are not offered services, or because they’re offered services but can’t afford them. Indeed, in contexts where a large part of the population is excluded from services (as with sanitation in many towns and cities in sub-Saharan Africa and South Asia), an over-emphasis on *customer* satisfaction risks impeding fulfilment of the wider mandate to serve all residents of the city. In a previous study (WSUP Advisory 2021), one Kenyan utility CEO reported that *“dealing with complaints from rich people in big villas”* was a significant drain on time and resources. This is particularly relevant to sanitation, where (in general) a privileged few are able to demand resolution of sewer blockages, but the unserved majority have no such recourse because they’re not connected to the sewerage network and receive no other public sanitation service.

So what mechanisms exist for giving accountability to all the city’s residents, beyond accountability to existing customers? One mechanism, of course, is electoral accountability of national and subnational government (if municipal services are poor, leaders can be voted out). This is discussed separately in the next section. There are some examples of sanitation-specific accountability mechanisms for local authorities. For example, in Kampala, as noted, the municipal provider KCCA has a citizen complaints mechanism (complaints can be submitted by phone, text or email, and

<sup>22</sup> <https://www.ewura.go.tz/water-complaints-and-resolution>. Complaints received are also made fully public, with indication of action taken in each case: see <https://www.ewura.go.tz/wp-content/uploads/2019/06/Consumer-Complaints-Water-and-Sanitation-31-May-2019.pdf>

automatically raise a complaint reference requiring resolution). There is also a semi-formal system of community meetings (“barazas”), in which city officials go into communities, account for work they have done, and get feedback. Some cities, including Johannesburg and Kampala, run regular surveys assessing residents’ satisfaction with different municipal services including sanitation, and this is clearly a valuable approach: it is more naturally seen in cities in which multiple services are provided by the municipality, but there is no reason why surveys of this type cannot be delivered by a municipality (with inclusion of sanitation) in contexts in which sanitation service provision is not a direct municipal responsibility.

Mechanisms of this type are a form of downward (or “bottom-up”) accountability. Serra (2021) argues that downward accountability is effective because a) residents have first-hand information (and thus more accurate information) about service quality; b) they have incentives to attack poor service standards (or corruption) that directly affect them; and c) policy-makers are sensitive to “social punishment” from their own communities.

There are thus strong arguments for incorporating all of a city’s residents into service quality assessments and consultation processes. Regular citywide surveys of satisfaction with services, run by the municipality, are a particularly promising approach. But consultations and surveys are not enough, if no actor has the mandate, upward accountability, and resources for providing sanitation services across the city.

## 2.7 Electoral accountability

In all countries, adequate urban sanitation is in the final analysis a government responsibility. This is true whether the mandated service provider is a national utility, a subnational utility, or a local government. Thus in democratic regimes, elections are – at least in theory – a mechanism of accountability: if your national or local government is not providing adequate sanitation services, you can vote them out. This “electoral accountability” is more directly pertinent in contexts in which local government is the mandated service provider; but it is also, at least in theory, applicable in contexts in which the mandated service provider is a national or subnational utility.

In practice, of course, elections are decided on much wider grounds than sanitation alone. In many or most countries and cities, elections are arguably more about *identity* (party allegiance, cultural values, etc.) than about quality of services, or wider quality and integrity of political

management. Even when quality of services is a key deciding factor in elections, sanitation is of course only one among a spectrum of urban public services. Thus electoral accountability alone is unlikely to be sufficient to drive Citywide Inclusive Sanitation.

However, this does not mean that we should disregard electoral accountability. Although elections are unlikely to be decided on the basis of sanitation alone, local and national politicians are widely viewed to be sensitive to the demands of slum dwellers: in a recent study for the World Bank (WSUP Advisory 2021), sector specialists in four African countries (Burkina Faso, Kenya, Mozambique, Zambia) consistently indicated that elected political leaders are pushing for service improvements for the urban poor, with statements like “*politicians push us to allocate resources there*”. However, some informants noted that politicians often seek to be associated with the reputational credit of an intervention, which may push interventions in less appropriate or unsustainable directions: highly visible infrastructures “with a ribbon to cut” may be favored over less visible but more valuable improvements. Furthermore, in many contexts informal settlements remain to some extent excluded from service provision: in Burkina Faso, for example, the national utility ONEA is not permitted to directly provide services to unplanned settlements, on the government view that such settlements require formalization and restructuring before any investment in permanent infrastructure. Similarly in Brazil, provision of piped water and sewerage services to unauthorized *favelas* is reportedly considered

### Box 7. Key elements for accountability through citizen feedback/complaint and civil society voice

Millions of urban dwellers in sub-Saharan Africa and South Asia do not receive any form of publicly supported service beyond a filthy public toilet. Customer services are of little use to these people. In order to achieve Citywide Inclusive Sanitation, governments and other stakeholders (including development and finance partners) need to drive urban residents’ *expectation* of government-facilitated basic services. Potential ways of achieving this include:

- Structured, responsive, and easily-accessible municipal complaints processes, providing an avenue for people to complain not just about services they receive, but about services they should receive but don’t.
- Structured and genuine involvement of all city residents (including people living in informal settlements) in sanitation planning processes.
- Citywide surveys of satisfaction with basic services (including sanitation), with published results potentially driving expectation of better services.

illegal by the Public Prosecutor (see Section 3.1). We can identify two key requirements for driving electoral accountability: first, transparent and accessible publication of rigorous and comprehensive data on service levels and investments; second, public education so that urban dwellers come to view sanitation services as their right, and so that they push for real improvements (as opposed to ribbon-cutting opportunities). This is discussed further in the next section (“Transparency”).

## 2.8 Transparency

Transparency – open and timely publication of accurate data on service levels, service provider performance, and government budget allocations – can be considered fundamental for accountability. This transparency requirement applies also to recruitment of staff and decision-makers, including utility staff and utility Boards of Directors. If comprehensive and accurate data is collected and made public (by a regulator, or by some other public or non-governmental agency), it becomes available to citizens, to civil society organizations, to the media, to sector stakeholders, and to political leaders. Data transparency is perhaps the most fundamental requirement for accountability in Citywide Inclusive Sanitation, and the approach that is most generally applicable across all contexts: sunlight is the best disinfectant.<sup>23</sup>

There are multiple positive examples of transparency around urban sanitation service levels. The annual reports published by WASREB and NWASCO are good examples of detailed public reporting on utility performance (though certainly, in both cases there is a need for more specific metrics on non-sewered sanitation and services in low-income communities, as fully recognized by WASREB and NWASCO respondents). In the below-mentioned case of CESAMA in the Brazilian city of Juiz de Fora, we see a municipal water and sanitation company with strong commitment to transparency: our CESAMA respondent<sup>24</sup> noted that their biggest current weakness is very low proportion of sewage safely treated, and he highlighted that publication of this failing by the regulator is a major spur to improvement.

Transparency may also be driven by civil society: the Asivikelane initiative in South Africa surveys residents of informal settlements across multiple cities, and publishes service level data in tandem with municipal budget data to help advocate for improved accountability in municipal services and public finance (IBP 2020). These data are

### Box 8. Key elements for accountability through electoral means

As discussed in the text, electoral accountability alone is not a sufficient driver for Citywide Inclusive Sanitation. But it can be a significant contributor, and this can be supported by:

- Detailed and transparent publication of service quality data across the city, with mapping indicating which areas are most disadvantaged.
- Public education to drive both a) expectation of public services among people with no services or very poor services, and b) solidarity among people who enjoy better services.
- Publication of clear manifestos by political parties seeking election, so that any commitment to sanitation improvements is clearly expressed in writing.



Image:  
WASREB  
Impact Report

made public in readily comprehensible graphical form (Figure 3). In addition, crowd-sourced mobile data may be relevant here: for an interesting example from another context, see the Brazilian TDP mobile phone application supporting citizen monitoring of public school construction projects (Freire et al. 2020).

Several of our respondents from institutions which are seriously committed to Citywide Inclusive Sanitation (for example, Allan Nkurunziza of the Kampala municipal authority KCCA) noted that more comprehensive data monitoring and greater data transparency are necessary. This aspiration is also seen, for example, in Zambia’s National Urban and Peri-Urban Sanitation Strategy 2015–2030 and in NWASCO’s FSM Regulatory Framework.

<sup>23</sup> This quote comes originally from a 1914 article by US legal scholar Louis Brandeis. It is typically used to suggest that transparency is the best cure for corruption; but it is equally applicable in a broader sense (i.e., transparency of public institutions is the best approach for ensuring that those institutions fulfil their mandate).

<sup>24</sup> Interview of 01 July 2021 with CESAMA CEO Julio César Teixeira.

Figure 3. Basic services scorecard produced under the Asivikelane initiative in South Africa.



In other countries (including Senegal) we see little evidence of any aspiration for, or progress towards, greater data transparency. And in some cases we see deliberate efforts to *impede* transparency, as documented in Dhaka in Bangladesh (this relates to water quality, not sanitation, but is nonetheless of interest here). A 2019 report on Dhaka's water utility DWASA, by Transparency International Bangladesh (TIB), reported water quality sampling which indicated widespread microbiological contamination of DWASA's water as supplied to the consumer. The report also presented evidence that many Dhaka residents are obliged to boil water before use, in view of lack of confidence in the water's quality. In response, DWASA's MD rejected the criticism: "*The water we supply is 100% drinkable. It is not a professional research report. We maintain the WHO's standards for water in our pipeline.*" Citing DWASA's own survey of 234 samples over a one-year period, the MD claimed that "*no faecal coliform bacteria was found in the water*" (The Independent 2019). In light of the TIB report and various published scientific studies<sup>25</sup> indicating widespread microbiological contamination of DWASA's water supply, this is a striking example of lack of transparency and lack of accountability: in 2020, DWASA's MD was reappointed (after 5 consecutive terms since 2009).

Finally: in discussing the importance of transparency for accountability, we should briefly mention the broader importance of transparency for achieving wider integrity and fighting corruption. This goes beyond this paper's central focus on accountability in service provision. But it is nonetheless related in multiple ways: transparency around service provision may in some cases be resisted by corrupt vested interests, for whom transparency poses a threat to corruption opportunities. And evidently, corruption has multiple negative impacts on service provision. The interested reader should consult the Water Integrity Global Outlook 2021, which has a special focus on urban water and sanitation (Water Integrity Network 2021).

25 For example, Amin et al. (2019) found that 15% of tap water samples were E. coli positive in Dhaka City North, and 36% in Dhaka City South.

## 2.9 Pulling it all together: core requirements

We have above discussed the various approaches by which accountability can be strengthened in the context of Citywide Inclusive Sanitation. But it is worth stepping back from this to consider the core requirements for accountability, and key tools by which accountability can be achieved.

We suggest that there are three core requirements for accountability: specifically, the accountability entity or mechanism requires *political autonomy*, *fiscal independence*, and a *basis in national law*. In Table 1, we define each of these requirements, provide examples, and outline risks and limitations. In Table 2, we very briefly summarize how these requirements are met by the main types of accountability approach.

## 2.10 Pulling it all together: key tools

We also suggest that there are a number of key *tools*, which can be applied under multiple different types of accountability approach and institutional framework. These key tools are summarized in Table 3.

**Table 1. Core requirements for accountability systems.**

Requirement	What does this mean?	Examples	Risks / Limitations	Counter Examples
Political Autonomy	Elected officials, or appointees of elected officials, do not engage in decision-making or core functions.	Independent regulators overseeing multiple utilities (e.g. NWASCO in Zambia) or a single national utility (e.g. SPAN in Malaysia).	Autonomy can be superficial. Informal avenues of political influence or capture can prevail.	<ul style="list-style-type: none"> <li>Ministerial regulation: e.g. Uganda's WARDA is a department of Ministry.</li> <li>Self-regulation: e.g. municipal service departments in South Africa and India. May be strong, may be weak.</li> <li>Program assessment: Swachh Bharat assessment integrity subject to influence by elections and party politics</li> </ul>
Fiscal Independence	Operating funds are automatically and sufficiently generated by performance of regulatory activities; engagement, resourcing, and staff retention not subject to political influence and budget-cycle uncertainty.	Kenya and Zambia: regulated entities pay fees that support regulatory implementation as condition of permit to operate.	Can be difficult to enforce or effectively incentivize payment of fees. Technical decisions may be influenced by "political popularity" considerations.	Budget for operation provided in national budget (e.g. WARDA in Uganda: in some previous years defunded).
Basis in National Law	Embedded in law, not a time-bound program of a specific administration or leader.	Seen widely where this is an independent regulator.	The existing basis in law may lack teeth, and laws can change in ways that reduce effectiveness for accountability.	India's Swachh Bharat Mission is a phase-limited initiative of the Modi administration. But one-off programs may be important during sector transition processes.

**Table 2. Likely effectiveness of the major upward accountability mechanisms for achieving the core requirements for accountability. Electoral accountability is an upward accountability mechanism, but is very different and not well described under this classification.**

Requirent	Independent Regulator	Ministerial Regulation	Self-Regulation	City Ranking Schemes and similar
Political Autonomy	Yes	No	No	No
Fiscal Independence	Yes	Unlikely	Maybe	Unlikely
Basis in National Law	Yes	Yes	Maybe	No

**Table 3. Key tools for strengthening accountability.**

Tool	What does this mean?	Examples	Risks / Limitations
Interpreting/ defining performance relative to legal mandate	Translating what the legal mandate means in practice: what does the mandated service authority need to do?	The ongoing dialogue in Lusaka (Zambia) – between utility, municipality and regulator – to clarify responsibilities around containment at the household level.	This is strongly dependent on the validity and precision of the mandate: if the mandate is not clear and/or does not guarantee inclusion, “interpreting” it will have limited value.
Creating monitoring systems	Real, timely expenditure and service provision data are reported by regulated service authorities, validated, used in decision making, setting performance targets, and application of clear incentives/ penalties.	Zambia’s NWASCO and Kenya’s WASREB are positive examples here.	Validating reported data may be costly, especially in contexts of decentralized assets / services. Monitoring systems may be tied to official parcel or settlement systems, and ignore informal settlements.
Establishing and implementing performance incentives & penalties	Accountability requires meaningful consequences for good performance (positive incentives) and poor performance (negative penalties).	Again, Zambia’s NWASCO and Kenya’s WASREB are positive examples here.	Difficult to enforce if political will (or financial resource for rewards) is lacking.
Establishing and implementing transparency requirements and systems	Accountability data, decisions and consultation processes need to be shared rapidly, frequently and via readily accessible platforms.	South Africa’s Blue Drop and Green Drop publications.	If publication process is not autonomous, data integrity and continuity are subject to political cycles. The Green Drop and Blue Drop publications were terminated in 2012, although an analogue has been continued by the civil society organization AfriForum.
Providing space and resources for civil society oversight and voice	Civil society access to processes, data, decision-making and grievance redressal needs to be designed into systems; service authorities need to be required to implement citizen and customer information, engagement, feedback, and redress.	KCCA’s citizen complaint processes in Uganda.	Redress mechanisms need to apply to all people in the city, not just existing “customers”



Image: Turning processed human waste into safe fertilizer (Dhaka, Bangladesh). Credit: Neil Palmer/IWMI.

### 3. Discussion

In the preceding section, we have detailed accountability mechanisms existing in various countries, with a particular focus on non-sewered sanitation. This is informative and useful: but it's easy “not to see the wood for the trees”, or in other words to get lost in the detail and lose sight of the core questions. We need to step back, and ask whether the institutions responsible for urban sanitation are held accountable. If you are a slumdweller in a city in sub-Saharan Africa or South Asia, and you are not happy with the sanitation services you are receiving: what recourse do you have? Is there someone you can complain to? If you complain, will anything improve? Are regulators or other agencies holding your service provider to account, in ways that are improving the quality of the services you receive? And if you simply don't receive any sanitation services: what recourse do you have in that situation?

A first important point to note here, as raised by sector expert Kathy Eales,<sup>26</sup> is that accountability for a public service requires an *expectation* of that service. In contexts in which public services are typically poor even for the middle classes, and in which public services in informal settlements are at best poor and often essentially non-existent, people may not expect public services. In the specific context of this report, people may not expect a publicly managed desludging service; or they may indeed consider it to be the responsibility of the authorities, but have such little faith in those

authorities that they see no value in demanding it. We do not have any empirical data on this, but we suggest that one approach to advancing accountability for Citywide Inclusive Sanitation may be public education and attitude change, encouraging people to see non-sewered sanitation services as a right which they can and should demand. We discuss this further in Section 4 (Concluding Recommendations), where we note that this is not just about citizens' rights: it's also about citizens' *responsibilities*.

A second important point relates to higher-level accountability. We have focused on the accountability of the service provider, to deliver those services which they are mandated to provide. But repeatedly, service providers point out that it is unfair to hold them accountable if they are not adequately *enabled* to meet their social mandate. As a result of inadequate tariffs, inadequate cross-subsidy mechanisms, or inadequate provision of public funds, a service provider may simply have inadequate financial resource to deliver services in low-income settlements. Furthermore, service providers may not receive legislative support: we have seen this in the wealthy context of Malaysia, where the national utility struggles to achieve desludging coverage in part because of a lack of laws or regulations requiring property owners to empty their septic tanks regularly; similarly, in many countries we see that building regulations requiring adequate containment of fecal waste are not adequately enforced. These are complex

<sup>26</sup> Interview of 18 June 2021 with Kathy Eales.

questions: this can easily become a service provider excuse for weak performance (“we’d do better if the government gave us more money”). But certainly adequate resourcing is an important part of the puzzle, as discussed in our parallel publication on Resource Planning & Management.

If mandated service providers are not adequately resourced by government, we must consider that the real failure is a failure of government, and it is government who should be held accountable,<sup>27</sup> not just the service provider. Most progressive regulators are fully aware of this, and navigate this issue in a nuanced manner: for example, the 2018/19 Impact report from Kenya’s regulator WASREB states that *“Going forward, WASREB is convinced that aside from increasing self-financing [by utilities], the game changer in the sector will be increased public funding, coupled with enhanced fund effectiveness”*. Advancing the accountability of government to its citizens is evidently complex and highly challenging in political economic terms: it lies beyond the central scope of this paper. Nonetheless, we consider that many of the approaches which can enhance service provider accountability can also enhance higher-level government accountability, including a regulatory body (independent or internal) with an ethos of critical rigor, and a committed policy of data transparency and data access.

Bearing in mind these two core considerations, in what follows we consider four key questions that can help us to understand how accountability for Citywide Inclusive Sanitation can be advanced.

### **3.1 What upward accountability models are applicable to the main categories of service provider (national utility, subnational utility, local government)?**

#### **Single national utility**

Where a single national utility is the mandated service provider, there are three particular challenges to accountability: first, such utilities tend to be large and politically powerful, and hence can protect themselves against measures to increase their accountability (for example, by blocking the creation of regulatory bodies, or failing to publish transparent data); second, in most cases (and notwithstanding nominal contractual or licensing arrangements), they are essentially immovable, so that the threat of removal does not exist, or at any rate would

require legislative change; and third, comparative benchmarking is not possible, because there is no-one to compare them against. We see variants of this situation in Senegal, Uganda, Rwanda, and Malaysia.

Conversely, single national utilities offer advantages, including sufficient size and thus financial capacity to support specialized staff and units, and ability to flexibly shift resources across the country to meet requirements. In order to increase the accountability of single national utilities, we suggest the following possible models:

- 1)** Establishment of an independent regulator by national government: this has been seen in Rwanda and Malaysia. Utility pushback against this option is likely, since single national utilities typically have a national monopoly (as seen in Senegal and Uganda). But this is certainly an option available to national government.
- 2)** Where government opts against an independent regulator, an alternative is for national or local government to impose strong public reporting requirements on the utility, ideally backed up by some sort of external control to establish honesty and rigor in reporting. This could be supported by creation of an internal unit with regulatory/audit function, with mechanisms in place to secure freedom from senior management pressure, and a professional ethos of critical rigor: Johannesburg Water (though not itself a national utility) provides a strong example of how to achieve this. In the case of national utilities which do not publish detailed reports on performance, it seems likely that such a requirement would improve accountability and consequently improve service delivery. However, if there is no political will for independent regulation, it is perhaps unlikely that there will be political will for a quasi-regulatory model of this type.

- 3)** Whether under an independent regulator or under rigorous public reporting requirements, an interesting approach noted by sector specialist Richard Franceys<sup>28</sup> is to do comparative benchmarking among a national utility’s service areas. This approach is applied by national utilities including NWSC in Uganda. Alternatively or additionally, a national utility can participate in international comparative benchmarking initiatives (see for example ESAWAS 2018).

<sup>27</sup> Indeed, if the global political economy is held to be unjust, it might be argued that it is wealthy nations and corporations who should be held accountable; or at any rate, that part of the responsibility lies with them. Nonetheless, such responsibility and accountability (if accepted) would likely be assessed at a more generic level, not with specific reference to urban sanitation.

<sup>28</sup> Interview of 30 June 2021 with Richard Franceys, currently leading an IWA study of regulation in the context of CWIS.

## Subnational utilities

Accountability is arguably less challenging when there are multiple utilities, as in countries like Kenya, Tanzania and Zambia, where utilities are individually less powerful. Comparative benchmarking is more straightforward, but challenges remain.

First, how can the performance of individual utilities be tracked in ways which are both rigorous and fair? If a utility is underperforming on sanitation coverage, this may be because of poor management; or alternatively, it may be because it is starting from a lower baseline and/or faces more serious technical, financial, or political challenges. Regulators can take this into account through careful selection and interpretation of metrics, and by setting utility-specific performance improvement targets: the aim should be a) to assess service levels and service quality in each utility's area, but also separately b) to assess that utility's performance in relation to its specific resources and challenges. The system needs to be fair: as noted by one of our respondents,<sup>29</sup> an unfair system can be demotivating not motivating ("*only the gold medal winner will be happy*").

Second, there needs to be careful consideration of the relationship between performance tracking and positive or negative consequences. Consequences should be applied to the utility's senior management or Board, not to the utility per se: if a utility is performing badly, that's not the fault of the people who live in that utility's area, and they shouldn't suffer additionally as a result of reduced funding to penalize the utility's under-performance. In practice, this is complex: an under-performing utility will almost always find it more challenging to obtain finance (public, donor, or commercial). But this situation can be made less severe by applying that negative consequences for under-performance to senior management and/or Board, not to the utility itself. These consequences can be relatively minor, or in extreme cases could extend to dismissal: progressive regulators like WASREB and NWASCO have the statutory power to require dismissal of senior management and/or Board. However, use of this regulatory power may often be politically fraught.

Incentivization is about carrots as well as sticks: senior managers who perform well should be rewarded, and indeed there are strong arguments for rewarding not just senior managers, but all staff. In many contexts utility staff are governed by public sector rules around remuneration, so that performance-related



Image: Sludge drying beds under construction. Credit: B. Koelsch

salary increases or bonuses may not be possible. Alternative approaches which may be highly valued include prestige awards, or training and travel opportunities.

## Local governments

Contexts in which local governments are the mandate holder for sanitation (sewered and/or non-sewered) again raise specific accountability challenges. Importantly, local governments are in most contexts elected bodies, directly answerable to their electorate, and in institutional terms subordinate to a Ministry of Local Government and to the national or a subnational parliament: there may thus be strong political and institutional resistance to oversight by a regulatory body associated with the Ministry of Water, as has been seen for example in South Africa.<sup>30</sup> Nonetheless, there are multiple cases of regulatory functions acting on local government sanitation service providers, or of countries which are introducing regulatory functions designed to have oversight over local governments.

Brazil, organized on a Federal-State-Municipality model, offers interesting lessons. Responsibility for sanitation was until recently unclear, with neither municipalities nor States clearly assigned responsibility in the 1988 Constitution: municipalities were allowed but not required to provide basic services. However, Federal Law 11445 of 2007 clearly assigns responsibility for sanitation to municipalities. Models of water and sanitation provision vary widely, but most Brazilian cities are served by State-owned water and sanitation companies, with private sector involvement currently minor: for example, the São Paulo State-owned SABESP provides water and sanitation services to the city of São Paulo and about half of the 645 municipalities of São

29 Interview of 23 June 2021 with Dr Abdulla Al-Muyeed of DPHE.

30 Muller M (2020) Money down the drain: Corruption in South Africa's water sector. Water Integrity Network / Corruption Watch. Page 27 A study of corruption in the South African water sector (Muller 2020) states in reference to the nationally managed Blue Drop evaluation process: "efforts to name and shame municipalities that were not complying with regulations were not appreciated".

Paulo State. Some States (including São Paulo and Rio de Janeiro) have Regulatory Agencies for Energy and Sanitation: for example, São Paulo's ARSESP has regulatory oversight over SABESP and municipalities (all SABESP municipalities and some non-SABESP municipalities).<sup>31</sup> Other States, including Minas Gerais, rely on a combination of State-owned companies, municipality-owned companies, and municipal departments: for example, northern Minas Gerais State is served by the State-owned COPASA, while the city of Juiz de Fora is served by the municipality-owned CESAMA. In some cases, “inter-municipal regulators” have been created, bringing multiple municipalities under a single regulator. An example is AGESAN-RS, which groups 28 municipalities in the Rio Grande do Sul State: this is a small subset of the State's 497 municipalities, but brings together most of the major urban areas.

Within this very complex and diverse institutional framework, Brazil has a strong tradition of data transparency and oversight, as seen in the multiple regulatory agencies and as exemplified (for example) by the website of CESAMA, with extensive data publicly available and facilitated processes for consumer/citizen complaint and feedback. Nevertheless, the highly fragmented and variable nature of regulatory oversight has led to the recent creation (under Federal Law 14026 of 2020, referred to as the New Sanitation Framework) of a Federal “meta-regulator”, the Agência Nacional de Águas e Saneamento Básico (ANA), which will set standards for application by subnational regulators at municipal, intermunicipal, or State level.

### Box 9: Intermunicipal regulation in Brazil: the case of Juiz de Fora

Water and sanitation services in the Brazilian city of Juiz de Fora (Minas Gerais State) are provided by a company called CESAMA, which is majority-owned by the municipality, but which operates with significant autonomy. This is only one of various models seen in Brazil: in fact, municipal company of this type are relatively unusual, with sanitation services more commonly being provided by a municipal department or by a State water and sanitation companies. In Juiz de Fora, as in most Brazilian cities, sanitation is largely sewered, and desludging services are not provided by CESAMA: the situation is thus different from most cities in sub-Saharan Africa and South Asia, where universal or near-universal sewerage is not plausible in the short- to medium-term, and indeed may never happen. Nonetheless, the intermunicipal regulatory model seen in Juiz de Fora is potentially applicable in contexts in which sanitation is provided through a combination of sewered and non-sewered technologies. About 6% of the population in Juiz de Fora is not connected to the sewer network, and most of this 6% are slum-dwellers (i.e., residents in *favelas*, accounting for about 8% of Juiz de Fora's total population). According to our CESAMA respondent,<sup>1</sup> these people cannot be easily served because it is illegal to provide a sewer connection to residents without formal land tenure: if CESAMA provided services to these areas, they would risk being taken to court by the Public Prosecutor's Office (Ministério Público) for administrative misconduct. Our CESAMA respondent noted his strong disagreement with this interpretation of the law. CESAMA was until recently under the remit of the State regulator ARSAE; however,

in 2020 CESAMA opted to switch to a different regulator, ARISB. ARISB is an intermunicipal sanitation regulator, currently acting across 29 of the State's 853 municipalities (including Juiz de Fora, the fourth-largest city with population around 500,000, but not including the State's larger cities). Service providers in Brazil are obliged to submit to a regulator, but they can choose which: as per our respondent, this decision was made because the State regulator ARSAE is pushing for privatization, in line with wider national pressures towards privatization under Brazil's “New Sanitation Framework” (see text). The details and implications of Brazil's New Sanitation Framework are beyond the scope of this study (see for example Zanchim & Teixeira 2020), but it is relevant to note **a**) that it pushes for privatization of municipal sanitation departments and municipal sanitation companies, and **b**) that it sets up a national “meta-regulator” (Agência Nacional de Águas e Saneamento Básico, ANA) charged with setting national standards to be adopted by the multiple State and intermunicipal regulators. We can question whether the push for privatization is justified: there is no evident reason why a municipal company should not be able to achieve strong results, as seen in Juiz de Fora. But certainly, national unification of regulatory standards makes sense in Brazil's institutionally complex sanitation sector. In terms of national coordination, the Brazilian experience is particularly relevant for large countries with a highly devolved federal structure, like Nigeria and India. The specific model seen in Juiz de Fora (a municipally-owned company with a high degree of autonomy, and subject to a higher-level regulator) is potentially of wide application.

1 Interview of 29 June 2021 with Julio César Teixeira, CEO of CESAMA.

In South Africa, notwithstanding widely recognized failings in regulatory control of municipalities (i.e., lack of regulatory power to apply negative sanctions to underperforming municipalities), the Blue Drop assessment program which ran from 2009 to 2014 was a very strong example of comparative tracking of municipalities (though it collected information on water quality, not sanitation). The agency responsible for Blue Drop was the national Department of Water and Sanitation, which has a regulatory role. Trends between 2009 and 2014 revealed a substantial decline in water quality. Opinions differ as to why the program was stopped: it may have reflected political pressure to stop reporting bad news; it may have been an act of protest and desperation by a regulator observing serious decline but unable to respond in any way (see Muller 2020, Mail & Guardian 2021). Independently of this, the highly respected South African figure Neil McLeod has indicated that the Blue Drop survey was rigorous and widely valued in the sector. In February 2021, South African President Cyril Ramaphosa indicated the intention to create an independent regulator and revive this program.

### 3.2 What are specific approaches for achieving safely managed sanitation services?

As per the JMP service ladder, “basic” sanitation services are those in which the containment facility hygienically separates excreta from human contact,<sup>32</sup> whereas “safely managed” sanitation services additionally require that excreta are either safely disposed of in situ, or removed and treated offsite. In general, “safely disposed in situ” is not an option in dense urban environments, and effective Citywide Inclusive Sanitation therefore requires safe removal, adequate treatment, and either safe disposal or safe reuse. This may be achieved by a sewerage network, or by a fecal sludge management system (i.e., desludging and vehicular transportation), or by some sort of container-based sanitation model (likewise requiring vehicular transportation).

Safely managed sanitation raises a number of specific accountability challenges. Most importantly, there is a complex interface between household responsibilities and service provider responsibilities for non-sewered sanitation. To achieve the public health goals of Citywide Inclusive Sanitation, non-sewered household facilities must provide not only a) elimination of household contact with excreta (“basic sanitation”), but also b) adequate containment such that there is no contamination

of groundwater or the local environment, and c) adequate design and access so that the facility can be emptied; furthermore, d) the property owner must empty the facility regularly. In almost all contexts these requirements are considered the responsibility of the property owner, not the service provider; but the service provider can’t deliver Citywide Inclusive Sanitation unless these requirements are met. Currently, these requirements are rarely met, for reasons including typically weak enforcement of regulations requiring property owners to have sanitation facilities which enable containment and facilitate emptying. This is a major problem: in the words of our NWASCO respondent Chola Mbilima, “*the thing about non-sewered sanitation is that it only works if all the links in the chain are working*”. In our case studies above we have documented various approaches to this puzzle. In Lusaka and other Zambian cities, the regulator is working closely with utilities and the city council to improve regulation on households, and in some instances “the utility is stepping into the local government space” to subsidize household facilities for the poor, so that these fully contain waste and are accessible for emptying. In Malaysia, as discussed in Section 2.1.2, lack of adequate enforcement of regulations requiring households to empty septic tanks has had major impacts on the sector: the previous emptying-on-demand model failed centrally because of inadequate demand, and this has very recently been changed to a scheduled model with households required to empty as per the stipulated schedule.

Good containment and regular emptying are particularly important in public health terms a) where latrine and septic tank leachates can enter groundwater that is used for drinking water supply (as in Kampala), b) where toilets frequently discharge directly to the street, or to open street drains (as in Dhaka), or c) where parts of the city are subject to frequent seasonal flooding or waterlogging (as in Lusaka and Dakar). Resolving these issues is a major challenge for Citywide Inclusive Sanitation, not least because poor households often cannot afford the costs of constructing high-quality septic tanks that provide adequate containment and desludging access, coupled with the costs of emptying those septic tanks regularly. In fact, it is often the case that the location is simply not appropriate for a septic tank, even if of high quality. Discussing alternative technologies lies beyond the central focus of this paper, but it is worth noting that container-based sanitation technologies (which contain all waste including liquid fractions) are a highly attractive option in this regard.

<sup>32</sup> In fact this is slightly more complicated: the JMP also includes an additional category of “limited”, defined as a sanitation facility meeting the requirements for “basic” sanitation, but shared by two or more households. Currently, “limited” is treated as a lower category than “basic”, though this is questionable for various reasons: see Evans et al. (2017) and WSUP (2021).

**Table 4. Summary of key types of accountability approach applicable to the three main categories of mandated service authority (see parallel paper on responsibilities). Split mandates (where different authorities have the mandate for sewered and non-sewered sanitation) may require hybrid approaches.**

Mandate holder	Accountability approach	Typical characteristics
<b>National utility</b>	1) Ministerial regulation	Ministries tend to negotiate policy-based performance indicators, targets, financing and revenue conditions. Examples include Senegal and Uganda. Financial independence: typically low. Political autonomy: typically low.
	2) Independent regulator	Regulatory agency assigned to hold utility accountable. Regulator has right to raise core funding from utility, and to govern tariff-setting and other decisions made outside of the electoral political system. Leadership and staff positions managed by politically appointed board of regulator. Can be sector-specific or regulate across sectors. Examples include Malaysia, Rwanda, and Lesotho. Financial independence: typically high. Political autonomy: typically medium-high.
	3) Consumer complaint/ feedback mechanisms	Widespread, though with varying degrees of development and effectiveness. Necessary, but unlikely to be effective on its own.
<b>Subnational utility</b>	1) Regulation-by-contract, typically between utility and LG	May be effective if non-renewal of contract is a real possibility. An example is Dhaka in Bangladesh. Financial independence: typically low. Political autonomy: typically low.
	2) Independent regulator	Regulatory agency assigned to hold utilities accountable. Regulator has right to raise core funding from utilities, and to govern tariff-setting and other decisions made outside of the electoral political system. Leadership and staff positions managed by politically appointed board of regulator. Can be sector-specific or regulate across sectors. Potentially very powerful, with comparative performance tracking providing a strong basis for accountability. Examples include Kenya, Tanzania and Zambia. Financial independence: typically high. Political autonomy: typically medium-high.
	3) Consumer complaint/ feedback mechanisms	Common, though with varying degrees of effectiveness. Necessary, but unlikely to be effective on its own.
<b>Local government (LG)</b>	1) Electoral accountability (LGs which don't deliver can be voted out)	Universal in democratic regimes. Possibly limited effectiveness, because elections range over multiple issues, not just sanitation.
	2) Sanitation-specific citizen participation	Widespread and valuable, but unlikely to be sufficient on its own: effectiveness depends on whether citizen voice translates into consequences.
	3) Consumer complaint/ feedback mechanisms	Widespread, though with varying degrees of effectiveness. Necessary, but unlikely to be effective on its own.
	4) City rankings and assessments	Somewhat common (e.g. India's "Clean Cities" awards, managed by the Ministry of Urban Development). Effectiveness depends on translation to consequences.
	5) Self-regulation	Common. Often essentially equivalent to non-regulation, so ineffective; however, strong examples exist (e.g. Johannesburg in South Africa).
	6) Independent regulator	Uncommon (e.g. Azores, some Brazilian cities, Mozambique moving in this direction). Potentially very powerful. Financial independence: varies. Political autonomy: potentially high.

Independently of the technology used, cities need to find ways of overcoming these challenges. Almost universally, municipal regulation of household sanitation facilities needs to become more effective, and this likely needs to be combined with subsidy for households who cannot reasonably afford the costs of an effective containment structure or of emptying. Where a utility is responsible for emptying and the municipality for regulating household containment, there needs to be close coordination between the two entities, as seen in Zambia. Improving desludging services without improving containment is unlikely to achieve effective Citywide Inclusive Sanitation.

### 3.3 What are specific approaches for achieving inclusion of the poorest?

Accountability mechanisms that favour inclusion of the poorest in urban sanitation services remain at an embryonic stage in most countries in sub-Saharan Africa and South Asia. This relates to the embryonic status of accountability mechanisms around non-sewered sanitation: since accountability around non-sewered sanitation is typically very weak, and since most poorer urban citizens depend on non-sewered situation, the poor have few avenues for redress.

The clearest approach to this is seen in Kenya where, as has been well-documented, the regulator has introduced specific performance indicators around water and sanitation services in low-income areas, commonly referred to as “the 10th KPI”. Respondents from the regulators NAWASCO in Zambia and AURA in Mozambique are aware of this Kenyan model, and express clear interest in developing analogous models in their own countries. The pro-poor metrics have now been collected and published for 3 years, for over 50 of Kenya’s 82 utilities, including all utilities defined as “very large” or “large”. The following four dimensions are currently assessed (where LIA = Low Income Area):

- **Governance (weight 30%):** Three components, namely Adoption of a pro-poor policy, Establishment of a pro-poor unit, Board representation/ constitution
- **Access and service levels (30%):** Four components, namely Level of access in LIAs (water); Level of access in LIAs (sanitation); Growth in access over time; Service levels with focus on rationing programs
- **Planning (20%):** Three components, namely Availability of LIA specific plans (development and implementation); Mapping (Baseline and regular updating); Pro-poor business model



Image: Community consultation process, Ghana. Credit: Jesse Coffie Danku, SNV

- **Financing (20%):** Three components, namely LIA budget drawn from the plan; Resource provision (disbursements) vis a vis budget; Equitable allocation of financing

WASREB gives an annual “Pro-Poor Award” to the best-performing utility on the pro-poor service KPI. Respondents have indicated that “prestige” awards of this type have real incentivizing value, and have also suggested that the pro-poor assessment is consequential for utilities, helping them to access donor funding.

As at 2021, pro-poor performance is thus extensively tracked; but it is not yet incorporated into the overall rank score of utilities. WASREB indicates that this is the intention, with the weighting for pro-performance within the overall ranking yet to be determined.

We also note that Kenya’s tracking of pro-poor performance is greatly facilitated by existing high-quality mapping of low-income areas: these are formally defined and comprehensively boundary-mapped under the WASREB/ WSTF-managed Majidata program.<sup>33</sup> The existence of such mapping not only facilitates poor-specific performance monitoring of utilities, but also facilitates investment targeting to low-income areas. Urban low-income areas tend to be relatively well-delineated in Kenya, so mapping is more straightforward than in countries where low-income urban households are more widely scattered across the city, or where low-income settlements are well-delineated but small and/or transient. Nonetheless, in all contexts, improved mapping of low-income areas (or more specific identification of low-income households) can be a strong basis for accountability in Citywide Inclusive Sanitation.

33 <http://majidata.go.ke/>

## “Regulators committed to better services for the poor can be a powerful driver of higher-level commitment.”

Finally, we note that regulators play a role in advancing inclusion not only through pro-poor accountability mechanisms, but also by creating tariff structures that are affordable.

### 3.4 How can higher-level accountability be strengthened?

This paper focuses on the accountability of mandated service providers. However, as already noted in the introduction to Section 5, real accountability extends higher: if mandated service providers are not adequately resourced and supported by government, we must consider that the real failure is a failure of government, and that it is government who should be held accountable, not the service provider.

We offer no easy answers to this. It is widely understood by service providers and by regulators that the fundamental problem is lack of adequate government budget allocation to sanitation, and particularly to non-sewered sanitation. The accountability of governments to their citizens, including the urban poor, lies outside the central scope of this paper, and is clearly a deeply complex issue involving multiple questions, including questions relating to optimal use of a limited tax base, appropriate response to unplanned and unauthorized urban settlement, and wider questions of democracy, inequity, corruption, and citizens' rights. Service providers, regulators, and other actors in the sector must continue to push for greater allocation of resource to sanitation for the urban poor, and this will continue to face pushback from opposing viewpoints and vested interests.

However, we consider that many of the accountability mechanisms described in this paper, though focused on accountability of the mandated service authority, are likely to be effective in strengthening the accountability of government: a clear example here is data collection and transparency around service levels. Furthermore, increasing the accountability of service providers can have knock-on effects higher up: utilities and municipalities pushed to better serve the poor are likely to shout more loudly for the necessary government support, and regulators committed to better services for the poor can be a powerful driver of higher-level commitment.



Image: Sludge drying beds under construction. Credit: B. Koelsch

## 4. Conclusions and recommendations

Drawing on the various cases described in this paper, we put forward the following key findings and recommendations for strengthening the accountability of mandated service providers in the context of Citywide Inclusive Sanitation:

**Accountability for non-sewered sanitation, and services for the poor, needs to be a central focus.** We have here described some very positive cases of increased attention of regulators and other stakeholders to non-sewered sanitation, and to services for the urban poor. These are very encouraging steps forward, but accountability for non-sewered sanitation is at best embryonic, and in many cases still essentially non-existent. This ties closely to mandates for non-sewered sanitation: in very few cases do we see clear acceptance of non-sewered sanitation as a public service accorded the same status as sewered sanitation. Until sewerage and non-sewered sanitation are treated equally, we are unlikely to see the true accountability required for Citywide Inclusive Sanitation.

**Merely “enabling” the private sector is unlikely to be sufficient.** A number of countries are making significant progress in bringing non-sewered sanitation, and more specifically desludging services, into the regulatory framework. But often, the service delivery model is centered around private sector enablement and control through licensing: private desludging operators can only obtain and retain a license if they can demonstrate a) that a stipulated

proportion of the households they serve are low-income and b) that they are disposing of sludge safely. A model of this basic type is being applied or considered by multiple cities that are beginning to take non-sewered sanitation more seriously, and it can potentially be supported by subsidy inputs to low-income households, to part-pay emptying costs. However, in the absence of very substantial subsidies this is *not* a public service model (in contrast with sewerage, which is typically a heavily subsidized public service available to a small minority): true inclusion and true accountability probably requires public *contracting* of desludging operators, not mere licensing.

**Accountability for non-sewered sanitation needs to pay strong attention to containment.** There are strong links between service provider responsibility for desludging, household responsibility for containment and desludging, and wider accountability for Citywide Inclusive Sanitation. If we want CWIS, to what extent can we consider that containment and desludging is solely a household responsibility? Clearly, in many locations low-income households are unable to afford sanitation facilities which provide good containment and desludging access, and unable to afford the costs of regular desludging. Meanwhile, and almost universally, municipal bylaws around the quality of the sanitation facility, and around the requirement to empty, are inadequately enforced (often essentially because it’s unreasonable to enforce something which is unaffordable). Again,

## “Strengthening transparency is fundamental for accountability, and a relatively easy win.”

this needs to be seen in the context of massive direct and indirect subsidy to sewerage: why is subsidy being given to wealthy sewerage households, but not to poor non-sewered households? Utilities, municipal governments, and national governments need to work closely together to find ways forward.

### **Strengthening transparency is fundamental for accountability, and a relatively easy win.**

Regardless of the institutional structure, there should be collection and transparent publication of detailed data on sanitation service levels and service quality. Collecting and publishing detailed data on sanitation service quality, with specific metrics for low-income areas, is a core requirement for accountability, and a relatively easy win. Beyond sanitation-specific data collection, regular citywide surveys of residents' satisfaction with the full range of basic services can be delivered at relatively low cost, and can make strong contribution to accountability.

### **Demand should be viewed as central.**

Demand is often understood as willingness-to-pay. But in the context of public services, there is a more fundamental issue: in order for Citywide Inclusive Sanitation to happen, people living in low-income settlements (including informal settlements) need to expect and demand desludging as a public service, just

as they expect and demand garbage management services, and just as the city's wealthier residents expect and demand sewerage services. Certainly there are political economy challenges here: government is unlikely to encourage people to demand a public service that is not currently being provided. Development partners can perhaps play a role here, for example supporting the delivery of surveys of satisfaction with basic services, as per the Asivikelane initiative in South Africa (see Section 2.8). Encouraging an expectation of services is critical, and can build the foundations of a “social contract” under which a city's residents not only demand services, but also recognize their own corresponding responsibilities.

**Finally:** regulators are a key link between upward and downward accountability. Effective regulators “push both ways”, mediating upward accountability to government and downward accountability to consumers and citizens more widely (while at the same time aiming to work with, not against, service providers). Balancing these different relationships is a complex balancing act, and regulators need to find that approach which is best suited for achieving near-term real improvement in sanitation for the poor.

## Bibliography

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Amin N et al. 2019 Quantitative assessment of fecal contamination in multiple environmental sample types in urban communities in Dhaka, Bangladesh using SaniPath microbial approach. PLOS ONE 14(12): e0221193.

ESAWAS (2018) Regional benchmarking of water supply and sanitation utilities, 2017/2018 report.

ESAWAS (2019) Regulation Strategy and Framework for Inclusive Urban Sanitation Service Provision Incorporating Non-Sewered Sanitation Services. <https://esawas.org/index.php/en/list-all-categories/download/8-sanitation/26-regulation-framework-and-strategy-for-inclusive-urban-sanitation-service-provision>.

ESAWAS (2021) Citywide Inclusive Sanitation. <https://esawas.org/index.php/en/publications/sanitation>

Evans B et al. (2017) Limited services? The role of shared sanitation in the 2030 Agenda for Sustainable Development. *Journal of Water, Sanitation and Hygiene for Development* 7 (3): 349–351

Freire D et al. (2020) Bottom-up accountability and public service provision: evidence from a field experiment in Brazil. *Research & Politics*, 7.

Gould C & Brown C (2020) Sanitation Challenge for Ghana Dignified City Award (Stage 2): Final Evaluation Report. ITAD.

Heller L (2018) The principle of accountability in the context of the human rights to safe drinking water and sanitation. Report of the Special Rapporteur on the human rights to safe drinking water and sanitation, presented at the 73rd session of the UN General Assembly.

IBP (2020) Voices of South Africa's Informal Settlement Residents during the COVID-19 Crisis. International Budget Partnership. <https://www.internationalbudget.org/covid-monitoring/>

Johannesburg Water (2021) Integrated Annual Report 2019/2020. <https://johannesburgwater.co.za/wp-content/uploads/2021/06/IAR-Joburg-Water-Final.pdf>

Mail & Guardian (2021) Why we need the Blue and Green Drop reports: 'Everyone in SA lives downstream from a sewage discharge point'. <https://mg.co.za/environment/2021-02-17-why-we-need-the-blue-and-green-drop-reports-everyone-in-sa-lives-downstream-from-a-sewage-discharge-point/>

Muller M (2020) Money down the drain: Corruption in South Africa's water sector. Water Integrity Network / Corruption Watch.

NWASCO (2018) Urban Onsite Sanitation and Faecal Sludge Management: Framework for Provision and Regulation in Zambia

NWASCO (2020) Urban and Peri-Urban Water Supply and Sanitation. Sector Report. <https://www.nwasco.org.zm/index.php/media-center/publications/urban-and-peri-urban-wss-sector-reports/send/12-urban-and-peri-urban-wss-sector-reports/73-nwasco-sector-report-2020>

OECD (2015) The Governance of Water Regulators Results of the OECD Survey on the Governance of Water Regulators. In "The Governance of Water Regulators".

Paul S (1991) Accountability in public services: exit, voice, and capture. Policy Research Working Paper Series, no. 614. Washington, DC: World Bank.

RURA (2020) Draft Guidelines for Faecal Sludge Management. <https://rura.rw/index.php?id=231>

Serra D (2011) Combining top-down and bottom-up accountability: Evidence from a bribery experiment. *The Journal of Law, Economics, & Organization* 28(3): 569–587.

SIWI/UNICEF/WHO/IADB (2021) The WASHREG Approach: An Overview. Stockholm and New York.

The Independent (2019) 'Dhaka WASA MD trashes TIB report on drinking water'. 21 April 2019. <http://www.theindependentbd.com/home/printnews/196566>

Water Integrity Network (2021) Water Integrity Global Outlook 2021: Urban Water and Sanitation.

World Bank (2004) World Development Report 2004: Making Services Work for Poor People.

WSUP (2021) Quality Check: How can we ensure sanitation achieves health and quality of life outcomes in low-income areas

WSUP Advisory (2021) How can African national institutions incentivise subnational actors to improve water and sanitation in low-income urban areas? Report for the World Bank (Water Global Practice Water Supply and Sanitation Global Solutions Group), as yet unpublished.

Yoshikawa LF & de Carli Rosellini C (2020) Brazil's basic sanitation regulatory framework. International Bar Association. <https://www.ibanet.org/article/90EB44B0-5346-4E00-993F-2DE6543708D7>

Zanchim KL & Teixeira B (2020) The new regulatory framework: perspectives for water and sanitation in Brazil post-Covid-19. International Bar Association. <https://www.ibanet.org/article/EA963D1D-66DF-4B41-AA87-A75744E98A2D>

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