Water Research Commission

Review of urban sanitation in the Western Cape

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1 Soft constraints

1.1 Understanding the context

Universal access to sanitation remains an elusive goal globally as well as domestically in South Africa. In urban areas, the sanitation backlog is primarily for informal settlement and backyard dwellers (CCT, 2013). While each informal settlement has unique characteristics that should not be overlooked in planning for services, there are also many commonalities. Informal settlements are generally characterised as being unplanned areas of human settlement where there is typically a lack of secure tenure, infrastructure and social services. They are often located in marginal areas seen as unsuitable for residential development, *e.g.* road reserves, flood-prone areas, former landfills, steep or unstable slopes, and residents often struggle with high levels of poverty and unemployment.

Backyard shack dwellers represent a separate but related response to a shortage of affordable housing opportunities in urban areas, which also contributes to the challenge of providing universal access to decent sanitation in the Western Cape. Although statistics in Cape Town indicate that there are a larger number of households living in informal settlements (13.5%) than in backyard dwellings (7%) (CCT, 2013), the issue of servicing backyard dwellers should not be overlooked. Inn Cape Town, a separate backyard servicing programme has been developed for backyard dwellers on city-owned properties (CCT, 2014). Backyard shacks are dwelling structures erected in the backyard of a formal dwelling that do not adhere to building regulations. There is typically either a familial relationship or landlord tenant relationship between the formal household (owning or renting the titled property) and the informal household.

Sanitation and housing provision are closely linked institutionally and through national housing policies, which call on water service authorities to work "in an integrated manner [with human settlements] to plan and implement sustainable sanitation services in relation to new housing developments planned at national and provincial levels" (DHS & SALGA, 2012:18). The links between sanitation, housing and other services such as water supply, drainage and solid waste, however, represent one of the challenges of sanitation service delivery since it requires coordination between a wide array of stakeholders and functions such as to protect public health, the environment and personal dignity (EAWAG & SANDEC, 2000). Some of the challenges to sanitation service delivery relate to 'soft' constraints, often relating to social and institutional barriers (Mitlin, 2015).

1.2 Roles and responsibilities of different stakeholders

Some of the primary stakeholders in sanitation service delivery including a brief description of their roles are listed in Table 1. Other stakeholders may be involved, but usually fall under these broad categories. General roles and responsibilities are described in the second column.

Table 1: Roles and responsibilities of various stakeholder groups in sanitation provision (Taing *et al.*, 2013; Pan *et al.*, 2015)

Sanitation stakeholders	Roles/Responsibilities
Government officials	• Usually the funder • Regulatory authority • Primary planning authority • Oversees implementation and operations and maintenance (O&M) • Oversight of contracts where services are outsourced
NGOs and CBOs	• Often act as social facilitators between government officials and community members • Usually advocate on behalf or alongside community members and help with organising community members • Sometimes provide capital funds for projects and play a support role
Service providers and suppliers	• Contractors (construction and O&M-related activities) • Consultants • Product development and supply of sanitation hardware
Community leaders	• Often act as social facilitators between various stakeholder groups • Can be officially elected representatives such as ward councillors and street committee members, or informally recognised 'elders', or leaders of CBOs
Community members	• Users of sanitation services • Responsible for day to day cleaning and some O&M activities depending on the type of technology
Researchers	• Play a supporting role to various stakeholder groups • Often assist with assessments of services or providing specialised knowledge

1.3 Social Constraints

Given the large number of stakeholders that can be involved with sanitation service delivery, it is not surprising that social constraints are some of the most prominent. Growth in informal settlements and backyard dwellings is perceived to be a major

service delivery challenge by government officials. One tension that exists is the desire and mandate for local government to provide basic services without encouraging the growth of informal settlements and 'illegal squatting', which often influences decisions around appropriate technology choice given a lack of legal tenure for most informal settlement and backyard dwellers, *e.g.* services on private land generally are mobile and do not require permanent infrastructure installations.

In relation to sanitation technologies, one of the major constraints to implementing 'alternative' sanitation systems is the pervasive perception that any system other than a flush toilet is inferior (Matsebe & Osman, 2012; Roma *et al.*, 2013). Dry sanitation systems such as the urine diversion dry toilets (UDDTs) used in eThekwini or the Mobisan or Afrisan urine diversion dehydration (UDD) systems used in Cape Town require a high level of user engagement. 'User education' is required in terms of operating and maintaining all sanitation systems, but particularly the UDD systems. In the case of UDD systems, however, part of the education programmes is also convincing users to accept or to buy-in to an alternative sanitation system, and decreased satisfaction over time may be linked to a failure to meet people's post-Apartheid expectations for improved living standards (Roma *et al.*, 2013).

Another key social constraint is the potential lack of a socially cohesive community to work with. Although residents may share a physical space as well as common cultural or socio-economic circumstances, the assumption that this is enough to bind them together around a common purpose or interests is not always correct. Within a single settlement or between neighbouring settlements, there can be factions and division based on political, religious and/or racial differences. As a result, any perceived preferential treatment or failure to consult with any particular faction or sub-group can become very problematic and prevent or delay sanitation service delivery from happening. For example, in Kosovo informal settlement, one of the largest informal settlements in Cape Town, researchers observed that bipartisan conflicts amongst Kosovo's community leaders "severely undermined the implementation" of planned service upgrades (roads, stormwater, sanitation, water supply) and caused major project delays, primarily related to the allocation of jobs related to the upgrades (Taing *et al.*, 2013; Beauclair, 2010).

Conflicts related to sanitation service delivery often relate to the allocation of jobs. Given high levels of unemployment and poverty in informal settlements, job opportunities are highly coveted and labour disputes can derail or seriously delay projects. Furthermore, if jobs are short term contracts and designed to be offered on a rotating basis, such as under the Expanded Public Works Programme, the changeover period can be particularly contentious resulting in a gap in service delivery. Contractors who are hired to act as service providers for O&M services also add another layer of complexity to the hiring process and setting wages, which can also result in conflict between different stakeholders, *e.g.* the Sannicare worker "poo protests" in 2013[1], which coincided with general sanitation service delivery protests. Outsourcing of services to private contractors as well as the local

[1] In 2013, Sannicare employees responsible for cleaning communal toilets in several informal settlements along the N2 blocked the highway with burning tires and dumped faeces on and alongside the road. The protests erupted over salary and hiring disputes between the employees and the sub-contractor responsible for hiring. Some city staff were also threatened and physically attacked.

government's responsibility for overseeing contractors is another area of conflict between communities and local government, which has been highlighted by the Water Dialogues (2009) and the Social Justice Coalition's 'social audits' (SJC, 2013).

Another social constraint is that there are different expectations regarding what decent sanitation services should include that may differ between residents and municipal officials. Mismatched expectations and miscommunication, were demonstrated by incidences such as the Makhaza and Moqhaka 'open toilet saga' where there were agreements for residents to erect their own toilet structures in exchange for more toilets, but not all residents were able to do so (Gitahu, 2011), and some claimed that they were they not aware of the agreement. Another result was also heightened public sensitivity around the dignified sanitation debate and the intervention of the South African Human Rights Commission. Furthermore, as the only DA-led province in the country, the Western Cape is under particular scrutiny, and sanitation service delivery often becomes politicised.

Communal or public services add another layer of social complexity. Due to spatial or funding constraints, communal or public facilities are sometimes the only feasible option in informal settlements. Ensuring that everyone has access to communal facilities is not always straightforward. There are physical barriers that should be considered in designing sanitation facilities, such as ramps and wider stalls for physically disabled people, and also potential social barriers that need to be overcome such as security concerns or cultural stigmas towards certain individuals or groups. Given complex social environments:

> "crude ratios of toilets to households or of proximity to facilities is insufficient [to ensure access], as this fails to recognise residents' own perceptions of ownership… and the social relationships associated with these perceptions" (Hilligan *et al.*, 2012:30).

Thus, social relations and structures need to be taken into account when locating toilets as well as in allocating facilities to different households. Another potential issue with communal and public facilities is the risk of vandalism or theft of materials, especially high value materials such as copper pipes or brass fixtures and fittings. Using low-quality materials, however, comes with its own set of maintenance problems, which demonstrates one of the linkages between social and technical constraints.

An underlying social constraint that negatively affects sanitation service delivery is deeply ingrained mistrust between different stakeholder groups, particularly between community members and government officials. The Western Cape experienced an upward trend in service delivery related protests between 2007-2012, with a particular spike between 2011 and 2012 (Visser & Powell, 2012), which indicates the scale of dissatisfaction with service delivery and frustration with government. The mistrust is, however, not limited to community members and government officials, nor is it limited to different stakeholder groups. Even within the same stakeholder group, there can be mistrust as mentioned previously; there can be factions that may try to use service delivery to broker power or influence. Building trust between stakeholders and understanding and acknowledging complex social dynamics are important steps towards overcoming social constraints.

1.4 Institutional Constraints

Institutions are responsible for establishing protocol and regulations relating to sanitation service delivery and hygiene and sanitation practices. They can be of a formal or informal nature. One of the potential institutional constraints is a mismatch between formal and informal institutions. For example, informal versus formal methods of reporting and communicating often differ, which may lead to misunderstandings between stakeholders or a delay in reporting issues or sharing information. Collecting and sharing of data related to sanitation services for informal households can also be challenging given limited resources, particularly for smaller municipalities in the Western Cape. Cumbersome procurement procedures can also be a hindrance to implementing service delivery. In informal settlements, shacks can be built in a day as opposed to the much longer time frame it takes to complete most formal sanitation projects. The different pace at which informal institutions operate as opposed to formal institutions is a frequent point of contention.

As mentioned in Section 1.3, there are a large number of stakeholders involved with sanitation service delivery. Therefore, coordination between different institutions that stakeholders are part of is a major challenge. Non-governmental institutions have an important role to play, but they still need to coordinate with government institutions. For example, in Langrug informal settlement, which is part of Stellenbosch Municipality, NGOs (the Community Organisation Resource Centre and the Informal Settlement Network) and an academic institution (Worcester Polytechnic Institute) collaborated with residents through an inclusive design process to 'co-produce'[2] a waterborne communal sanitation facility. The municipality was aware of the project and signed a Memorandum of Understanding with the Langrug community in 2011 (Tshabalala, 2013), but the municipality played a minimal role in its development and subsequent O&M. The facility has been vandalised and fallen into disrepair over the course of two years despite community participation and investment, indicating that no single institution can single-handedly provide sustainable sanitation services. The challenge of maintaining partnerships between various stakeholder institutions in a volatile social environment is thus an important institutional constraint to keep in mind.

Within government, there are three spheres of government to contend with: national, provincial and local. Although local government is mandated with the responsibility for water and sanitation service delivery, "many municipalities, particularly in poor and rural areas, do not have the skills and capacity to implement their mandate" (SAHRC, 2014:16). Different municipalities have different levels of capacity to deliver sanitation services, and the provincial government may need to play a more active role in some municipalities than others. If a municipality does not have the capacity to deliver sanitation services, then provincial and/or national government may need to assist with additional funding and redeployment of staff (SAHRC, 2014). Clarifying roles and responsibilities for sanitation services and building stronger collaboration between the Western Cape Province and municipalities is an important component of

[2] To co-produce "refers to the joint production of public services between citizen and state, with… one or more elements of the production process being shared" (Mitlin, 2008)

addressing the sanitation challenge. Within the same sphere of government, there can also be coordination challenges due to unclear or overlapping responsibilities such as occurred between the Human Settlements Department and the recently restructured Department of Water and Sanitation, where the sanitation portfolio was exchanged back and forth between the two over a period of 10 years leading to policy gaps and a lack of clear leadership in sanitation planning at a national level that had ripple effects in other spheres of government.

In a similar vein, some of the coordination issues can also be attributed to the frequent institutional restructuring that has occurred in the Western Cape's largest municipality, Cape Town (Taing *et al.*, 2013). Frequent municipal restructuring and a correlation with high staff turnover makes it difficult to have continuity in projects, and also can result in a loss of institutional history and accountability for decisions made. Although, other Western Cape municipalities may have more stable institutional structures than Cape Town, restructuring and staff turnover are two institutional issues that should be flagged as potential constraints in any institution. Without institutional history and accountability, adapting sanitation services as necessary becomes more challenging, and there is a risk of repeating the same mistakes or failing to make adjustments resulting in system dysfunctionality.

1.5 Summary

'Soft' constraints to universal sanitation access relate to the people and institutions responsible for using, delivering and maintaining sanitation services. They can relate to people's perceptions, but also to the policy and socio-cultural environment in which services need to operate. Some of the most critical social constraints relate to negative perceptions of alternative sanitation systems, barriers to access, and mistrust between stakeholders. Key institutional constraints often relate to a mismatch between formal and informal processes and coordination of roles and responsibilities between different institutions.

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