



Implementing sanitation for informal settlements: Conflicting rationalities in South Africa

By Lina Taing

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Department of Political Studies
Supervisors: Vinothan Naidoo & Robert Cameron
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One of the things we're often struggling with in the water and sanitation section is that we'd love for there to be a magic bullet. We'd love for there to be a magic solution. And certainly companies and NGOs call me all the time, saying we found the thing, and I'd love to believe that can happen. But the fact is, that's not the way it works. It's a big, complicated sector. The needs are enormous. The challenges are huge... we've got to think less about what is the magic bullet and what is the best technology, and more about how to come up with a tailor-made solution that suits the capacity of the people we're trying to help.

Clarissa Brocklehurst, the United Nations Children's Fund (UNICEF) Chief of Water, Sanitation and Hygiene from 2007-2011, on technology-driven rationales in the sanitation sector (Frontline, 2014)

Sanitation is not simply a technical problem; it's a social problem with emotional overtones. It actually talks to political economy. How do you manage between poor residents, black political leaders and old white managers? You better get all those groups in—otherwise it won't work.

Mike Muller (2015: 285), the Department of Water Affairs and Forestry's Director-General from 1997 to 2005, on improving sanitation services in South Africa

Declaration

I, *Lina Taing*, prepared this original work to satisfy the PhD requirements of the University of Cape Town. I hereby declare that the work on which this thesis is based is my own (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being or is to be submitted for another degree at this or any other university. I authorise the University to reproduce for the purpose of research either the whole or any portion of the contents in any manner whatsoever.

To note, the material I present in this thesis is drawn from two studies funded by the Water Research Commission (WRC) on the challenges of providing services to informal settlements in South Africa. The reports emanating from the research contracts were:

- *TIPS for sewerage informal settlements: Technology, Institutions, People and Services* (Taing, Armitage, et al., 2013); and
- *Free basic sanitation in informal settlements: An ethnography of so-called communal toilet use and maintenance* (Taing et al., 2014).

This thesis builds upon the findings and arguments put forward in these research reports. I was the primary author of the reports, which I jointly authored. I present in this thesis empirical data that was previously featured in the WRC publications, though I have revised the descriptions and analysis of said data in this text to avoid plagiarism. Where necessary, I cite data gathered by my co-researchers and acknowledge their work in the *References* section. I use a modified version of Harvard conventions for referencing.

Signature:



Date:

7 December 2015

Abstract

From 1994 to 2008, South Africa's national government disseminated numerous policies, laws, regulations and strategies to support its objective of providing basic sanitation access to the urban poor by 2014. The state has yet to attain this objective—ostensibly due to poor municipal execution of national policy. This thesis challenges this assessment, as it overlooks how non-municipal actors have shaped implementation and ignores possible weaknesses in policy. After assessing the delivery of sanitation services in Cape Town informal settlements, I found that disputes among municipal implementers, policy beneficiaries and social advocates about broadly framed policy, as well as policy gaps in servicing informal settlements, contributed to the City's failure to achieve national objectives. The local actors' differences and policy gaps necessitated the re-formulation of sanitation policy and programmes in Cape Town according to conflicting rationalities that accommodated the 'lived' and 'practical' realities of servicing informal settlements. In light of these circumstances, this thesis argues that there is a disproportionate focus on turning national policy into practise—for this viewpoint misses how policy oftentimes is re-formulated according to local actors' perspectives and experiences. Understanding the complex interplay between policy rationales and implementation realities can contribute to more constructive means of effectively providing sanitation services for South African informal settlements.

Keywords: Implementation; right to basic sanitation; urban sanitation; informal settlements

Acknowledgements & dedication

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- My parents Ken and Lisa; siblings Khay and Diana; and Uncle Kimmy and Aunt Judy, for providing emotional (and some occasional financial) support to keep me afloat throughout my studies.

I dedicate this work to my eldest brother. Your premature passing has left an indelible impact on my life.

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Glossary & acronym list

Term/acronym	Definition
Afrikaans	Afrikaans is a Southern African language spoken primarily in South Africa and Namibia. It derives from Dutch and borrows words from the Khoisan, Malay, Portuguese and Bantu languages.
Afrikaner	An Afrikaner is a descendant of seventeenth and eighteenth century Dutch and Huguenot settlers.
ANC	The African National Congress is renowned for its resistance to apartheid rule. It is currently South Africa's ruling political party on a national-level and eight of the country's nine provinces; and is the main opposition party in the Western Cape province.
Apartheid	Apartheid was a legal system of racial segregation that was instituted in South Africa from 1948 to 1994.
Asset	' Assets are things owned (by a municipality for example) to which a monetary value can be attached. Municipalities generally have fixed assets and operating assets. Fixed assets include things that cannot be moved, such as land or buildings. Operating assets include everything that a municipality owns and uses in its operations, such as vehicles, computers, construction equipment and so forth' (DPLG, 2004: 41).
Backlog	The ' backlog is made up of the total amount of municipal infrastructure and services that should exist in terms of minimum standards, but have not yet been established' (DPLG, 2004: 41).
Basic municipal services	Basic municipal services are 'necessary to ensure an acceptable and reasonable quality of life and, if not provided, would endanger public health or safety or the environment' (RSA, 2000a: 14).
Bill of Rights	Called the 'cornerstone of democracy', the Bill of Rights is the second chapter in the <i>Constitution</i> (RSA, 1996a: 1245). It outlines the fundamental human rights of all South Africans.
Black buckets	Black buckets in South African sanitation delivery refer to the receptacles used in the bucket or pail system. According to present-day officials, the apartheid government generally provided 25ℓ buckets (which tended to be black in colour) to non-white households residing in areas that lacked bulk sewers as household sanitation services. The local government would have been responsible for emptying units as a municipal sanitation service. While still 'commonly operated in South Africa', the democratic

Term/acronym	Definition
	government has recognised that the bucket sanitation system is ‘socially unacceptable to most people’ as it is associated with a history of discriminatory governance (RSA, 1996b: 20). The state has hence continually set goals to ‘eradicate’ the practice in both formal and informal areas throughout the nation (Nicolson, 2015).
BM Section	BM Section is the name of an informal settlement that is featured as a case study in this thesis. It is situated in Khayelitsha township.
BNG	In August 2004, national government disseminated its <i>Breaking New Ground Policy</i> . It outlined the national DoH’s (2004a: 1) plan for the <i>in-situ</i> (on-site) transformation of well-located informal areas into ‘sustainable human settlements’.
Brownfield land	See Greenfield land definition.
Bucket latrines or system	According to DWAF (2005: 49), bucket latrines are ‘any containerised system where faeces are deposited in an open container and are collected manually for disposal’. While still ‘commonly operated in South Africa’, the democratic government has recognised that the bucket system is ‘socially unacceptable to most people’ as it is associated with a history of discriminatory governance (RSA, 1996b: 20). See Black buckets definition for further details about associations with historical injustice.
By-law	In South Africa, a by-law is a rule that is formulated by a public institution to standardise its systems and procedures and comply with national legislation. For example, the City of Cape Town municipality defined a by-law as local legislation ‘that is passed by the Council of a municipality to regulate the affairs and the services it provides within its area of jurisdiction’ (CoCT, 2014a).
Cape Malay	The Cape Malays are the descendants of slaves and political exiles from the Netherland’s Southeast Asian colonies.
Causal theory	In policymaking, causal theory refers to ‘the manner in which objectives are to be attained’ (Mazmanian and Sabatier, 1989: 25).
C3 notification	CoCT officials log and monitor complaints that are entered into the City’s centralised database as a C3 notification .
CBO	A community-based organisation refers to a civil society group that is likely organised on the basis of ‘common interests’ (CoCT, 2014d)—such as living in a specific neighbourhood.
CCMA	Established by the 1995 <i>Labour Relations Act</i> , the Commission for Conciliation, Mediation and Arbitration is an independent body

Term/acronym	Definition
	that mediates labour disputes (RSA, 1995).
Chemical toilet	A chemical toilet is a waterless latrine in which chemicals are used to deodorise human waste and make it innocuous. The portable plastic unit generally has a container in which waste is collected and users sit over on a seat. Service providers transport the collected waste to a wastewater treatment works. Policymakers stated that ‘chemical toilets are not encouraged, except in emergency situations, and then only for short periods, due to the high running costs involved’ (RSA, 1996b: 20). CoCT (2010b) nevertheless uses chemical units ‘where no other sanitation is practical’. It is similar to the container toilets used by CoCT in operation and function. CoCT officials differentiate them from container toilets by stating that the former is portable. A chemical unit is portable because its housing and waste receptacle is one plastic unit.
Civil society	Civil society refers to citizens who do not represent the government or the private sector.
Clearance point	With regard to obstacles in policymaking, a clearance point concerns endorsement during policy implementation (Mazmanian and Sabatier, 1989: 46).
CLO	A Community Liaison Officer is a resident who is subcontracted via a contractor to act as an intermediary between the City, a contractor and informal settlement residents in a municipal project on a day-to-day basis. A CLO’s primary functions in a servicing project are to keep residents updated with the contractor’s progress and negotiate relocations if necessary. The contract for a CLO position tends to be based on a contractor’s schedule.
CoCT	The City of Cape Town is a metropolitan municipal government in the Western Cape. CoCT is responsible for sanitation provision in the two informal settlement case studies I feature in this thesis.
Communal service	A communal service means ‘water services are supplied to more than one household’ (DWAF, 2001b: 2).
Community	The 2000 <i>Municipal Systems Act</i> broadly defined a ‘local community ’ as: (a) residents, ratepayers or visitors—though the terms especially referred to ‘the poor and other disadvantaged sections of such body of persons’; as well as (b) the civic, non-governmental, private and labour organisations that ‘are involved in local affairs within the municipality’ (RSA, 2000a: 14, 16).

Term/acronym	Definition
Compliance	Compliance refers to behaving according to rules or commands. In public policy and administration, ‘regulatory compliance’ generally stipulates that there are established guidelines that should be observed and/or specified standards that should be met.
Composting toilet	As the name suggests, the waste deposited into a composting toilet should decompose (with organic material such as wood) in the container that it is deposited in. The waste should eventually breakdown to become fertiliser. Urine diversion toilets are a popular form of composting toilet in South Africa (DWAF, 2002c: 5).
Conflicting rationalities	Conflicting rationalities are ‘the differences in world-view between the various parties involved’ (Watson, 2003: 402).
Constitutional Court	The Constitutional Court of South Africa is the supreme court in matters concerning the <i>Constitution</i> .
Container toilet	See Chemical toilet definition.
Controlled water supply	A controlled water supply refers to the intentional restriction of water to a specific volume, as opposed to an uncontrolled supply that has no such limitations (DWAF, 2001b: 2). A prepaid meter that provides a fixed amount of free water before charging its users is an example of a device that controls the volume of water supplied.
CSIR	The Council for Scientific and Industrial Research is the national government’s technological research and development organisation.
Custodian	A custodian in South African government has overarching responsibility for policymaking and administration in a sector. As of May 2014, the Department of Water and Sanitation (DWS, 2014) is responsible for policy formulation and implementation in the water supply and sanitation sector.
DA	The Democratic Alliance (2014b) has been the ANC’s official national opposition since 1999. It wrested control of Cape Town in 2006—which then was the only major metro not governed by the ANC, and became the Western Cape’s ruling party in 2009.
Director-General	A Director-General is the chief executive officer in a national public administration. The Director-General is generally viewed as the Minister’s technical counterpart in South African institutions because the former tends to have training and professional expertise in the field of the public body that they are responsible for.

Term/acronym	Definition
Directorate	A Directorate in CoCT's administration is responsible for a specified function and is typically subdivided into departments, units and so on. An Executive Director oversees it.
DHS	South Africa's Department of Human Settlements is a public body that is responsible for national housing and urbanisation concerns.
DoH	Also referred to as the nDoH, South Africa's Department of Human Settlements was formerly called the Department of Housing .
Domestic waste	Domestic waste includes human faeces, urine, greywater and refuse.
DPLG	The Department of Provincial and Local Government was responsible for 'alignment mechanisms' between the three spheres of South African government (DoH, 2004b: 17).
DWA	See DWAF definition.
DWAF	The Department of Water Affairs and Forestry was the national custodian of water services from 1994-2009. In 2009, the Department of Water and Environmental Affairs (DWAE) became the national water custodian after its forestry responsibilities were transferred to the newly formed Department of Agriculture, Forestry and Fisheries (Water Wheel, 2009). Conflict arising from widely-reported municipal sanitation scandals prompted the national government to transfer DWAE's sanitation responsibilities to the national Department of Human Settlements (DHS, 2010) a year later. The division of sanitation supply from the Department of Water Affairs (DWA), however, proved insensible, and led to the establishment of the Department of Water and Sanitation (DWS) in May 2014.
DWS	As the national water services custodian, the Department of Water and Sanitation 'is primarily responsible for the formulation and implementation of policy governing this sector' and has 'overriding responsibility for water services provided by local government' (DWS, 2014). See DWAF definition for information concerning DWS' establishment.
Effluent	Effluent refers to 'human excreta, domestic sludge, domestic waste-water, grey water or waste water resulting from the commercial or industrial use of water' (DWAF, 2001a: 3).
Epidemic	An epidemic is an 'unusually high prevalence of a lethal human

Term/acronym	Definition
	disease in a town, country or region' (Phillips, 2012: 9).
EPWP	The Expanded Public Works Programme is a national job creation initiative that provides the unemployed with temporary jobs in social and construction projects.
ERP	CoCT's Enterprise Resource Programme aimed to integrate the digital management of the municipality's files.
Equitable share	Equitable share is a grant from national government to its local and provincial counterparts. National government stipulated that grantees can 'determine' the servicing 'priorities' that they use their 'unconditional' grants for, so long as the grantees use equitable share towards their 'largely assigned' constitutional functions, and spending abides by national government's 'set norms and standards' (DoT, 1998: 58). Muller (2005: 5) stated that equitable share calculations 'take into account the number of poor people in each municipality'.
ESIS	Emergency Servicing of Informal Settlements was the first phase of a 2004 CoCT campaign that aimed to provide informal settlements with a minimal level of basic services.
Ethnocentrism	A central concept of bias in the field of anthropology, ethnocentrism refers to the judgment of an ethnic group's beliefs and practises according to the values and standards of another ethnic group.
Evaluation	The purpose of evaluation in policymaking is to make sense of what happened, oftentimes to revise the design of policy processes based upon empirical observations gleaned from implementation.
FBS	Free Basic Services refers to a policy in South Africa.
FIFA	The Fédération Internationale de Football Association is an international sporting body that organises a football (soccer) championship called the World Cup. South Africa hosted the men's World Cup in 2010.
Gatvol	Gatvol is an Afrikaans idiom that infers the speaker is 'fed up' or 'sick and tired' of a particular problem.
Government	The government is constituted as national, provincial and local spheres of government which are distinctive, interdependent and interrelated' (RSA, 1996a: 1267).
Governance	Governance is understood 'as a government's ability to make and

Term/acronym	Definition
	enforce rules, and to deliver services’ (Fukuyama, 2013: 3). Hill and Hupe (2010: 1–2) and Castro and Heller (2012: 6) also noted that governance has an element of transformation whereby a wide range of policy actors change public systems in a process of policymaking, rules enforcement and service delivery.
Greenfield land	In urban planning, a greenfield is an undeveloped parcel of land. In contrast, a greyfield is underdeveloped or abandoned, and a brownfield may have been contaminated from their preceding industrial or commercial uses.
Greyfield land	See Greenfield land definition.
Household	A household is understood as ‘a group of persons who live together, and provide themselves jointly with food and/or other essentials for living, or a single person who lives alone’ (StatsSA, 2011: 13).
ICT	Information and communications technology is an umbrella term that refers to devices or applications related to the media, computing and telecommunications.
Ideas	Ideas are unconscious or formulated beliefs, thoughts or concepts.
IDPs	National legislators formalised local level adherence by requiring municipalities to draft and adopt Integrated Development Plans that ‘aligned with any national or provincial sectoral plans and planning requirements’ (RSA, 2000a: 38).
Implementation	Implementation has been simply characterised as ‘the carrying out of a basic policy decision’ (Mazmanian and Sabatier, 1989: 20), though I understand policy implementation as ‘a complex change process where government decisions are transformed into programs, procedures, regulations, or practices aimed at social betterment’ (DeGroff and Cargo, 2009: 47).
Informal settlements	Also referred to as ‘slums’ (UN-HABITAT, 2003, 2006) or ‘squatter settlements’ (Huchzermeyer, 2001), informal settlements describe areas with housing and spatial layouts that are not developed according to conventional building codes and town planning (CSIR, 2005a; DHS, 2009), and where residents generally do not have legal tenure (DoH, 2004b; Harrison, 1992).
Institutional	‘ Institutional ’ refers to official systems and processes employed by public sector administrations.

Term/acronym	Definition
IOL	Independent Online is a South African news website that publishes the online versions of three major Cape Town newspapers (Cape Times, Cape Argus and Weekend Argus).
Jobseekers' database	The Jobseekers' database is a CoCT (2012d) register of unemployed persons who are interested in attaining short-term work contracts on a municipal project in their area of residence. CoCT (2012d) encourages potential jobseekers to 'update their records regularly at their local Subcouncil' office, as a jobseeker is selected 'on a random basis' and only 'notified via telephone of a possible opportunity to be employed'.
Key informants	Key informants are research subjects whose opinions are strongly reflected in my thesis.
Khayelitsha	Khayelitsha is the largest township in Cape Town.
Kosovo	Kosovo is the name of an informal settlement that is featured as a case study in this thesis.
Kl	A symbol for 'kilolitre' or 'kilolitres'.
l	A symbol for 'litre' or 'litres'.
lcd	A common abbreviation in the global water sector that refers to litres per capita per day .
Legal	' Legal ' relates to what is legislated or permissible by the government.
Legislation	Legislation is a law that establishes 'the basic legal structure in which the politics of implementation takes place' (Mazmanian and Sabatier, 1989: 30). A statute, for example, is a legal decree that can derive from legislative, executive or judicial orders.
m	A metre is a standard length of measurement.
mm	A millimetre is one thousandth of a metre.
Maladministration	In the <i>Social Housing Act</i> , maladministration refers to 'non-compliance with the provisions of this Act or a situation or condition indicating substantial financial, governance or management failure' (RSA, 2007: 3).
Minister	A Minister in South African government is a member of the President's Executive Cabinet and a senior political representative of a national public administration.
Ministerial	'Laws generally set out the broad policies and rules to be followed

Term/acronym	Definition
regulations	in a certain area, rather than the detailed procedures. When new legislation is passed, its implementation generally falls within the mandate of a particular sector or department. The relevant Minister may then issue a set of [ministerial] regulations , which set out the precise rules and procedures to be followed for the law to be implemented' (DPLG, 2004: 41).
MIG	The Municipal Infrastructure Grant is a national subsidy that funds new capital projects. The Urban Settlements Development Grant replaced the MIG programme in 2011.
NGO	A non-governmental organisation refers to a non-profit institution that is not a part of the government or a private sector business.
Nguni	Nguni is a Southern African language group spoken by the Bantu people. Zulu, Xhosa, Swazi and Ndebele are all a part of the Nguni Bantu language group.
Night soil	Night soil is a euphemism for human waste that is collected in a pail.
O&M	Operation is a suite of day-to-day routines, and maintenance a 'regular year-to-year activity' that is expensed from operating budgets (DWAF, 2008a: 22).
Off-site sanitation	An off-site sanitation option, such as a sewer, conveys waste away for treatment and disposal.
On-site sanitation	An on-site sanitation technology collects and disposes of waste where it is deposited.
Oversight	Oversight is supervision of an agency by 'its legislative (and executive) sovereigns' through 'formal' hearings or 'consultation' on committees, and 'routine requests' such as reports (Mazmanian and Sabatier, 1989: 33).
Pail system	See Black buckets definition.
Policy	Policies are plans or programmes designed to give direction with regard to particular aims and/or problems. An example of this may be a statement of intent.
Policy alignment	' Policy alignment is a process of ensuring that the rules and procedures of various policies do not contradict one another, but rather support one another and work in the same direction' (DPLG, 2004: 42).

Term/acronym	Definition
Procurement	Procurement is the process of successfully establishing a contractual arrangement (for instance, between a municipality and an external service provider) to fulfil a particular objective' (DPLG, 2004: 42).
Political	Political signifies partisan interests, such as party politics in government affairs.
PPE	Personal protective equipment refers to items such as garments or tools that guard a person from infection or injuries.
Proportional Representation (PR) Councillor	A Proportional Representation Councillor is an appointed council member who represents the people at large. As the title suggests, those chosen proportionally represent the popular vote of the political parties that had sought offices in a local government election (RSA, 1998a: 28).
PSC	A Project Steering Committee is a group of local representatives that are 'elected by stakeholders' to coordinate and facilitate the 'rollout' or 'implementation' of a project (CoCT, 2013f: 4).
R	The rand is South Africa's official currency. The national currency code is 'R' and international code is 'ZAR'. The exchange rate, as of August 2015, is approximately 1 ZAR for every .082 USD.
RDP	The Reconstruction and Development Programme is a socio-economic framework in which an 'inclusive approach to developing and implementing policy' for public services was espoused (RSA, 1994).
Rehabilitation	Rehabilitation is the 'refurbishment' or 'replacement' of failing or aging infrastructure (DWAF, 2008a: 22). Unlike O&M activities, rehabilitative costs can be accounted for as a capital expense.
RSA	The Republic of South Africa was established in 1948. The present democratic government was installed in 1994.
SAHRC	The South African Human Rights Commission was established to ensure that the rights outlined in South Africa's Constitution are upheld, and 'to secure appropriate redress' in instances of violation (RSA, 1996a: 1331(14)).
Sanitation services	Though it can generally refer to the provision, collection and safe disposal of domestic waste (human faeces and urine, greywater and rubbish), sanitation services was 'limited' to 'domestic wastewater and sewage disposal systems' in the Republic of South

Term/acronym	Definition
	Africa's democratic <i>Constitution</i> (RSA, 1996a: 1331 (37)). My use of sanitation services in this thesis follows the latter understanding.
SAPA	The South African Press Association is a national news agency.
Septic tank	Also known as a soakaway, a septic tank is an on site sanitation system in which waste from a flush toilet collects in an underground chamber (DWAF, 2002c: 11). Most of the liquid waste drains away while the solid material settles in the tank. The solids should reduce over time due to anaerobic digestion. When the tank is full, a tanker should remove the digested sludge from the septic tank.
Service	A service denotes the provision of a facility to contain waste as well as safely to remove it (DWAF, 2003).
Service delivery agreement	A service delivery agreement is made 'between a municipality and an institution or person', in situations where 'a municipal service is provided by that institution or person, either for its own account or on behalf of the municipality' (RSA, 2000a: 18).
Settled sewer	A settled sewer is essentially a simplified conventional sewerage system with on-site interceptor tanks. The interceptor tanks contain the majority of solids in wastewater before the waste's eventual conveyance to a treatment works (Mara, 1998). DWAF (2002c) also referred to settled systems as 'solids-free sewerage'.
Simplified sewer	A simplified sewer is a conventional full-bore gravity system with flattened gradients, smaller-diameter pipes and shallowly-laid sewers and manholes (CSIR, 2005b: 10–9).
SJC	The Social Justice Coalition is an advocacy group that focuses on safety and security concerns in Khayelitsha.
Social	Social concerns interpersonal relationships, as well as norms associated with people's practises and perceptions.
Social facilitators	In CoCT Municipality, social facilitators 'negotiate service delivery with the communities' (Graham, 2005: 88).
State	According to the <i>Statistics Act</i> , an ' organ of state ' refers to 'any department of state or administration in the national, provincial or local sphere of government' (RSA, 1999: 4).
StatsSA	Statistics South Africa is a public institution that is responsible for producing national censuses.
Statute	See Legislation definition.

Term/acronym	Definition
Strategy	A strategy is an implementation plan describes the blueprint for action. An example of this may be guidelines or protocols.
Sustainability	<p>Sustainability is not explicitly defined in the 1996 <i>Constitution</i>, but it is associated with ecological security and ‘economic growth’ (RSA, 1996a: 1253, 1331(28)). The 2000 <i>Municipal Systems Act</i> also infers that it has environmental and financial aspects in its definition of ‘development’:</p> <p>“development” means sustainable development, and includes integrated social, economic, environmental, spatial, infrastructural, institutional, organisational and human resources upliftment of a community aimed at—(a) improving the quality of life of its members with specific reference to the poor and other disadvantaged sections of the community; and (b) ensuring that development serves present and future generations (RSA, 2000a: 14).</p>
Technical	Technical relates to the application of science, as well as expert knowledge in any field.
Township	Post-apartheid legislation defined a township as either ‘a group of pieces of land, or of subdivisions of a piece of land’ designated for residences, commerce or industry (RSA, 1997b: 6). The current government’s understanding of township does not have a racial connotation. Apartheid officials, however, used the term to describe peri-urban areas that were to specifically house non-white households ‘beyond the town or city limits’, while ‘the white population resided in suburbs’ adjacent to towns or cities (StatsSA, 2011: 20).
Transit camp	A transit camp is meant to be a place where people temporarily reside before their relocation to permanent housing. Characteristics of transit camps range from bare sites with communal services, to fully serviced structures. These structures, however, tend not to be built of brick and mortar, and the tenants generally do not own the plot of land that they reside upon. Despite the tenants’ precarious housing situation, Huchzermeyer (2011: 115) stated that transit camps were advantageous for the state, as government officials could still ‘conveniently count... shacks or informal settlements eradicated, without the expenditure of housing delivered’.
TRS	Transport, Roads and Stormwater was a CoCT line department.
UCT	The University of Cape Town is public research university in

Term/acronym	Definition
	South Africa.
UISP	The Upgrading of Informal Settlements Programme was added as an annexure to the <i>National Housing Code</i> in October 2004. The latter document outlines the norms and standards for residential developments in South Africa. The <i>UISP</i> 's inclusion in the <i>National Housing Code</i> formalised the national government's 'rules' and 'guidelines' for in-situ developments.
US	The United States is a country in North America that the author of this thesis originates from.
UWMRU	The Urban Water Management Research Unit at UCT is an interdisciplinary research group that has faculty and students from the Civil Engineering, Environmental and Geographical Sciences, Urban Planning, Social Anthropology and Political Studies Departments. It was formed to address water sector planning and governance in South Africa from a holistic perspective.
Un-sewered toilet	An un-sewered toilet does not drain its contents into a bulk sewer network. Un-sewered technologies include: (a) seats positioned above receptacles like buckets and tanks; and (b) composting units, which are also commonly referred to as 'dry' toilets.
Veto point	With regard to obstacles in policymaking, a veto point concerns the necessary political support for a measure (Mazmanian and Sabatier, 1989: 46).
VIP latrine	A ventilated improved pit latrine comprises of a top-structure that is situated over a hole in the ground and ventilated by a pipe. The pipe has a fly-screen attached to it, to prevent flies from entering the facility. DWAF (2002c: 3) recommended lining the pits when emptying is required.
VPUU	Violence Prevention through Urban Upgrading is a non-governmental organisation that had partnered with the City of Cape Town as its community facilitator in an in-situ upgrade project for BM/France informal settlements (CoCT, 2011b; VPUU, 2010).
W&S	CoCT's Water and Sanitation is a line department that is responsible for water and sanitation services. It was established in June 2006 and had previously been known as Water Services.
Ward	Established in the 1998 <i>Municipal Structures Act</i> (RSA, 1998a), a ward is a 'geopolitical subdivision' in government that functions as 'the lowest administrative unit in a municipality' (Musvoto et al.,

Term/acronym	Definition
	2011: 319).
Ward Councillor	A Councillor refers to either an elected or appointed municipal council member (RSA, 1998a: 30) who is a representative of the local municipality. A Ward Councillor is ‘elected to represent a ward’ by residents living within that jurisdiction (RSA, 1998a: 32) at a municipality, and represent the municipality at a community level (Musvoto et al., 2011: 319).
Water services	Water services ‘means water supply services and sanitation services’ (RSA, 1997c: 8).
Water services authority	A water services authority refers to ‘any municipality, including a district rural council as defined in the Local Government Transition Act, 1993’ (RSA, 1997c: 10).
WCRLF	The Western Cape Religious Leaders Forum is a consortium that represents different spiritual organisations. The WCRLF acted as facilitators between CoCT and sanitation advocates in 2013.
Western Cape	Cape Town is situated in the Western Cape province, which is the only Democratic Alliance (DA) managed province in an African National Congress (ANC) dominated government.
White Paper	In South African policymaking, a White Paper is a government document that contains background and expert opinions about resolving a specific problem. It is disseminated to attain comments from the public and to guide legislators in the formulation of laws and policymakers in the design of policies.
WRC	The Water Research Commission is a South African government-funded parastatal renowned for supporting research related to water services.
WSDP	The 1997 <i>Water Services Act</i> required that each municipality draft a Water Services Development Plan that described its current water services status and proposed infrastructure and tariff plans; and a ‘time frame’ that included a five-year implementation plan (RSA, 1997c: 20).
WWTW	A wastewater treatment works collects, cleanses and disposes of sewage and industrial water.
Xhosa	Xhosa is a South African language. It is a part of the Nguni Bantu language group.
ZAR	South African Rand (See ‘ Rand ’ definition).

1. Introduction: Human rights, municipal wrongs?

On 17 July 2014, South African newspapers reported the latest in Cape Town's 'toilet war'. The coverage—about a local court's acquittal of seven 'poo protesters' (Figure 1) and a national institution's condemnation of municipal practise (Figure 2)—brought attention to two advocacy groups' independent struggles over the municipality's provision of un-sewered toilets in informal settlements¹. Media reports of both events emphasised how social advocates had empowered the 'people' to challenge an unjust 'city' and its discriminatory policies that infringed upon residents' constitutional rights to dignified sanitation.



Figure 1: A *Daily Voice* (2014) front-page story (left) about seven Ses'Khona Human Rights Movement members' acquittal for contravening a municipal by-law owing to contradictory witness accounts. Poep is a pun, as poep is Afrikaans for poop. The poo protesters were a regular news fixture in 2013 because of a controversial tactic they used to highlight their discontent with the City's informal settlement services: the protestors dumped human waste collected in un-sewered toilet tanks in places of power (government offices) or prominence (Cape Town International Airport). The group's leader said he intended to countersue the City (right) if its Mayor did not personally 'do the right thing and apologise' for neglecting informal settlements (Cape Argus, 2014a).

¹ Housing and spatial layouts in informal settlements are not developed according to conventional building and town planning codes (CSIR, 2005a; DHS, 2009; DoH, 2004b). Residents of these settlements also generally lack legal tenure (DoH, 2004b; Harrison, 1992). Also referred to as 'slums' (UN-HABITAT, 2003, 2006), I use the acceptable term in contemporary South African discourse in this thesis.

The Big Story: Toilet troubles

Porta potties are racist - HRC

Report slams chemical toilets that 'significantly and adversely affect black Africans'

BACKLASH: Lizole Juna blocks his nose after Kosovo residents in Philippi destroyed concrete toilets that the city of Cape Town installed for them

PICTURE: CORY WALES

'City violates human rights'

Francesca Vilette and Xolani Koyana

The city has violated the dignity and human rights of people in informal settlements, particularly black Africans who make up most of this population by "unreasonably" providing chemical toilets as a long-term measure, the SA Human Rights Commission has found.

It had also been unreasonable in applying Emergency Housing Programme guidelines in situations that were not urgent, while taking a fixed approach in determining sanitation needs.

The findings follow an investigation undertaken after a complaint from the Social Justice Coalition, a group focusing on sanitation issues.

They came Tuesday as Andile Lali, leader of the Ses'Khona People's Rights Movement and of the so-called poo protests, was acquitted with six others of contravening the City of Cape Town's environmental health by law by transporting human waste. The protests were aimed at highlighting poor sanitation services in some areas.

Handing their acquittal, Lali demanded that mayor Patricia de Lille and Premier Helen Zille apologise for using portable toilets to meet the sanitation needs of informal settlements, or face legal action in seven days.

The commission said the long-term provision of chemical toilets violated the right to basic sanitation and significantly affected black Africans. This amounted to unfair discrimination, while the "institutionalisation" of disparate and inadequate services violated these people's right to dignity.

The city ignored the reality of the residents' situation by regarding informal settlements as temporary, despite their long existence, and the conditions there as a continual crisis.

The commission recommended that, among other things, the city immediately stop using the Emergency Housing Programme guidelines.

It gave the city six months to develop a programme based on human rights principles and taking into account the housing backlog, with its delays.

The city should also ensure that the community was consulted about sanitation contracts.

The national Department of Human Settlements should set standards for settlements that were not temporary because it was the absence of these that had allowed violations like those by the city to occur.

The SAC had asked the commission to investigate the long-term use of temporary facilities and a lack of planning for sanitation delivery.

The group had audited services in four Khayelitsha informal settlements - CT Section, PE Section and Finsilweni and Greenpoint.

It found 130 of the 236 chemical toilets were overflowing with waste, a number of toilets did not have doors while others were locked, and there were "extreme uncleanliness", severe damage and instability.

The city had paid contractor Mshengu Services about R165 million to supply and

To Page 4

Figure 2: The South African Human Rights Commission (2014a) investigated the City of Cape Town's sanitation services after the Social Justice Coalition lodged a complaint concerning the City's informal settlement programme. The SAHRC concluded that the City's provision of un-sewered toilets was racist because delivery to 'black Africans' was higher than other population groups (top) (Cape Argus, 2014b), and its 'inadequate basic sanitation services' infringed upon residents' rights (bottom) (Cape Times, 2014b).

South Africa's media has regularly featured stories about sanitation rights since photographs of toilets without walls graced the front pages of newspapers in the run-up to the 2010 FIFA World Cup². Images of unenclosed toilets from the Cape Town suburb of Makhaza shocked the affluent: many then were unaware of the living conditions in less fortunate areas, and were appalled that families lacked private toilets when, just forty kilometres away, public funds had helped build a new 4.5 billion rand³ (\$600 million USD) stadium (Figure 3). The Makhaza 'open toilets' scandal spurred a national debate about dignified services for the poor and government priorities in modern South Africa. Civil advocates and national government officials, in the ensuing discussions, quoted national legislation and policy to fault the local municipality for failing to provide the poor with 'proper' toilets (High Court of South Africa, 2011; SAHRC, 2010; SJC, 2010b), and not complying with countrywide sanitation norms and basic standards (DHS, 2012; MSTT, 2012). The South African Human Rights Commission⁴ (SAHRC, 2012: 18) said Makhaza's open toilets exemplified the City's 'conceptual misunderstanding of the true nature of progressive realisation and what constitutes the fulfilment of a right'. Moreover, a SAHRC deputy commissioner censured the City's participatory processes, stressing that 'the people who make policy are not listening to the people who are at the receiving end of the implementation' (Times Live, 2012). The City's critics, in other words, had no doubt that municipal officials had wronged Makhaza residents by violating their constitutional sanitation rights, and disregarding both the law and users' needs when implementing national policy.

Additionally, the provision of un-sewered toilets evoked concerns about the 'progressive' realisation of sanitation rights twenty years after South Africa's transition to democracy. Many residents of 'long existing informal settlements' have 'patiently' waited for the current administration to fulfil its promise of improved housing conditions and basic services (MSTT, 2012: 25, 255) after a century of discriminatory governance banished 'non-white' South Africans to largely undeveloped rural and peri-urban settlements (Cole, 1987; Worden, 2012).

² Cape Town was one of nine South African host cities for the 2010 Fédération Internationale de Football Association (FIFA) World Cup.

³ The rand is South Africa's official currency. The national currency code is 'R' and international code is 'ZAR'. The exchange rate at the time of the stadium's completion was 1 ZAR for every .075 USD.

⁴ South Africa's democratic government established the SAHRC for citizens 'to secure appropriate redress' if their rights (which are outlined in Chapter 2 of the 1996 *Constitution*) are violated (RSA, 1996a: 1331(14)).



Figure 3: The media exposés on Makhaza’s open-toilets (top) (West Cape News, 2010) stirred public outrage weeks before Cape Town hosted eight World Cup matches at a newly-built stadium (bottom-right) (CoCT, 2012b). The coverage brought attention to the need for suitable sanitation services for the poor in light of jarring socio-economic disparity in contemporary South Africa.



Figure 4: An un-sewered toilet in an informal settlement (left). The household unit is situated in an open space between two dwellings. The bottom tank is collected (centre), emptied and disinfected at a treatment works thrice weekly by a municipal service provider. Highlighted in the bottom-right inset is a rag that was used as an anal cleanser and discarded next to a blocked flush toilet (Taing, 30 January; 5 & 14 February 2013).

Yearning for the ‘dignified’ neighbourhoods of ‘white’ South Africans, the historically disadvantaged particularly desire toilets that flush waste out of sight and out of mind (Eales, 2011; Penner, 2010; Robins, 2014b). Given this aspiration, it is unsurprising that the mass roll-out of un-sewered toilets (Figure 4)—which let ‘the smell of shit... waft through their shacks while they cook, eat, and sleep’ (Robins, 2014a: 3)—provoked disappointment and outrage throughout informal settlements. Dissenting non-white residents likened the new municipal service to the preceding government’s black buckets⁵, and contended that the un-sewered options represented their continued maltreatment as second-class citizens. They therefore popularly rejected the City’s ‘glorified buckets’ as an undignified and unsatisfactory means of fulfilling their sanitation rights after two decades of democracy, and demanded their immediate connection to modern infrastructure. The SAHRC (2014a, 2014b) and outspoken civil advocates (see Figures 1 and 2) evidently agreed that un-sewered toilets are anti-progressive and racist, for they joined the crusade to immediately dignify all Capetonians with flushed services. Based on their shared dissent, informal

⁵ Black buckets refer to the 25ℓ receptacles used in the pail system. The preceding government generally provided such units (which tended to be black in colour) as a sanitation service to households that resided in areas that lacked bulk wastewater sewers.

settlement residents and their advocates view progress from a lens of historical injustice—for un-sewered toilets symbolise continued inequality between old and new governments, while flush toilets, in stark contrast, represent dignity and modernity in democratic South Africa.

Uproar over sanitation in Cape Town signifies how advocacy and mass media have jointly stimulated interest in the delivery of a critical but oft overlooked municipal service. The popular response to this attention has been to hold local government accountable for failing to: (a) provide adequate municipal services and ‘promote social and economic development’ as it is constitutionally obliged (RSA, 1996a: 1331(2)); and (b) enhance the City’s practises through democratic participation and national regulation. This focus on municipal shortcomings reflects the prevailing notion of poor implementation being the primary reason for why the state⁶ has failed to achieve its objective of progressively improving the sanitation conditions of all South Africans.

Framing Cape Town’s toilet crisis wholly as a fault of inadequate municipal governance, however, depends on flawed logic that assumes national government has designed a workable policy⁷. This conclusion also ignores how a diverse range of factors and actors affect sanitation design and provision. For example, Cape Town officials said the following problems often constrained sanitation delivery in informal settlements:

- The contradictions (Graham, 2006) or gaps (Mjoli and Bhagwan, 2010; MSTT, 2012; SAHRC, 2014b) in overarching pro-poor legislation and development policies—especially when servicing informally occupied land;
- The technological challenges of retrofitting sewers in structurally dense informal settlements that are unsuitable for upgrading (de Lille, 2014; Sonnenberg, 2013c);
- Time-consuming negotiations with residents who vie for limited job opportunities in municipal interventions (Zille, 2010a), or are unwilling to relocate (even temporarily) for fear of further marginalisation (Taing, Armitage, et al., 2013); and
- Paralyzing ‘political football’ between two political parties vying for control of the City⁸ (Cape Times, 2010, 2014c; IOL News, 2010; SAPA, 2013a; Zille, 2010b).

⁶ An ‘organ of state’ refers to ‘any department of state or administration in the national, provincial or local sphere of government’ (RSA, 1999: 4).

⁷ Policies give ‘direction’ (Mazmanian and Sabatier, 1989: 30) by ‘establish[ing] the vision, overall goals and approach’ (DAAF, 2003: 3) of a particular problem.

⁸ Cape Town is situated in the Western Cape, which is the only Democratic Alliance (DA) managed province in an African National Congress (ANC) dominated government. The DA (2014b) has been the ANC’s official

These implementation challenges reveal the difficulty of servicing informal settlements in the context of various legal, technical and socio-political constraints. The pressure on the City to nonetheless connect all citizens to flushed services has resulted in reluctant officials' rushed installation of shallowly laid sewers and communal full-flush toilets in open spaces between shacks with minimal public consultation. Officials acknowledged that such provision goes against their technical training and professional judgment, and that they were rarely surprised when sewerline blockages—caused by design issues or users' flushing of foreign objects (see Figure 4)—resulted in unfortunate sewage overflows into people's homes (GroundUp, 2014; SJC, 2010a). The unrelenting pressure to provide waterborne sanitation in challenging and unfavourable circumstances reveals how contestation between multiple actors have affected services on-the-ground, for better or for worse, and regardless of whether the policy and design were feasible.

The demand, moreover, that municipal officials 'do their job' at the behest of civil society and national regulators disregards the discretion national policymakers afforded to municipalities to determine how they would 'progressively' provide basic services based on their respective capacity and financial constraints (DWAF, 2002d: 76, 2003: 12, 16, 27). Whilst residents of informal settlements and their supporters censured un-sewered toilets as the 'old buckets in new containers' (Robins 2014a: 3), Cape Town officials rationalised that un-sewered technologies are usually the best they can provide given the aforementioned challenges of servicing informal settlements. They further argued that un-sewered units are more hygienic than the previous government's bucket system (de Lille, 2013a, 2013b). The first perspective centres on the largely unchanged nature of sanitation provision after two decades of democratic rule. The opposing interpretation of progress, on the other hand, reflects the incremental 'water services ladder'⁹ espoused by the national policymaker—especially in light of limited capacity and government resources (DWAF, 2003: 43). The two interpretations of what constitutes 'progressive' realisation indicate contradictory guidance from civil society and different arms of national government. It also suggests that Cape Town's sanitation debate, which currently is at an impasse, is entrenched in conflicting rationales of how to simultaneously fulfil residents' demands, national policymakers' rights-based objectives and municipal implementers' servicing obligations.

national opposition since 1999. It wrested control of Cape Town in 2006—which then was the only major metropolitan council not governed by the ANC, and became the Western Cape's ruling party in 2009.

⁹ This is a common metaphor used in the international water and sanitation sector. It infers gradual progression in stages, from the bottom rung (often said to be open defecation in sanitation) to household services.

1.1 Study purpose

South African urban planner Vanessa Watson (2003: 395) likewise described how conflicting rationalities amongst elected officials, residents and municipal planners had brought a Cape Town housing project in the informal settlement Crossroads to an ‘abrupt halt’. The conflicting rationalities Watson (2003: 402) referenced were ‘the differences in world-view between the various parties involved’. She stated that the ‘clash of rationalities’ between the politicians’ and residents’ patronage politics and the government’s multicultural planning approach was problematic because it ran ‘far deeper than planners and current planning theory [could] accommodate’ with conventional consultation tactics (Watson, 2003: 395, 403). The latter point is especially critical because municipal authorities—drawing on the democratic principles of rational planning through consensus building—had expected to work with citizens who would compromise with one another. The violent strong-arming in Crossroads, however, indicated that the on-the-ground negotiation tactics were inherently incompatible with the City’s consensus building approach. Watson (2003: 404) noted that the government’s method was debilitated by an ‘assumption about the values, beliefs, or rationalities of those for (or with) whom they plan’. This presumption undermined the project’s implementation because municipal officials ignored the alternate rationales of those involved. To avoid such delays in the future, Watson (2003: 404) recommended that policy actors consider ‘the various rationalities at play’ in planning interventions, and explore ‘how they interact with each other in a planning or development process’.

Durban’s eThekweni Municipality also struggled with conflicting rationalities in the implementation of informal settlement services over the past fifteen years. Sutherland et al. (2014) recently described how eThekweni dramatically re-shaped its nationally-derived water and sanitation policy and processes in response to local stakeholders who had different interests in development. The study’s empirical data indicated that eThekweni officials, informal settlement residents and civil advocates were mired in four distinct water governance discourses¹⁰. This clash in rationales eventually led to the re-framing of national policy according to eThekweni-specific needs. This dynamic suggests that actors with conflicting rationalities affected sanitation design and provision through negotiation.

¹⁰ Sutherland et al. (2014: 1, 17) outlined four different water governance logics in eThekweni: (1) ‘water as a human right’, which espouses access on societal needs; (2) ‘water as an economic good’, which focuses on the government’s financial viability; (3) ‘spatial differentiation of service provision’, which reflects a practical logic to servicing rural and urban areas; and (4) ‘experimental governance and incremental learning’, in which responsive administration results from ‘co-production of knowledge’ amongst ‘a multiplicity of actors’.

It is significant to note that conflict caused by different logics and methods is not unique to Cape Town or Durban. Charlton (2009), for instance, similarly observed that conflicting rationales in housing programmes obstructed government interventions across South Africa. Castro and Heller (2012: 13–14), too, noted that authorities worldwide have long struggled with ‘deep-rooted contradictions and rival understanding about how [water and sanitation services] should be organized and run’. Castro and Heller (2012: 5) nevertheless said that little attention is paid to the ‘systemic conditions that influence and structure the actual working of these services on the ground’ in both research and practise.

The aforementioned findings about conflicting rationalities draw attention to an important socio-political concern that seemingly is ignored in situations of contested governance¹¹: that is, development is likely at a crossroads because actors have not engaged with contrary rationales in policy design and irreconcilable differences in process. Given this oversight, studies on the ways sanitation policies are designed and provided would be valuable because few have attempted to understand the conflicting rationales that effectively drive programmes, or frequently delay and indefinitely suspend them (Taing, Armitage, et al., 2013). Studies that unpack these ‘divergent and conflicting’ logics (Charlton, 2009: 313) in policymaking and public administration can accordingly fill this knowledge gap by forwarding theorisation and implementation of policy based upon ‘concrete’ municipal examples (Watson, 2003: 403).

This thesis endeavours to challenge the persistent conception that sanitation failures in informal settlements are rooted in poor implementation of national policy. Given that sanitation conflicts generally arise at the interface between state policymaking and informal settlement servicing, the analysis of municipal implementation being ‘the problem’ is unsurprising. But, as the Cape Town toilet scandals and the contested governance examples reveal, this diagnosis ignores possible weaknesses in national policy guidance, and overlooks how various factors and actors can affect servicing design and provision. It further assumes that policies are executed in a sequenced or ‘hierarchical’ governance model (Hill and Hupe, 2010: 2), whereby local actors simply follow nationally set agendas.

In actuality, public policies are outcomes of governance in which contestation amongst a diverse range of actors influence the implementers’ plan, objectives, resource

¹¹ Governance is understood ‘as a government's ability to make and enforce rules, and to deliver services’ (Fukuyama, 2013: 3). It also has a transformation element, whereby various actors can affect the process of policymaking, rules enforcement and service delivery (Castro and Heller, 2012: 6; Hill and Hupe, 2010: 1–2).

allocation and administrative structure (Castro and Heller, 2012; Mazmanian and Sabatier, 1989; Pressman and Wildavsky, 1973). In this thesis I show how clashing rationalities in policy implementation ultimately influenced the design and provision of sanitation policies and services for Cape Town's informal settlements. I firstly identify the various rationales in Cape Town's sanitation debate, to address the following research question: How have similar or conflicting rationalities amongst various policy actors affected the design and provision of informal settlement sanitation services?

Based on the empirical evidence I gathered on the way people create policy, deliver services, and use systems, I suggest that Cape Town's sanitation development is hindered by rival understandings of how services should be designed, implemented and managed. This disagreement is rooted in different interpretations of ambiguous policy language, and has resulted in the re-framing of national policy according to local experiences. The thesis thus argues that there is a disproportionate focus on turning national policy into practise—for this viewpoint misses how people, their practises and their perspectives have dynamically re-shaped policy at a local level. Understanding the complex interplay between policy rationales and implementation realities can contribute to more constructive means of effectively providing sanitation services for informal settlements.

1.2 Thesis outline

This chapter introduced the motivation for studying sanitation policymaking and policy implementation for South African informal settlements. The next chapter gives an overview of the analytical framework that guided the study's data analysis (policy implementation studies). Chapter 3 features the research design and methods employed in this study. Presented in Chapter 4 is a review of relevant national sanitation policies, with particular attention paid to rights-based legislation and the *Free Basic Services Policy*. Chapters 5 and 6 consider the policy context from the perspectives of actors involved in toilet design, delivery and management in Cape Town. Chapter 7 synthesises the key findings of the study, reflecting especially on the conflicts between policy expectations and practical on-the-ground realities in informal settlements. The final chapter offers concluding remarks and further research recommendations for the re-formulation of sanitation policy in South Africa.

2. Study framework: Implementation studies

I present in this chapter an analytical framework that helps me describe how sanitation policy is formulated, implemented and evaluated in South Africa. Implementation studies focuses on if and how the objective of policy is realised by identifying and evaluating factors that affect their achievement. It emerged in the 1970s as a distinct component of the policy cycle framework, which was the most popular way to analyse policy until the mid-1980s (Hill and Hupe, 2010; Sabatier, 2007). The policy cycle framework essentially simplifies the complicated policy process into the distinct phases of formulation, implementation and evaluation. It became so influential in policy studies that Nakamura (1987, as cited by Hill and Hupe, 2010: 6) referred to it as the ‘textbook approach’.

Some policy experts, however, have had reservations with the policy cycle’s dominance—mostly because they are of the position that the complexity of policymaking cannot be captured in its entirety by any conceptual framework (Hill and Hupe, 2010). Sabatier (2007: 7), who once was an early proponent of implementation studies, has especially been a vociferous critic of the textbook approach, for the following reasons:

- It lacks ‘a set of causal drivers that govern the policy process within and across stages’. Research following this approach thus centres on cause-and-effect relationships in individual phases.
- It assumes ‘that there is a single policy cycle’ and that policymaking logically unfolds in a ‘sequence of stages’. This depiction oversimplifies how policy generally is conceived and executed after ‘multiple’ back-and-forth interactions between various actors and levels of government. It also disregards evidence of decision-making, execution and modification occurring in each of the supposedly distinct policy phases.
- Due to its ‘legalistic, top-down bias in which the focus is typically on the passage and implementation of a major piece of legislation’ or policy, the policy cycle framework neglects how a law or policy can evolve during implementation and evaluation.

Unsurprisingly, similar criticisms have been said of implementation studies (see Section 2.2.4). Based on these concerns, Sabatier (2007: 7), reasoned that the policy cycle approach (and likely by extension, implementation studies) ‘has outlived its usefulness and needs to be replaced with better theoretical frameworks’. Sabatier’s dismissal of the

framework's abstract limitations, however, does not account for the difficulty of changing government systems that are presently structured according to a policy cycle framing. Through the course of my investigation of sanitation design and delivery in South Africa, for instance, I observed the notion of public policy occurring in stages ingrained in:

- The national, provincial and municipal governments' official structure, processes and functions (CoCT, 2012c; DoH, 1994, 2004a, 2004b; DPLG, 2004, 2005a, 2005c, 2007; DWAF, 2001b, 2001c, 2002b, 2003, 2007, 2008a, 1994, 2001a; RSA, 1996a, 1996b, 1997a, 1997c, 1998a, 2000a); and
- Government officials' and civil society's expectations that service provision should follow a logical chain of events (Bailey, 2003; Cousins and Lagardien, 2004; Ryneveld et al., 2003; SJC, 2013c, 2014c; Taing, Armitage, et al., 2013).

Furthermore, implementation theorists' top-down and bottom-up frameworks (see Section 2.2.2.1) are commonly used and understood in South Africa's public sector. Brynard (2007) indicated that the state's emphasis on regulatory compliance¹² and achievement of its desired results reflects a top-down policymaking method. Unsatisfied with the prevailing top-down rationale, the bottom-up approach has been suggested as a means of introducing a grassroots perspective to government processes (Allison, 2000; Ashipala and Armitage, 2011; Brynard, 2007; Charlton and Kihato, 2006; Mcewan, 2005; Pillay et al., 2006; Schulze et al., 2007; Taing et al., 2014). The aforementioned government documents and public debate suggests that the policy cycle framework is relevant to South Africa's current administration, and that numerous actors either actively uphold or challenge the government's top-down approach on a day-to-day basis.

Given that a top-down stages model is currently practised and contested in contemporary discourse, it is sensible for me to also engage with the policy concepts at the heart of this debate. In doing so my research can potentially advance the theorisation and application of staged policy approaches based upon practical examples. Dividing the policy process into different phases is also a useful way to assess why initiatives may change over time, as well as describe how various perspectives in 'policy politics' and 'social politics' (Schofield, 2001: 247) affect design and provision of sanitation services. Consideration of the

¹² Compliance refers to behaving according to rules or commands. In public policy and administration, regulatory compliance infers that there are established guidelines that should be observed and/or specified standards that should be met.

interplay between actors is especially significant for my research because the sanitation sector seems to be dominated by actors that uncritically accept a top-down logic in policy design and implementation. For example, Mjoli (2010: vi) focused upon ‘improving the understanding and the interpretation of the national sanitation policy by municipalities’ in two state-funded studies. This top-down preoccupation of realising the objectives set in national sanitation policy is evident in numerous sector assessments—with compliance concerns even extended to the policy beneficiaries:

- Municipalities were cited for non-compliance, maladministration or misinterpretation, of national legislation and policy (Constitutional Court, 2000; DWA, 2013; DWAF, 2004b; Gowlland-Gualtieri, 2010; High Court of South Africa, 2011; Kidd, 2011; Lagardien and Cousins, 2004; Lagardien et al., 2009b; Mjoli and Bhagwan, 2008, 2010; Mjoli et al., 2009; Mosdell, 2006; MSTT, 2012; Muller, 2013; OECD, 2008; SAHRC, 2014b; Schaub-Jones, 2010; SJC, 2013d; Tempelhoff, 2012); and
- Residents were faulted for not observing good personal hygiene and sanitary practises (Govender et al., 2010; Lagardien and Cousins, 2004; Mjoli et al., 2009; MSTT, 2012; Naidoo and Chidley, 2009; Naidoo et al., 2007, 2008).

According to this dominant top-down rationale, discrepancies between policy and implementation in the sanitation sector would logically be attributed to failing to either meet national standards or follow societal norms. These points suggest very little deliberation of possible shortcomings in national policy. I aim to advance the present conceptualisation and application of the policy cycle approach in the sanitation sector by drawing upon an implementation studies framework to tackle an essential concern that has been missing thus far in public policy and administration debates: are policies ‘designed to address the problems they [are] alleged to address’ (Hill and Hupe, 2010: 9)?

In brief, I selected an implementation studies framework in this thesis to complement and challenge normative policymaking methods and debates in South Africa that centre on the prevailing top-down rationale of policy processes occurring in stages. The rest of this chapter: (a) draws from literature to distinguish between the policy cycle’s different stages, to prevent any confusion as to each stage’s distinct meaning; and (b) provides further background about implementation studies and the particular analytical framework I use in this thesis.

2.1 The policy stages

In implementation studies, theorists generally focus upon tasks or functions to distinguish between different stages in the policy process. Sabatier (2007: 7), for example, divided the policy cycle into four phases: agenda setting; policy formulation and legitimation; implementation; and evaluation. DeGroff and Cargo (2009: 48–49), who were more detailed than Sabatier, identified seven stages¹³ in total. For simplicity and consistency, I condensed the policy cycle into three stages that coincide with the key policy roles I observed when gathering data: the formulator, the implementer and the evaluator. My three-stage simplification also reflects the common perception of implementation occurring ‘between policy expectations and (perceived) policy results’ (Ferman 1990, as cited by DeLeon, 1999: 314). The following sections detail my understanding of the policy formulation, implementation and evaluation stages. To note, I am cognisant that these policymaking concepts are subjective, as an individual’s interpretations of the terms tends to be based upon the respective agenda that he or she is likely supporting. I hence use the policy stages framing solely as a base of understanding, and do not presume that my research informants shared the same understanding of the policy process.

2.1.1 Policy formulation

Mazmanian and Sabatier (1989: 39) stated that policy is the ‘result of heightened public concern with a general problem’. Such a statement suggests that public support triggers the formulation of policy. Hill and Hupe (2010: 3) remarked that policy ‘goals and the means for achieving them’ are generally described in legal statutes, executive orders or court decisions. This stage thus supposedly has two main purposes: to conceptualise policy expectations by setting an agenda and structure the processes that follow.

2.1.2 Policy implementation

Implementation theorists with a top-down perspective defined implementation as ‘the carrying out of a basic policy decision’ (Mazmanian and Sabatier, 1989: 20). Theorists with a bottom-up orientation, however, objected to this sequenced explanation of implementation following policy design. In contrast to the top-down interpretation, DeGroff and Cargo (2009:

¹³ Their seven stages were: agenda setting; issue definition; policy formulation; policy decision; implementation; evaluation; and maintenance, succession or termination.

47) described implementation as ‘a complex change process where government decisions are transformed into programs, procedures, regulations, or practices aimed at social betterment’. DeGroff and Cargo’s definition reflects Parson’s (1995: 461; as cited by Hill and Hupe, 2010: 12) notion of implementation systematising policy ‘into action and practice’.

2.1.3 Policy evaluation

Evaluators are responsible for ‘making sense of’ what happened in the policy process (Hill and Hupe, 2010: 11). Mazmanian and Sabatier (1989: 38) referred to the evaluation stage as the ‘revision’ or ‘reformulation’ of policy based upon empirical observations from preceding stages. The ‘evaluation’ phase thus implies the end of the policy cycle, for the policy and process are assessed and re-designed if necessary. Focusing upon the re-design aspect, Browne and Wildavsky (1983: 230) observed that most evaluators focused upon anticipating problems to reformulate policy so that projects ‘are less likely to fail’. Browne and Wildavsky (1983: 230), however, warned against this top-down or ‘prospective approach’ to evaluating policy, because reformulation is then based on avoiding or minimising difficulties rather than building the ‘resilience’ implementers needed ‘to cope after things break down’ and ‘overcome unforeseen obstacles’. Browne and Wildavsky (1983: 231) advised that evaluation be a ‘compromise’ between prospective and retrospective views.

The next sections describe the evolution of implementation studies over several ‘generations’ and the key notions limiting and underlying the discipline.

2.2 Implementation studies

According to DeLeon (1999: 312), implementation studies was established in the United States as a specialisation in the public administration and political studies fields to challenge the commonly-held belief that the 1960s

War on Poverty programs were not so much the fault of the analytic brain trust that created them, but deficiencies within the governmental bureaucracy—i.e. them, not us—asked to carry them out.

In other words, pioneering implementation theorists (Derthick, 1972; Pressman and Wildavsky, 1973) questioned what they regarded as the one-sided assessments from policymakers who presumed that their good policies had failed due to bad implementation. Proponents of implementation studies have since argued that policy analysts need to focus

upon ‘what implementation can deliver in practice, as opposed to clinging to unfulfilled promises’, because the ‘mere existence of good policies does not automatically result in successful implementation’ (Brynard, 2007: 364, 357). The next sections detail implementation theorists’ attempts to challenge conventional policy critiques from the vantage point of those responsible for realising over three ‘generations’ of debate (Goggin et al., 1990). I also include summaries of influential implementation frameworks, and describe two key limitations and four assumptions in implementation studies.

2.2.1 First generation (1970s–1980s)

According to Goggin et al. (1990: 13), the ‘first generation’ mostly produced works that identified ‘how a single authoritative decision was carried out’, and outlined the various outputs and factors that facilitated or constrained the achievement of policy objectives. Put simply, first generation theorists wrote detailed case studies about the enactment of specific policies and the subsequent context-specific results that stemmed from those decisions. Mazmanian and Sabatier (1989: 6) commended Pressman and Wildavsky for being ‘seminal’ first generation theorists who distinguished implementation studies from preceding policy research and ‘set the tone for much of the implementation literature to follow’. Investigating why a ‘large-scale’ national programme with multiple policy aims, ample political support and funding had failed in the United States, Pressman and Wildavsky (1973: 6) observed that

the “technical details” of implementation proved to be more difficult and more time-consuming than the federal donors, local recipients, or enthusiastic observers had ever dreamed they would be.

The ‘technical details’ which confounded implementation included the ‘difficulties of translating broad agreement into specific decisions’, and the ‘complexity of joint action’ among parties that did not share priorities, methods or resources (Pressman and Wildavsky, 1973: 6, 87). Mazmanian and Sabatier (1989: 6) later explained that misalignment between supposed partners is typical in multi-objective policymaking¹⁴ because decision-making and delivery involves a ‘myriad’ of public and private institutions. In consideration of these technical implementation details, Pressman and Wildavsky highlighted that implementation of complicated cross-disciplinary policy is dependent on political bargaining amongst representatives of multiple organisations and levels of government.

¹⁴ Based on Mazmanian and Sabatier’s (1989: 6) description, decision-making and provision in single-objective policymaking is likely limited to ‘the actors within a single agency and its immediate political environment’.

McLaughlin (2012: 171, 172) heralded first generation theorists for bringing attention to the ‘uncertain relationship between policies and implemented program’; and showing ‘how local factors such as size, intra-organizational relations, commitment, capacity, and institutional complexity molded responses to policy’. Schofield (2001: 249), however, critiqued first generation theorists for focusing too much on ‘implementation success or failure, as a function of flawed or imperfect primary legislation and a failure of bureaucratic compliance’; and failing ‘to produce real models to help the predictability of policy outcomes’. Schofield’s criticisms reflect the second generation’s movement against ‘rational’ models in implementation studies, whereby ‘implementation is clearly defined in terms of a relationship to policy as laid down in official documents’ (Hill and Hupe, 2010: 44).

2.2.2 Second generation (1980s)

Schofield (2001: 249) observed that the ‘second generation’ was ‘consciously more analytical’ than its predecessor, and sought, in particular, to identify predictive universal implementation variables¹⁵ for the purpose of developing frameworks that explained why certain policy processes succeeded whilst others failed. For instance, Mazmanian and Sabatier (1989) outlined 21 legal, non-legal or process-related variables that can affect the effective implementation of policy. Schofield (2001: 249) stated that Mazmanian and Sabatier’s *Implementation and Public Policy* (1989) is an exemplary second generation work that grappled ‘extensively with complex public sector arenas’. A further discussion of their framework is featured in Section 2.3.1. I next present two influential second generation frameworks that used a prospective and retrospective binary to explain policy processes.

2.2.2.1 Top-down versus bottom-up perspectives

Second generation theorists developed the ‘bottom-up’ perspective in response to the top-down rationale that dominated policy studies. Popularly understood as conventional and bureaucratic systems (Sohail et al., 2001), top-down approaches are characterised as an executive-led process in which directors or managers make decisions and orders that trickle down to lower levels of a hierarchy. These ‘policy designers’ (formulators) tended to ‘concentrate their attentions on factors that [could] be manipulated’ (Matland, 1995: 146), and attributed failure to implementers who did not follow the strategies set by higher-level

¹⁵ These variables are synonymous with the technical details that Pressman and Wildavsky had identified.

officials (Elmore, 1980: 609). Given this viewpoint, Elmore stated that policymakers consequently gave implementers limited discretion due to distrust. Further reflecting a high-level bias, Sabatier (1986: 22) said top-down proponents value the opinions of external experts in policy design to determine how ‘legally-mandated objectives [are to be] achieved over time’. In sharp contrast, bottom-up approaches are depicted as people-driven processes whereby various individuals and groups collaboratively interact, make decisions and strategise together (Allison, 2000; Mcewan, 2003; Pillay et al., 2006; Sabatier, 1986).

Despite being described as fundamentally distinct, there is actually significant overlap between top-down and bottom-up approaches in practise—especially in local governments where officials often are responsible for policy design and implementation (Sabatier, 1986; Sabatier et al., 2005). The two perspectives are nevertheless frequently depicted as opposing sides of a binary in both popular and academic literature. For example, Sabatier et al. (2005: 4-7) stated that a study on water catchment agencies in the United States showed that there was a strong interest in replacing ‘top-down, agency-dominated approach’ with ‘a much more collaborative bottom-up approach involving negotiations and problem solving’. I summarise the perceived differences between the two approaches based upon the key actors involved, the scale of focus, the general aim and the evaluative criteria used to determine success in Table 1.

Table 1: Top-down versus bottom-up approaches (Adapted from Sabatier, 1986: 33).

	Top-down	Bottom-up
Key policy actors	Central government policymakers, decision-makers and implementers	A network of ‘street-level’ actors involved in implementation
Scale of focus	‘Starts from a policy decision and focuses on the extent to which its objectives are attained over time’	Identifies the involved actors and focuses on how to optimise their interaction to improve policymaking
Overall goal	‘How does one steer the system to achieve (top) policy-maker’s intended policy results?’	‘Strategic interaction among multiple actors in a policy network’ for effective implementation
Evaluative criteria	Policy actors’ compliance with the set objectives and processes, with some consideration of ‘politically significant criteria and unintended consequences’	Open-ended, such as taking into account the actual outcomes that are ‘relevant to the policy issues or problem’

2.2.2.2 Forward versus backward mapping approaches

Elmore (1980) also used a binary concept to contrast forward mapping from backward mapping. The former is similar to the top-down approach because

It begins with an objective, it elaborates an increasingly specific set of steps for achieving that objective, and it states an outcome against which success or failure can be measured (Elmore, 1980: 603).

While forward mapping transpires from the policymakers' 'statement of intent' to their goal (Elmore, 1980: 604), backward mapping begins with 'the specific behavior at the lowest level of the implementation process that generates the need for a policy', and subsequently determine the objectives and steps that should be undertaken to achieve their aims. Aside from differences in perspective, Elmore (1980: 603) stated forward and backward mappers work from contrary assumptions. Forward mappers tend to presume that 'policymakers control the organizational, political, and technological processes that affect implementation' (Elmore, 1980: 604). Backward mappers, on the other hand, question whether policymakers should influence or have control over implementation. Elmore further stated that backward mappers do not believe that thorough specification of objectives or tasks from policymakers necessarily increases the likelihood of successful policy implementation. I condense the supposed differences between forward and backward mapping in Table 2.

Table 2: Forward versus backward mapping (Abridged from Elmore, 1980).

	Forward mapping	Backward mapping
Key policy actors	Policymakers and implementers	Various actors interested in achieving an objective they have set
Scale of focus	Starts with a precise 'statement of intent' that is followed by a 'sequence of increasingly more specific steps' for each level of implementation	Works from the 'interface' between 'administrative actions' and 'private choices' towards the desired objective
Goal	To achieve an objective set by policymakers	To achieve a 'relatively precise target' defined by 'the lowest level' in an implementation hierarchy
Evaluative criteria	Success is measured by whether 'the original statement of intent' was achieved	Success is based on the actors' and/or public organisations' ability to influence the behaviour of other actors

The second generation of implementation theorists tried to address the shortcomings of the preceding generation's case-specific outputs by producing complex causal frameworks that linked policy with its outcomes (Hill and Hupe, 2010; McLaughlin, 2012). The major frameworks developed during this period centred on the effect of either variables or perspectives during policy implementation. Goggin et al. (1990) and Matland (1995) lauded this generation of theorists for developing these analytical aspects of implementation studies, but they stated that the second generation (like the preceding cohort) primarily produced context-specific frameworks that could not be universally applied. For instance, O'Toole (1986, as cited by Matland, 1995: 145-146) had tallied 'over three hundred key variables' in a literature review of one hundred implementation studies, but there seemed to be no systematic means for structuring or analysing the multivariate data amongst the various authors. Matland (1995: 146), upon deliberation of O'Toole's observation, stated that

A literature with three hundred critical variables doesn't need more variables:
It needs structure.

Moreover, the second generation's perspective models were logical in theory but not popularly practised at the time. The next generation hence sought to build upon their predecessors' advancements in multivariate analysis and perspective frameworks by finding a universal means to test hypotheses and analyse data.

2.2.3 Third generation (Late 1980s–present)

According to Hill and Hupe (2010: 66), a major focus of 'third generation' theorists was to identify 'more scientific' approaches to multivariate analysis that could explain or predict implementation beyond individual case studies. As a result of this ambition, Saetren (2014: 86) commented that a 'unique' characteristic of this period's work is 'its rigorous research design' in which: key variables are 'clearly defined'; 'hypotheses [are] derived from theoretical constructs'; and analyses are broadened across policy sectors and timeframes of 'at least 5 to 10 years'. The third generation also distinguished itself from its predecessors by supplementing its qualitative analysis with quantitative data (Schofield, 2001: 248).

Nevertheless, like the first and second generations, Hill and Hupe (2010) stated that this group of theorists failed to develop a comprehensive framework that captured the complexity of the entire policy process. Saetren (2014: 84) concluded that, whilst the third generation of implementation studies incrementally built upon its predecessors' works, 'more

progress ha[d] been achieved on methodological than theoretical fronts'. Such a conceptual shortcoming is expected, as design theorists Rittel and Webber (1973: 155) commented that

The search for scientific bases for confronting problems of social policy is bound to fail, because of the nature of these problems. They are "wicked" problems, whereas science has developed to deal with "tame" problems. Policy problems cannot be definitively described... there are no "solutions" in the sense of definitive and objective answers.

Rittel and Webber, in other words, contended it was illogical to apply a methodological mind-set to complex societal problems, because life does not progress like a science project in which problems are accurately identified, research subjects are completely controlled, methods are efficiently executed and solutions are rationally derived. Following Rittel and Webber's (1973: 169) logic, I accept that there often 'is no rule or procedure to determine the "correct" explanation or combination' of societal problems; and that change inevitably results from policy initiatives, though individuals may not be able to direct the manner in which it unfolds, or get the outcome they want. Additional discussion of key limitations in implementation studies is presented next.

2.2.4 Key limitations

2.2.4.1 Lack of a common framework

Some implementation theorists have expressed disappointment with the 'low degree of theoretical coherence'—such as the lack of a common framework—in the discipline (DeLeon, 1999; Goggin et al., 1990; Hill and Hupe, 2010: 12; Matland, 1995). An expectation for a universal framework as the cumulative work from a string of individuals over three generations of theorisation seems contrary, however, to implementation studies' fundamental argument of processes not progressing in a linear fashion over time. There is a conundrum, moreover, with suitably framing representing a range of policies and 'a very complex process, occurring across time and space, and involving multiple actors' (Hill and Hupe, 2010: 43) in one framework. This inability to portray all facets of reality can be said of any representation—regardless of whether it is an analytical framework, a policy, a painting, computer-generated imagery and so forth. These challenges suggest, as noted earlier, that no theoretical framework or model can capture or explain the policy process in its entirety. Winter (as referenced by Saetren, 2014: 96) hence advised that his peers accept 'diversity' in the discipline, and start 'developing and testing' hypotheses to advance policy theorisation.

I do not presume that implementation can be represented in one framework, nor do I attempt or claim to represent the entire South African sanitation policy process in this thesis. Rather, I use an implementation framework as a means of data-gathering (Schofield, 2001: 247) and to examine the different rationalities and processes I observed in my case studies.

2.2.4.2 Negative binary focus

DeLeon (1999: 320) explained that policy implementation ‘has largely been an exercise in negative thinking and doing’ because most theorists have ‘concerned themselves with policy failures, with only a hint of success’. Due to this disproportionate focus on failure, it is unsurprising that a defensive ‘them, not us’ position is also pervasive in implementation studies. The popularity of the top-down/bottom-up framework further validates DeLeon’s critique of theorists’ penchant for binate analysis.

Anthropologist Jack Goody (2000: 36, 82) cautioned against using opposing binaries in analysis because he thought such modes of classification simplified complex concepts that have polysemic (multiple) meanings. Goody’s (2000: 1–2) comments are significant for my work because the superficial but useful ‘we/they division’ based on ethnocentric¹⁶ definitions of what is ‘right’ or ‘wrong’ has largely been accepted in policy planning (DeLeon, 1999; Rittel and Webber, 1973), and adopted in practical sanitation discourse (Albuquerque and Roaf, 2011; Chambers, 2009; EAWAG, 2005; Haldar, 2010; Hofmann and Mattingly, 2006; Stenstrom et al., 2011; Winblad and Kilama, 1985). In order to avoid an analytical framing with a negative binary focus, I analyse the ‘lessons learnt from program successes’ and ‘policy failures’ (Brynard, 2007: 364); and self-reflexively gather and evaluate data according to its context as Goody (2000: 65) advised (see Section 3.1).

I now turn to an outline of four implementation studies assumptions that informed my understanding of the policy process.

2.2.5 Key assumptions

2.2.5.1 Policies should be workable

A major purpose of implementation studies—especially in the second generation—was to broaden policy mind-sets beyond prospective approaches because implementation theorists did not think the preconditions in top-down or forward planning were realistic. Due to this

¹⁶ A central concept of bias in anthropology, ethnocentrism refers to the judgment of an ethnic group’s beliefs and practises according to the values and standards of another group.

objective, Browne and Wildavsky (1983: 230) worked towards ‘influencing policy design instead of policy implementation’ by modifying extant prospective approaches with inferences from bottom-up or backward mapping. Browne and Wildavsky (1983: 230) postulated that implementers, as a result of changing policy design, would less likely ‘scrounge around for workable objectives along the way’.

2.2.5.2 Implementation is a study of change

While policy formulation sets expectations and evaluation is analytical, implementation is characterised by dynamism (Mazmanian and Sabatier, 1989: 39; Schofield, 2001). DeGroff and Cargo (2009: 248) remarked that

Implementation has long been recognized as a distinct stage in the policy process, unique for representing the transformation of a policy idea or expectation to action aimed at remedying social problems.

Put differently, implementation embodies transformation because it turns ideas¹⁷ into action. In addition, implementation theorists study changes that occur throughout the policy process as individuals (and the various institutions or interests they represent) introduce new dimensions during the implementation phase (DeGroff and Cargo, 2009; Elmore, 1980; Hill and Hupe, 2010; Mazmanian and Sabatier, 1989). As a result of these new variables, ‘learning, adaptation and exploration’ are inherent to policy implementation (Hill and Hupe, 2010: 45). Implementation studies thus explore two types of change: ‘how change occurs’ and ‘how it may be induced’ (Parson 1995: 461, as cited by DeGroff and Cargo, 2009: 48).

2.2.5.3 Implementation is complex

According to Mazmanian and Sabatier (1989: 39), implementation is complicated by the ‘sheer number of variables involved’; and a variable’s fluctuating state—which can unpredictably affect other variables through a ‘rippled effect’. Mazmanian and Sabatier (1989: 14) also noted that complexity of policy implementation is dependent on scale—especially when dealing with different levels of government. For instance, some policies only entail ‘basic knowledge’ of issues with a small group of actors, while ‘extraordinarily difficult ones’ touch upon a range of technical, economic and political concerns with multiple agencies (Mazmanian and Sabatier, 1989: 14). Mazmanian and Sabatier (1989: 39) hence

¹⁷ I define ideas as unconscious or formulated beliefs, thoughts or concepts.

suggested that identification of the ‘many variables’ that affect implementation is the ‘important first step in understanding its complexity’, as well as ‘developing an appreciation of the enormity of... changing the status quo through governmental action’.

2.2.5.4 Implementation dominates outcomes

In opposition to top-down or prospective planning, implementation theorists generally were of the opinion that policymakers cannot ‘mandate what matters’ during implementation at a local level, because ‘implementation dominates outcomes’ (McLaughlin, 2012: 171–172). In other words, implementers affect policy results more than the ‘official’ policymakers (Schofield, 2001: 257) because the former are responsible for strategically balancing ‘pressure and support’ to effect local ‘policy-directed change’ (McLaughlin, 2012: 171).

2.3 Implementation variables framework

For this thesis, I further developed a second generation implementation variables framework to analyse my data because the first generation’s theorisation lacked analytical rigour, and the third generation’s scientific and quantitative emphasis was unsuitable for my qualitative study on conflicting rationalities. I specially adapted Mazmanian and Sabatier’s (1989: 30) multivariate framework to explore how policy transforms after ‘the politics of implementation takes place’. Their framing was appropriate for my study because:

- Mazmanian and Sabatier (1989: 39) broke down the complexity of the policy process from various perspectives, and ascertained whether laws or policies shape the successive ‘implementation process—through establishing goals, priorities, incorporating a casual theory, providing adequate resources, etc.’
- Unlike other implementation theorists, Mazmanian and Sabatier specially included technical variables in their framework¹⁸. This inclusion is significant for my work, because sanitation delivery involves technological systems and knowledge.

I next present Mazmanian and Sabatier’s 21-variable implementation framework. This description is followed by a critique of their framework and motivation for adapting it. To

¹⁸ Mazmanian and Sabatier likely had technical indicators because much of their research centred on addressing environmental concerns through public policy and technology (Mazmanian and Kraft, 2009; Mazmanian and Sabatier, 1989; Rochon and Mazmanian, 1993; Sabatier and Mazmanian, 1983; Sabatier et al., 2005).

note, Sabatier and Mazmanian (1979) had published their framework in a journal article and book in 1983. I cite primarily from the second edition version of *Implementation and Public Policy* that was published in 1989. I mention this chronology because I later refer to criticisms that Sabatier (1986)¹⁹ made of his joint work with Mazmanian before the second edition was published.

2.3.1 Mazmanian & Sabatier's framework

When improving the implementation of policies that involved multiple government agencies and interest groups, Mazmanian and Sabatier (1989: 24) believed that

relatively difficult problems [could] be ameliorated through a more adequate understanding of the manner in which statutory²⁰ and political²¹ variables affect the mobilization of support necessary to bring about rather substantial behavioral change.

In other words, Mazmanian and Sabatier (1989: 23, 20) hypothesised that: (a) policy is directed at a 'target group whose behavior needs to be changed'; and (b) understanding the 'crucial' variables which garner support for said change initiatives should even ease implementation in the most challenging conditions. Mazmanian and Sabatier (1989: 19) designed their implementation framework based on the supposition that variables are essentially 'access points' that formulators and implementers can use to 'influence the course of events'. Of the 21 variables in their framework, they identified 16 statutory and political variables that affected the achievement of technically oriented policy goals from their case studies. What follows is a description of these variables, categorised according to the three distinct 'sets of factors' (headings) that Mazmanian and Sabatier (1989: 14) had used.

2.3.1.1 Tractability of the problem

Mazmanian and Sabatier (1989: 21) contended that some 'problems are simply much easier to deal with' due to their 'inherent tractability' (malleability). For example, controlling a residential neighbourhood's noise pollution is easier than harnessing nuclear energy. Mazmanian and Sabatier (1989: 21) said policymakers should consider the following when attempting to control complexities 'inherent in the nature of the problem itself':

¹⁹ Sabatier's 1986 critique was included as a postscript in the 2nd edition of *Implementation and Public Policy*.

²⁰ 'Statutory' or 'legal' variables relates to what is legislated or permissible by the government.

²¹ While Mazmanian and Sabatier do not explicitly define the term 'political', I understand it as signifying partisan interests—such as party politics in government affairs.

- **‘Technical difficulties’**: A ‘valid theory’ linking behavioural change to a ‘problem solution’ and an easy and ‘inexpensive’ means to measure change should be identified in technically oriented policies (Mazmanian and Sabatier, 1989: 24). Mazmanian and Sabatier (1989: 23) also suggested that policymakers bear in mind that scientific concepts (theory) and their products (technology) can cause unintended social problems, and that implementers’ capability is restricted if success is ‘contingent’ or ‘predicated upon the availability or development of specific technologies’.
- **‘Diversity of target group behaviour’**: Although regulations should accompany policy to ensure that standards are met, the framing of a common set of ‘clear regulations’ by policymakers is difficult because the behaviours they are regulating will vary according to local contexts (Mazmanian and Sabatier, 1989: 23). Recognising that policy guidance is most successful when it addresses ‘minimal variation in the behavior which causes the problem’, Mazmanian and Sabatier (1989: 24, 23) stated that policymakers might need to give implementers: ‘greater discretion’ when policing a ‘diversity’ of undesirable behaviour; and context-specific regulations ‘economic incentives’ (such as pollution taxes) to encourage acceptable behaviour.
- **‘Target group as a percentage of the population’**: It is easier to mobilise political support and achieve policy objectives when a ‘smaller and more definable (capable of being isolated) target group’ is identified (Mazmanian and Sabatier, 1989: 23–24).
- **‘Extent of behavioural change required’**: Successful implementation is dependent on ‘the amount of behavioral modification required’ from the target groups—with a ‘modest’ amount being most ideal (Mazmanian and Sabatier, 1989: 24).

2.3.1.2 Ability of statute to structure implementation

Mazmanian and Sabatier (1989: 25) purported that policymakers can ‘substantially’ ease the difficulty of implementation by shaping the following:

- **‘Clear and consistent objectives’**: Goals which are ‘precise and clearly ranked in importance’ can be: (a) ‘an indispensable aid in program evaluation’—especially when detecting ‘discrepancies’ between objectives and outcomes; (b) ‘unambiguous directives’ to implementers; and (c) ‘a resource to supporters’ when backing and monitoring policy (Mazmanian and Sabatier, 1989: 25).

- **‘Incorporation of adequate causal theory²²’**: Since ‘inadequate causal theories lie behind many of the cases of implementation failure’, Mazmanian and Sabatier (1989: 26) advised that policymakers understand the ‘causal linkages between government intervention and the attainment of program objectives’, and give implementers jurisdiction over the ‘critical linkages’ that affect programme outcomes.
- **‘Initial allocation of financial resources’**: Mazmanian and Sabatier (1989: 26) stated that ‘inadequate’ funding ‘can doom a program before it begins’—for it affects who is hired, which projects are administered, what regulations are developed and how compliance is monitored. The initial financial allocation is especially significant to implementers in public institutions because it generally serves as a ‘crude indicator’ (baseline) for successive annual budgeting (Mazmanian and Sabatier, 1989: 46).
- **‘Hierarchical integration within and among implementation institutions’**: ‘One of the best-documented findings in implementation literature is the difficulty of obtaining coordinated action’ within and amongst multiple ‘semi-autonomous’ entities (Mazmanian and Sabatier, 1989: 27). Mazmanian and Sabatier suggested that policymakers promote their agenda amongst implementing institutions and target groups by: (a) avoiding ‘loosely integrated’ (decentralised) systems which allow ‘considerable variation’ in behaviour; (b) reducing ‘veto’ or ‘clearance’ points²³; and (c) ensuring ‘acquiescence’ with ‘inducements and sanctions’.
- **‘Decision rules of implementing agencies’**: This variable is based on the supposition that policymakers can influence the decisions implementers make by stipulating how implementers make decisions—such as requiring a majority of support in multi-actor collaborations; or requiring that policy outputs are ‘fully consistent’ with their objectives (Mazmanian and Sabatier, 1989: 27).
- **‘Recruitment of implementing officials’**: Mazmanian and Sabatier (1989: 28) said policy is ‘unlikely’ to be achieved if implementers are not ‘strongly committed’ to the objectives, for their support is needed ‘to develop new regulations and standard

²² Mazmanian and Sabatier (1989: 25) implied that causal theory in policy implementation is ‘the manner in which objectives are to be attained’.

²³ Mazmanian and Sabatier (1989: 46) neither explicitly define nor distinguish between veto and clearance points, though they stated that both ‘involve those occasions on which an actor has the capacity... to impede the achievement of legal objectives’. Based on the criteria they use when calculating veto and clearance points, the former concerns political support for a policy, whilst the latter concerns endorsement during implementation.

operating procedures and to enforce them'. Gaining such support can be tricky, however, because implementation might be assigned to institutions that are 'ambivalent or hostile' towards the policy, or to individuals who are difficult to hold accountable due to their having 'civil service protection'. Mazmanian and Sabatier (1989: 28) claimed that policymakers could ensure the commitment of implementers by: (a) creating a new agency 'to administer' the policy; (b) assigning duties to an existing department whose mandated functions are 'consistent' with their objectives; or (c) get 'top implementing officials' who personally supported the policy involved.

- **'Formal access by outsiders'**: Mazmanian and Sabatier (1989: 28) suggested that policymakers consider the extent to which their 'opportunities for participation' are 'biased towards supporters of legal objectives', because interest groups that support policy tend to be best represented in official participatory processes.

2.3.1.3 Nonstatutory variables affecting implementation

Mazmanian and Sabatier identified five non-legal variables that influence policy outcomes either centred on societal support in certain situations or reflected a specific actor's perspective. What follows is a description of the 'intervening' situational variable or external (i.e. non-implementing) actors in Mazmanian and Sabatier's (1989: 30) framework:

- **'Socioeconomic conditions and technology'**: Mazmanian and Sabatier (1989: 30–31) said that socioeconomic and technical issues affect general policy support in four ways: (a) the allocation of 'scarce resources' is 'likely to diminish' if either the perception of the 'seriousness' of the problem changes, or 'other social problems become relatively more important over time'; (b) the extent of policy flexibility and 'administrative discretion' given to account for context-specific needs; (c) the framing of general protections, which tend to correspond with the target groups' financial resources and their 'relative importance in the total economy'; and (d) when policy is 'directly tied to technology', 'changes or the lack of changes in the technological state of the art over time are obviously crucial'.
- **'Public support'**: The 'general public' can affect legal and administration agendas through media 'interaction' or 'opinion polls', but the public's support is generally difficult to attain because it varies among jurisdictions, and retain over time due to its 'episodic' or 'cyclical' nature (Mazmanian and Sabatier, 1989: 31, 32).

- **‘Attitudes and resources of constituency groups’**: Mazmanian and Sabatier noted that constituency groups’ might influence implementation in numerous ways. Proponents, for example, might supplement the policy implementers’ resources, whereas opposing groups might publish reports critiquing an agency’s performance and appeal to policymakers, court officials or the general public to instigate change.
- **‘Support from sovereigns’**: A sovereign is: (a) an ‘important legislator or executive official’ that has the capability to affect an implementing institution’s processes ‘through both informal oversight²⁴ and formal changes in the agency’s legal and financial resources’; and (b) a ‘protector’ or ‘fixer’ who ‘controls resources to closely monitor the implementation process and to intervene on an almost continuous basis’ (Mazmanian and Sabatier, 1989: 33, 34). Mazmanian and Sabatier (1989: 33) noted that sovereigns can complicate implementation of inter-departmental and inter-agency programmes, because implementers tend to receive ‘conflicting directives’ from ‘different sovereigns who wish to pursue different policies’.
- **‘Commitment and leadership skill of implementing officials’**: Mazmanian and Sabatier (1989: 34) said that the implementers’ course of action, prioritisation and ‘ability to go beyond’ policymakers’ expectations—especially in light of limited resources—‘most directly’ affects policy outcomes.

In addition to the outlined sets of factors that affect implementation, Mazmanian and Sabatier (1989: 14) divided the implementation process into five ‘analytically distinct’ stages. I summarise their stages variables next.

2.3.1.4 Stages (Dependent variables)²⁵ in the implementation process

Mazmanian and Sabatier subdivided the implementation process to help policymakers discern the roles and perspectives of various actors in policymaking. To note, I merged two variables (the ‘actual’ and ‘perceived’ impacts of policy) into one description due to their similarities.

²⁴ Oversight is supervision of an agency by ‘its legislative (and executive) sovereigns’ through formal hearings or committee consultations, and ‘routine requests’ such as reports (Mazmanian and Sabatier, 1989: 33).

²⁵ Their use of ‘dependent variables’ is unclear. Mazmanian and Sabatier (1989: 35, 21) said each stage ‘can be thought of as an end point or dependent variable’, as well as ‘an input into successive stages’ that ‘affects subsequent ones’. The latter phrasing infers that stages are contingent upon one another, but the former description left me unsure of whether they were distinguishing between or denoting the similarities of end points and dependent variables. Due to their vagueness I do not refer to stages as ‘dependent variables’, but cite it here to reflect the language they used.

- **‘Policy outputs of implementing agencies’**: Policymakers generally ‘translated’ objectives into operating procedures, special permits or licenses, which thereafter are enforced through regulations (Mazmanian and Sabatier, 1989: 35). Mazmanian and Sabatier (1989: 36) noted that implementers, in turn, are expected to follow rules, though ‘some discretion is invariably involved’.
- **‘Compliance with policy outputs of target groups’**: Perception of the ‘legitimacy of the rules’ influences whether individuals follow laws, as well as their cost-benefit analysis of: the costs of compliance; the types of ‘sanctions’ (such as fines or jail terms) for noncompliance; and the ‘probability that noncompliance will be detected and successfully prosecuted’ (Mazmanian and Sabatier, 1989: 37).
- **‘Actual impacts of policy outputs’ & ‘Perceived impacts of policy outputs’**: Mazmanian and Sabatier distinguished between a policy’s actual and perceived impacts by denoting the interest or perspective of the actor who is evaluating policy. They contended that the former indicates policy analysts’ and administrators’ interest in the tangible outcomes of implementation, whilst the latter mirrors the values and expectations of government officials and constituency groups.
- **‘Major revision in statute’**: Mazmanian and Sabatier (1989: 38) viewed revision as the ‘culminating stage’ of a policy process, though they noted that it ‘may be repeated several times’ in a policy cycle due to changes in the aforementioned variables.

In total, Mazmanian and Sabatier identified 21 variables in the implementation process. Their framework is depicted as a skeletal diagram in Figure 5. Mazmanian and Sabatier (1989: 39) acknowledged that the diagram is a ‘truncated picture of the process’, as ‘it is virtually impossible to depict *all* of the actual interaction patterns and the respective feedback loops’ as a two-dimensional model. They nevertheless designed it to illustrate some of the linkages between variable sets and the overall complexity of implementing policy.

2.3.2 Framework critique & modifications

Rather than apply Mazmanian and Sabatier’s framework in this thesis, I adapted their multivariate framework for three major reasons. I next critique their framework, and explain why and how I developed a user-friendly framework inspired by their work to analyse my conflicting rationalities data.

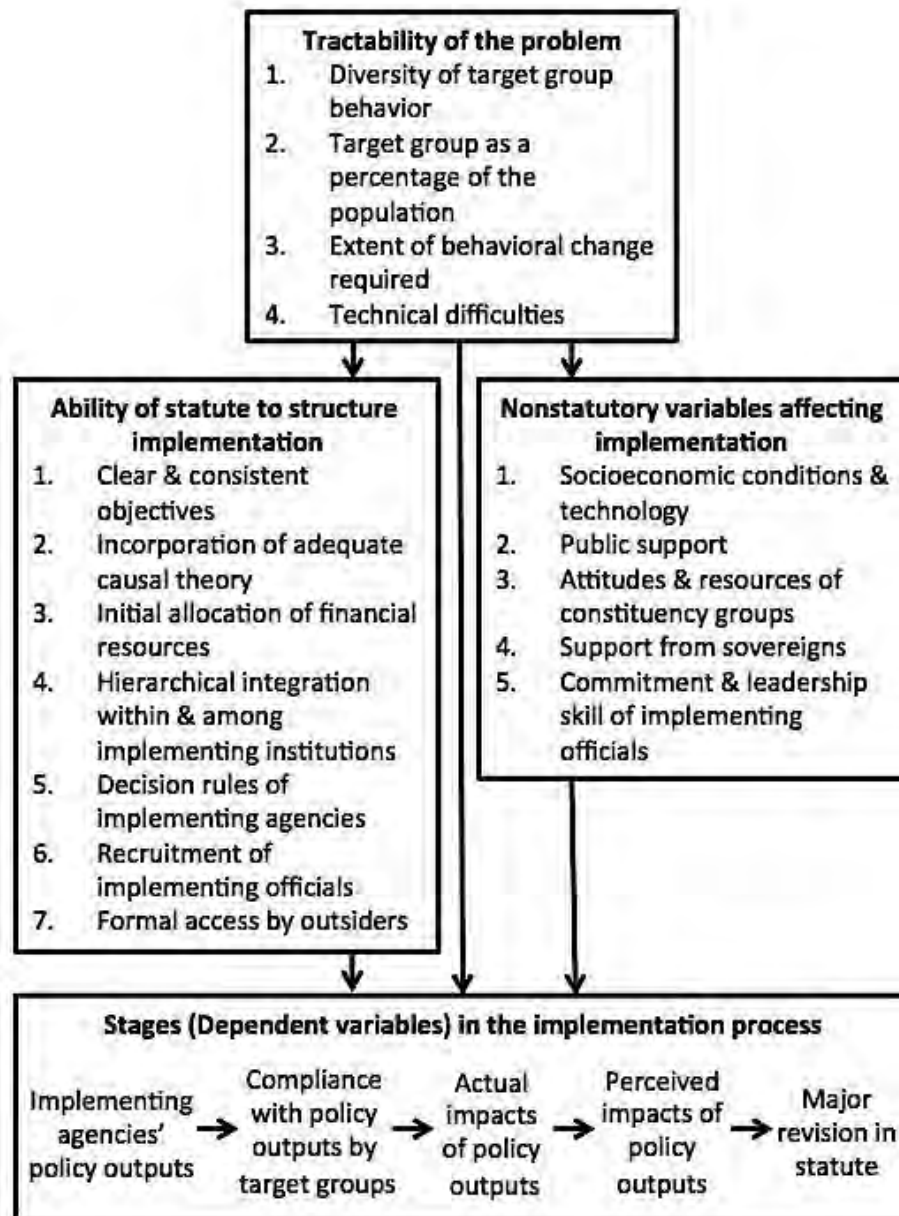


Figure 5: Skeletal diagram of Mazmanian & Sabatier's (1989: 22) framework.

2.3.2.1 Top-down rationalisation & intent

Mazmanian and Sabatier (1989: 41) focused on optimising 'effective implementation' by 'enabling legislation' and obtaining political support from implementing agencies, organised constituency groups, decision-makers and the general public. Mazmanian and Sabatier (1989: 43) stated that their interests in the 'legal imperative' in implementation

stem[med] from our conviction that, insofar as possible, policy decisions in a democracy ought to be made by elected officials rather than civil servants.

Given this conviction, Mazmanian and Sabatier (1989: 43) aimed to garner elected officials' attention by proving that 'much of bureaucratic behavior may be explained by the legal structure (or lack of such structure)' in policy design; and 'to demonstrate the mechanisms whereby legislators and chief executives [could] formally affect the implementation process through statutory design'. These mechanisms are catalogued in the 'Ability of statute to structure implementation' variable set. As Mazmanian and Sabatier postulated, the influence of legal structure on policy implementation has been observed in practise. Meier and McFarlane (1995, as cited by DeLeon, 1995: 316-317), for example, remarked that by utilising Mazmanian and Sabatier's framework they gained 'key insights' in their case studies on how 'public officials who craft policies can make a difference', for 'their influence endures' in the successive implementation structure and process.

While I do not doubt the link between written and practised policy, I protest the stance that variables should be 'engineered' (DeLeon, 1999: 316) or 'manipulated' to 'coherently structure the implementation process' (Mazmanian and Sabatier, 1989: 39, 25), because:

- In spite of the many 'uncontrollable' factors in public administration that can 'substantially undermine the attainment of [legal] objectives' (Mazmanian and Sabatier, 1989: 19, 43), this top-down viewpoint assumes that implementation can be controlled through 'process modelling' (Hill and Hupe, 2010: 49).
- If one is interested in improving policymaking, it seems more sensible to understand the results of 'interactions' between variables in the implementation process (Hill and Hupe, 2010: 49) than trying to control the process.

Moreover, Sabatier (1986: 30) admitted in hindsight that the implementation variables framework that he and Mazmanian had conceived of in the late 1970s and early 1980s had two major failings: (a) it 'did not provide a good conceptual vehicle for looking at policy change over periods of a decade or more'; and (b) it 'focused too much on the perspective of program *proponents*, thereby neglecting the strategies (and learning) by other actors' throughout the policy process. His second criticism suggests that Sabatier recognised that the top-down bias in the implementation variables framework was a severe limitation.

Instead of instrumentally controlling the behaviour of institutions or individuals, I re-grouped the categories and re-labelled the variables in Mazmanian and Sabatier's framework to enable my investigation of various policy actors' perspectives and practises in sanitation

polycymaking. My re-structuring of the framework is based on Hill and Hupe's (2010: 50) understanding that Mazmanian and Sabatier had essentially identified 'factors that may be controlled' and 'factors that will cause difficulties'. I first re-categorised Mazmanian and Sabatier's variables so that the variable sets did not focus on influencing behaviour. Motivated also by my belief that politics cannot be separated from processes, I merged Mazmanian and Sabatier's 'Ability of statute to structure implementation' and 'Nonstatutory variables affecting implementation' into one set of factors called the 'Policy-implementation process'. Whilst I still review the 'legally mandated goal' that might be guiding the policy process and the 'organizational maintenance and survival' tactics of implementers as Mazmanian and Sabatier (1989: 19) intended, I also seek to understand the interaction between policy and implementation. With regard to the 'Tractability of the problem' and 'Stages (dependent variables) affecting implementation' variable sets, I re-labelled both to denote my intent of understanding what occurs when identifying a 'Policy target' and when assessing the overall process in 'Policy evaluation'.

2.3.2.2 Variable consolidation & language clarification

I consolidated the actor-related variables in Mazmanian and Sabatier's framework and clarified their language to allow greater comparison between actors' rationales, reduce variable repetition²⁶ and make the framework more user-friendly. Mazmanian and Sabatier's framework tended to reflect upon a specified actor's perspective in a variable. Due to this emphasis, Mazmanian and Sabatier had multiple variables that addressed similar themes of compliance or political support according to different actors. Their division according to perspective would have made it difficult to consider interplay amongst actors and was thematically repetitive. It also made the model far more complex than necessary. In light of these difficulties, I re-ordered the variables and merged similar variables according to common themes in my adaptation. For example, Mazmanian and Sabatier's variables on 'Hierarchical integration within and among implementing institutions' and 'Decision rules of implementing agencies' both speak to formality in institutional arrangements and policy rules. The two variables reflect the classic tension between centralisation and decentralisation of power when coordinating multiple agencies that are jointly responsible for

²⁶ Matland (1995: 146) also remarked that Mazmanian and Sabatier's 'rigorous, empirically based model' catalogues a 'comprehensive' though imprecise list of variables that affect public administration. Mazmanian and Sabatier's 'lack of parsimony', Matland reflected (1995: 146), is 'one of the more striking problems and recurrent criticisms of implementation research'.

implementation. I thus merged these two variables under the umbrella ‘Extent of (de)centralisation’, and consider the degree to which ‘Decision-making’ or ‘Veto and clearance points’ of involved actors might be characterised as decentralised or centralised processes. This change in emphasis seems especially pertinent to my study given the South African sanitation sector’s tendency to decentralise aspects of decision-making to implementers whilst centralising infrastructure management and regulation among political leaders or senior managers (CoCT, 2008; Crous, 2013; Gounden et al., 2006; Taing et al., 2014). Lastly, like DeLeon²⁷ suggested, I simplified the language Mazmanian and Sabatier had used for greater clarity, using terms in my adaptation that are commonly used in contemporary South Africa or policy studies.

2.3.2.3 Policy actor labels

I also was concerned with Mazmanian and Sabatier’s (1989: 12) description of what they viewed as the ‘three quite different perspectives’ in policy implementation:

- The ‘initial policymaker’, who tended to be high-level officials or institutions at ‘the center’ of policymaking and interested in invoking and attaining the policies they set;
- The ‘field-level implementing officials’ or institutions that are meant to action policy at ‘the periphery’; and
- The ‘target group’ or ‘private actors at whom the program is directed’.

Firstly, Mazmanian and Sabatier did not indicate why they had used these labels to describe policymakers, implementers and beneficiaries in their framework. It is also unclear, based upon their descriptions, whether policy actors such as non-governmental organisations, the private sector or civil society groups are included in these three perspectives. Moreover, due to their top-down rationale, they used lexicon that assumed a hierarchical relationship in policy processes. Mazmanian and Sabatier (1989: 32–33), for instance, referred to decision-makers as the legislative and executive ‘sovereigns’ or ‘superiors’, and an implementer as a ‘subordinate’ in policymaking.

Based on the aforementioned limitations and implied hierarchy in their language, I do not use Mazmanian and Sabatier’s policy actor labels in my work. Instead, I use a generic list

²⁷ DeLeon (1999: 316) said Mazmanian and Sabatier’s variables were not ‘precise in measurement’, and stated, as examples, that two variables could have simply been titled ‘legislation clarity’ or ‘administrative skill level’.

of key policy actors gleaned from implementation literature based upon an individual's purported purpose in policy processes as the policymaker (i.e. an agenda-setter, formulator or decision-maker); the implementer; the beneficiary (recipient); the evaluator; and the regulator (enforcer). The criteria I will consider when distinguishing between an actor's rationale and role in South African sanitation policymaking are their aims; the measures they undertake to achieve their objectives; and the manner in which they evaluate the policy process.

Lastly, I had one minor concern with Mazmanian and Sabatier's treatment of 'statute' as a synonym for 'policy' in their text. A statute is a law that can derive from legislative, executive or judicial orders, as opposed to a policy that gives direction when addressing a problem. The authors' interchange suggests a functional usage of both terms, whereby implementation tends to follow either statutes or policies. I prefer the latter in this thesis because most of the official decisions I cite were policies that were established either by national or local government. Table 3 summarises my analytical framework that is inspired by Mazmanian and Sabatier's work.

2.4 Summary

Policy implementation studies, a distinct component of the policy cycle framework, guided my data analysis. I chose implementation studies to frame my study because it complements and challenges the South African state's prevailing top-down policy cycle rationale. I presented the development of implementation studies over the past forty-five years, as well as its key limitations and assumptions, in this chapter. I closed the chapter with a description of how I modified Mazmanian and Sabatier's (1989) implementation variables framework to suit my study. The next chapter will describe how I complemented an implementation analytical framing with an ethnographic case study method.

Table 3: Mazmanian and Sabatier’s 21-variable implementation framework (left) and my adaptation (right). The sets of factors (headings) for both lists are in bold text. Some variables’ specific criteria in my adaptation are listed as numbered-sub-headings.

Mazmanian & Sabatier	My adaptation
Tractability of the problem	Policy target
1. Diversity of target group behavior	1. Problem identification
2. Target group as a percentage of the population	2. Targeted changes
3. Extent of behavioral change required	3. Actor specification
4. Technical difficulties	4. Technical aspects
Ability of statute to structure implementation & Nonstatutory variables affecting implementation	Policy-implementation process
5. Incorporation of adequate causal theory	5. Valid assumptions
6. Clear & consistent objectives	6. Clear objectives
7. Initial allocation of financial resources	7. Financial allotment
8. Commitment & leadership skill of implementing officials	8. Implementers’ capability
9. Decision rules of implementing agencies	9. Extent of (de)centralisation
10. Formal access by outsiders	9.1. Decision-making
11. Hierarchical integration within & among implementing institutions	9.2. Participatory processes
	9.3. Veto & clearance points
12. Recruitment of implementing officials	10. Political support
13. Support from sovereigns	10.1. Public officials
14. Public support	10.2. General public
15. Attitudes & resources of constituency groups	10.3. Constituency groups
16. Socioeconomic conditions & technology	11. Situational influences
	11.1 Socioeconomic conditions
	11.2. Technical feasibility
Stages (Dependent variables) in the implementation process	Policy evaluation
17. Policy outputs of implementing agencies	12. Actors’ synergy
18. Compliance with policy outputs by target groups	12.1. Perspective & expectations
	12.2. Roles & behaviours
19. Perceived impacts of policy outputs	13. Policy outcomes
20. Actual impacts of policy outputs	13.1. Perceived
	13.2. Actual
21. Major revision in statute	14. Policy revision/culmination

3. Study design & methods

I present in this chapter an explanation of the ethnographic case study approach I adopted to depict various perspectives in sanitation policymaking and implementation; the variety of methods I used; the ethical principles that guided my investigation and the personal concerns I overcame when undertaking my field research.

3.1 Ethnographic case study approach

According to Public Administration Professor David McNabb (2008: 280), ethnography and case study are two of the most common qualitative research approaches in the public administration field. The former is a mode of inquiry developed by anthropologists to depict cultural beliefs and practises from the eye of the beholder, as well as gain insights into individual or social constructions in particular contexts (Clifford, 1988; Jupp, 2006; O'reilly, 2005; Van Donge, 2006). Proponents of ethnography say there are often discrepancies between the way people present themselves and the way they behave. Due to this difference, anthropologists developed a technique called participant observation to corroborate people's actions with self-reported data. A participant observer is to partake in their research subjects' activities on a day-to-day basis as an insider, and objectively reflect upon social patterns and theories that may emerge as an outsider. An astute participant observer, Bernard (1995) noted, behaves in a way which allows their subjects to act as if the researcher is not present. Ball and Ormerod (2000: 4) further explained that a participant observer in classical ethnography should be:

- Situated in the everyday context of their subjects for a long period of time, so that they are immersed in the culture they are studying;
- Unconstrained by pre-determined goals, theories or methods during data collection²⁸, for the purpose of being open to experiences that might not be relevant to their initial scope of inquiry; and

²⁸ As noted in the previous chapter, I apply an implementation studies framing to make sense of the data presented in this thesis. My data collection was not constrained by this analytical framing because I selected and applied the conceptual framework after I had gathered my data. It is important to note that the selection of a framework to make sense of datasets after data collection is common in qualitative research. Additionally, my selection and application of a conceptual framework after data collection did not affect data analysis, as the aforesaid variable modifications corresponded with my data.

- Conscious and reflexive about how personal judgments and experiences might affect subjectivity during data collection and analysis when considering their subject's view.

Being open-minded and self-reflexive are significant characteristics of participant observers, for ethnography is a form of storytelling in which a narrative generally unfolds around a researcher and the experiences that they had with their subjects. Knowledge gained through ethnographic means is thus frequently described as a co-production between an ethnographer and their subjects (Bank and Bank, 2013; Nyamnjoh, 2012). Participant observers, however, are often criticised for this intimate style of research—with many critics questioning how ethnographers can objectively make sense of social phenomenon as detached researchers. Hegelund (2005: 647) refuted this critique by arguing that objectivity is 'relative to a given perspective'. LeCompte (1987), moreover, remarked that individuals (and their methods) are never devoid of bias as all perspectives and experiences are affected by personal histories and prior instruction. Given such bias, Mead (as cited by Spindler, 1984: 6), fittingly suggested that ethnographers consider the following when deciphering influences on individual perspectives:

look at who does it, where they come from, how they're trained, how they're selected, what their history is, what their value system is, and then what happens to them in the community.

Ethnographers generally record participant observation data in field notes (see Appendix A) that provide 'thick description', 'great depth' and 'detailed complexity' about a study topic (McNabb, 2008: 316). While participant observation is the primary data-gathering technique used in ethnography, ethnographers also cross-reference their data with information gained from a 'cocktail of methodologies' that range from document review to photographic representations (Ball and Ormerod, 2000; Hobbs, 2006: 106). For instance, in a study on hygiene practises in rural South African households, Van den Berg and Slabbert (2012) asked that their research subjects film their daily water-use habits. After reviewing the video recordings, Van den Berg and Slabbert realised that some interviewees did not wash their hands after visiting the toilet as they had claimed. In this situation interviewees may have fabricated their accounts to reflect what they thought they should say, which is a common problem encountered in qualitative studies that are premised on self-reported data. Another problem with self-reported data is when researchers collect conflicting information.

Goldberg et al. (2009: 15), for example, noted that her research team's reliance on interview data in a study on un-sewered South African sanitation services resulted in the collection of 'contradictory information to written sources or to responses from other interviewees'. These valuable insights about non-representative or inconsistent self-reported data illustrate why ethnographers generally use a myriad of data sources to substantiate or make sense of contradictory data in their studies.

Given the intense nature of ethnographic research, ethnography is generally presented in the form of a case study. A case study is

an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, program or system in a "real life" context (Simon, 2009: 21, as cited by Thomas, 2011: 512).

Stein (1952: xxvii, as cited by McNabb, 2008: 287) specially noted that in the public administration field, case studies narrate

the events that constitute or lead to a decision or group of related decisions by a public administrator or group of public administrators.

Stake (1995: 236) remarked that case study is defined 'not by the methods of inquiry used' but the researcher's interest in the 'object to be studied'. Yin (2003b: 6, 1) further elaborated that researchers in explanatory case studies use a combination of documentary, observational and interview data to answer 'how' and 'why' questions that 'explore', 'describe' or 'explain' a person, group or phenomenon. The benefits of a case study approach, Yin (2003a: 69) asserted, are that researchers can discern social patterns over time and 'suggest clues to possible cause-and-effect relationships'. And, whilst not offering the same kind of demographic insights generated from representative surveys, Abercrombie et al. (1984, as cited by Flyvbjerg, 2006: 220) purported that a case study is 'useful in the preliminary stages of an investigation' because it can reveal the hypotheses to be tested or indicators to be used in subsequent statistically rigorous surveys. Yin (2003b) added that case studies are a useful means of describing specific socio-political contexts that may be too complex for surveys—such as the motivations that drive decision-making.

Critics of the case study method, however, have expressed concerns with the 'myriad of different interpretations' in case analyses (Hyett et al., 2014: 12) and generalising human behaviour from singular events (Yin, 2003b, 2011). In response to the first criticism, Stake (1995: 245) explained that case studies are meant to capture the complexity of a 'unique,

specific, bounded system’—which sometimes includes multiple rationalisations of a phenomenon from different perspectives. With regard to the second concern, Stake (1995: 245) noted that the purpose of a case study is ‘not to represent the world, but to represent the case’. Naidoo (2013: 391), for instance, stated that his South African job creation programme case study generated ‘rich insights into inter-departmental coordination problems’ at the local, provincial and national levels of government; but he did not claim that his findings were ‘representative of and generalisable to all public-sector development programmes’. Yin (2011: 19, 18), however, did note that generalisations from case studies can be made if there is a theoretical framework that establishes a logic that is ‘applicable’ in other situations²⁹.

I adopted an ethnographic case study approach to gain a nuanced and in-depth understanding of how different actors personally manage the political, legal, social³⁰, institutional³¹ and technical³² aspects of sanitation design and delivery for two informal settlements. I elected to present my research on policy actors’ similar and conflicting rationales as ethnographic case studies because:

- The ‘detailed descriptions’ from ethnography can specially ‘produce powerful narratives that provide deep insight into the needs of society’ and ‘provide deep background information for the formation of long-term, strategic public policy’ (McNabb, 2008: 316). The World Bank (2015: 145) also recently highlighted in its annual *World Development Report* that ethnography is ‘a powerful tool for understanding the ways in which social and cultural context shapes decision making, choices, and interpersonal relations’.
- Case studies are the most popular form of disseminating public sector knowledge about ‘managerial and administrative experiences from agencies, locations, and levels of government around the globe’ (McNabb, 2008: 287). My thesis, in particular, follows the policy implementation case tradition inspired by Michael Lipsky’s (2010) monograph about the influence of street-level bureaucracy in the policy process.

²⁹ For example, Yin (2011: 18) stated that one of political science’s most influential works is a case study on the 1962 Cuban missile crisis (Allison and Zelikow, 1999; Allison, 1971) in which the authors theorised about the ‘likely responses of national governments when involved in super-power confrontation and international crises’, instead of hypothesising about the relationship between the United States and Cuba.

³⁰ ‘Social’ concerns interpersonal relationships and norms associated with people’s practises and perceptions.

³¹ ‘Institutional’ refers to official systems and processes employed by public sector administrations.

³² ‘Technical’ primarily relates to the application of science, but it can also infer expert knowledge in any field.

As in most ethnographic case studies, the personal experiences I have been a part of and the conversations I have had as a participant observer form the backbone of this thesis. Participant observation (see Section 3.3.2) was the primary technique I used to understand two key sanitation actors' rationales in unique circumstances and observe their practises in two case studies. And as typical of explanatory case studies (Yin, 2003b: 6, 1), I combine my participation observation data with further documentary (see Section 3.3.1), observational (see Sections 3.3.4, 3.3.5 and 3.3.6) and interview data (see Sections 3.3.3 and 3.3.7) to further 'explore' or 'explain' sanitation realities in South Africa from other viewpoints. I especially focus upon stories about informal settlement design and provision from the perspectives of those responsible for maintaining shared toilets in informal settlements to introduce a human dimension of 'lived reality' that is often lacking in present sanitation policies (SAHRC, 2014b: 68; Taing et al., 2014). Stake (1995: 245) additionally remarked that such evocative stories are significant in policymaking because 'vicarious experience' is often the 'basis for refining action options and expectations'. For example, prominent South African politician Ronnie Kasrils (2000: 1) incited government and public support for the *Free Basic Services Policy* (see Section 4.7) after relaying the personal misfortunes of women in a 'typical South African rural village' who could not afford to pay for highly-subsidised water. Using vignettes in my critique hence follows national precedents whereby deeply personal narratives added a human element to policy design. The next section details the selection of the institutions and individuals featured in my case studies.

3.2 Case study selection

The material presented in this thesis was drawn from two Water Research Commission³³ (WRC) studies on sanitation services for densely populated informal settlements located in the Western Cape municipalities of the City of Cape Town (CoCT) and Overstrand. The WRC awarded two research contracts (K5/1827 and K5/2120) to the Urban Water Management Research Unit (UWMRU) at the University of Cape Town (UCT). UWMRU is an interdisciplinary research group that was formed to holistically address water sector planning and governance issues in South Africa. I was the lead investigator for the studies and the primary author of the resulting research reports, which I co-authored with a team of social anthropologists and civil engineers. The reports emanating from the contracts were:

³³ The WRC is a government-funded parastatal that supports studies related to water services in South Africa.

- *TIPS for sewerage informal settlements: Technology, Institutions, People and Services* (Taing, Armitage, et al., 2013); and
- *Free basic sanitation in informal settlements: An ethnography of so-called communal toilet use and maintenance* (Taing et al., 2014).

This thesis builds upon the arguments put forward in the aforesaid research reports. The aim of the *TIPS* study was to identify low-cost waterborne alternatives to conventional sewerage for high-density informal settlements. The *TIPS* study was largely informed by ethnographic case study research undertaken with implementing municipal officials who were responsible for servicing these areas. Data from the *TIPS* research showed that minimal attention was paid to on-going operation and maintenance (O&M) in most of the sanitation schemes that were observed. This finding suggested that technology choice is less important than the socio-political processes that underlie and ultimately determine the way that sanitation services are delivered and managed. The intention of the *Free basic sanitation* study was to build upon the findings from the *TIPS* research, by presenting the perspective of residents who use or are employed by the local municipalities to clean communal toilet systems in three informal settlements. The *Free basic sanitation* case studies suggested that local and national policies do not represent the realities of individuals who use or are responsible for maintaining state-subsidised toilets. This finding indicated that sanitation policies should be amended to accommodate on-the-ground needs in informal settlements.

The empirical data gathered for the WRC studies prompted my interest in the role and impact of policymakers on informal settlement sanitation, which became the focus of this thesis. I principally sought to compare the perspectives of policymakers to that of the implementers and users that I had previously focused upon in my WRC research—reflecting especially on whether (and if so, to what extent) nationally-derived policy changed when municipal sanitation services were implemented in informal settlements. The two settlements featured in this thesis are Kosovo and BM Section (Figure 6). I selected these cases because:

- I conducted the bulk of participation observation for these cases in the aforesaid WRC studies from 2010 to 2014. I conducted the intensive research with officials responsible for sanitation provision at the Human Settlements Directorate and the Water and Sanitation: Informal Settlements Unit (WSISU), as well as residents in BM Section. This data is featured in Section 5.3 and throughout Chapter 6.

- The local municipality had implemented³⁴ significant sanitation projects in both settlements when I had conducted the field research.
- The cases covered different stages of sanitation delivery – the City introduced new infrastructure in Kosovo, while it sought to maintain extant facilities in BM Section.

My presentation of the national policymakers' perspective (Chapter 4) is based mostly on a review of policy documents and interviews with key policymakers. I could not conduct participant observation research with these policymakers due to time limitations. I also did not conduct participant observation research with Kosovo residents, though I had interacted with some when I was shadowing municipal officials. I draw upon my co-researcher's work with residents in Kosovo (Beauchair, 2010) to fill this data gap. I also reflect upon the perspectives of municipal contractors and advocates who were involved in sanitation design and delivery for the featured informal settlements during the time I conducted field research.



Figure 6: Google (2014) map of Cape Town in which the study sites are starred. Highlighted with red stars are Kosovo and BM Section informal settlements; with green stars are municipal offices in the city centre and Bellville; and the University of Cape Town with a blue star.

³⁴ I also conducted research in Hout Bay and Barcelona informal settlements, but the municipality did not complete either of these sanitation projects.

I selected data from my case studies to convey key examples of actors and factors that affected sanitation design and provision in Cape Town from 1999 to 2015. I adopted multiple data collection methods, which I outline next.

3.3 Mixed research methods

Like ethnographers who use a ‘cocktail of methodologies’ (Hobbs, 2006: 106), I mixed qualitative and quantitative methods in this study. My approach built upon the aforementioned WRC studies’ mixed method. My utilisation of a range of methods follows what Creswell (2014) described as a ‘multiphase mixed method’. According to Creswell (2014: 293, 44), a researcher simultaneously and/or sequentially uses a variety of techniques in a multiphase mixed method as part of ‘a longitudinal study’ to ‘understand a long-term project goal’. Creswell (2014: 44) said having mixed methods might result in ‘unequal sample sizes’ in different parts or phases of a study. A common concern about sample unbalance in research is potential biases that might arise when interpreting data. In light of unequal datasets or potential biases that could affect my analysis, I carefully reviewed and triangulated data gathered from different sources (Curry and Nunez-Smith, 2015: 175) to reflect the reality of historical events and generate reasonable explanations of policy and on-the-ground motivations. Additionally, regardless of the type of data gathered and the framework I used to understand my material, I tried to interpret and analyse all data according to the context in which it was situated. In total, I cross-referenced data from seven methods in my investigation. What follows is a discussion of these mixed methods.

3.3.1 Document & literature review

To gain an understanding of the South African policy context for informal settlement sanitation services, I conducted a desktop review of government documents concerning the design, implementation and regulation of sanitation for the urban poor from 1994 to 2014. The bulk of this review is presented in Chapter 4 and the first half of Chapter 5. Additionally, featured throughout the case study chapters are references to government documents when relevant to the discussion. I also cited the following texts concerning informal settlement services when pertinent: media statements; print media articles; academic literature; municipal memos and e-mail correspondences with municipal officials, municipal contractors, NGOs and social advocates.

3.3.2 Participant observation

The stories and quotations I share about the day-to-day realities that municipal officials and informal settlement residents face largely emanate from the insight I gained as a participant observer in my respective study sites. I gained this insight by joining my subjects in their everyday routines and establishing a close ‘rapport’ (Guest et al., 2014: 76) with key informants whose opinions are strongly reflected in my thesis. What follows is a description of my participant observation activities with Cape Town municipal officials and residents in BM Section informal settlement.

3.3.2.1 City of Cape Town officials

I was a participant observer in three CoCT offices for approximately nine months during the period of March 2010 to September 2012. That status follows from my having obtained permission to undertake research in and amongst municipal staff for the WRC *TIPS* study (CoCT, 2010a). I worked alongside municipal officials as an intern in the informal settlements units of the Water and Sanitation Department and Human Settlements (Housing) Directorate. I was originally situated in the former department, and used a snowball technique (Jupp, 2006) to migrate from there to two departments in the latter Directorate.

My eight-hour days at municipal offices generally consisted of my shadowing officials with backgrounds in engineering or plumbing in their daily tasks—which included new infrastructure assessments; executive management meetings; and ‘site visits’ to meet with community leaders and monitor on-going projects. As an intern and university partner, I specially supported officials in three departments that were interested in rehabilitating a dysfunctional sanitation system in the informal settlement of Kosovo by taking meeting minutes, preparing internal reports and coordinating an inter-departmental project on their behalf. My immersive experience enabled me to grasp pressures—such as the social dynamics of their everyday office and field-site activities—that compelled or constrained them. I also discerned as a participant observer how personal, departmental and vocational politics could influence decision-making (individual and collective) and actions in informal settlement sanitation design and delivery.

3.3.2.2 Informal settlement residents

I conducted field research in BM Section informal settlement from November 2012 to August 2013. During this ten-month period I shadowed residents who were employed as municipal

janitors at a public ablution block. I occasionally assisted the janitors by sweeping and distributing toilet paper while observing how users of the service interacted with the municipal workers and the facilities prior to and after cleaning.

I also ‘walked about’ the settlement with a research assistant. I hired a 44-year-old male BM resident³⁵ from 29 January 2013 to 31 August 2013 to be my guide and help me contextualise the data I amassed. When walking through the settlement I paid special attention to residents’ practises and the conditions of three other types of sanitation services in BM (one sewerred and two un-sewerred) that the City offered and supported. Lastly, I observed and interacted with municipal janitors of communal toilet facilities—who were interspersed throughout the settlement, and interviewed local residents to understand their sanitation role and responsibilities in the settlement. A sample field note from my research in BM (excluding identifiers such as names) is included as Appendix A.

3.3.3 Interviews

To understand the diverse viewpoints in informal settlement sanitation servicing, I conducted interviews with national policymakers, municipal officials, municipal contractors, informal settlement residents, activists, academics and NGO partners involved in policy design, management and advocacy. I prepared a questionnaire (interview schedule) for my meetings with national policymakers, and an *aide-memoire* (topic guide) for the rest of my interviewees. I used an *aide-memoire* for the latter to let my interviewees speak at length about their ‘unique experiences’ or ‘special stories’ (Stake, 1995: 65), though I occasionally interrupted them when I wanted further information or clarification.

I conducted my interviews in-person because I found personal meetings more productive than telephonic or video interviews. I did not tape my interviews, because most interviewees expressed discomfort with being recorded. I also did not have the time (nor resources) to transcribe these exchanges. I instead took copious notes—preferably on a computer, as I found it easier to capture quotations. The records of my interviews with four former and current national policymakers are included as Appendixes B, C and D; and the *aide-memoire* I used is included as Appendix E. Aside from the national policymakers, I do not refer to my interviewees by name to preserve their anonymity (see Section 3.4.2).

³⁵ My research assistant said he has resided in BM since 1990. He is 15 years older than I am and cared for his wife, three children and a niece. His children, whom I had met at BM’s ablution block, introduced him to me. He explained that he was a security guard who had been unemployed for a year at the time of our meeting. My assistant could read, write and speak in English and Xhosa despite not having matriculated.

3.3.4 Site visits

In addition to my case studies, I occasionally draw upon observations I made of sanitation conditions in other informal settlements during site visits with self-proclaimed informal settlement community leaders; NGO advocates; municipal officials (ranging from project managers, maintenance technicians, engineers and health officials); engineering design consultants; and construction contractors. I visited Hermanus' Zwelihle informal settlement in neighbouring Overstrand Municipality, and the following informal settlements in and around Cape Town: Hangberg and Imazamo Yethu in Hout Bay; Brown's Farm in Phillipi; Pooke se Bos in Rylands; Kanana, Barcelona, Europe, Vuvukunzele and Lusaka in Gugulethu; Witsand in Atlantis; Klipheuwel near Fisantekraal; Valhalla Park near Bishop Lavis; Wag 'n Beitjie near Somerset West; and thirteen other sections in Khayelitsha.

3.3.5 Photography

I photographed some fleeting moments from my participant observation experiences and site visits to help depict sanitation conditions or recall details that I otherwise might forget. Some of these photographs are featured in the thesis to illustrate points I raise in my narrative.

3.3.6 Toilet survey

I assessed the conditions of full-flush toilets in BM Section from 10 to 15 June 2014. My research assistant and I counted the number of toilets present, and noted the conditions of the facilities in a notebook. For example, we checked if top-structures were broken, if a toilet could flush or if it was blocked. A summary of some of this data is featured in Section 6.3.

3.3.7 Cell phone survey

I collaborated with SeeSaw, a Cape Town-based information and communications technology (ICT) social development venture, to test their preferred mobile data collection application (DoForms) as a survey tool. The aims of the collaboration were two-fold: to gather interview data of informal settlement experiences with municipal sanitation services, and test whether DoForms is a user-friendly application for digitally recording data and processing such records remotely. I wrote the research questionnaire and conducted 'walking

interviews' with my research assistant and 21 BM residents³⁶ in July and August 2013. My research assistant and I asked 10 acquaintances living in each section of BM (there are six sections in total) to participate in the survey. The acquaintances were either familiar with my research assistant, or someone I had befriended in the course of my fieldwork. The remaining interviewees were strangers whom we met during our settlement walks. Upon receiving their agreement to participate, I verbally explained: (a) the survey's purpose; (b) that participation was voluntary and unpaid; (c) the interviewees had the right to not answer questions and end the interaction at any time; and (d) their responses were confidential, as I would only disseminate non-identifiable data.

Consenting interviewees thereafter shared demographic characteristics—including age, means of affording food and number of children (if any). They then were asked to show where they regularly defecated, urinated, fetched water and disposed of wastewater, greywater and refuse (solid waste). In general, interviews took about 45 minutes. The cell phone application was designed to record photographs and GIS coordinates of locations, and record audio responses of the respective interviewee's impressions of sanitation services in BM Section. The recorded data was exported digitally in real time via a 3G connection to a remote server, which I later downloaded from the DoForms website. The data was stored on my personal computer, which is secured with a password and used only by me.

The survey questions I asked are included as Appendix F and the data from the survey featured in Section 6.3. Personal information (such as names and GIS coordinates of homes) was removed, to protect the interviewees' anonymity (see Section 3.4.2). My notes about the technical aspects of the application are featured in Appendix G, and a table that summarises the survey data is included in Appendix H.

3.4 Ethical & personal considerations

I received ethical approval from UCT to conduct my research, and followed the Faculty of Humanities' (2006) guideline when conducting my fieldwork. Major points from the ethics guideline with regard to managing my relationships with research subjects were:

- Gaining informed consent from all those involved and being careful not to intrude in my subjects' professional and personal space;

³⁶ I recognise that this sample provides an indication of the sanitation practises in the informal settlement, and is not representative of BM's whole population.

- Representing their views to the best of my ability as an impartial observer and avoiding anything that might potentially cause harm to my subjects, whether during research activities or when disseminating my findings; and
- Clarifying that I would only use study data for my thesis and research publications.

3.4.1 Informed consent

Given the ethnographic nature of my research, it was not feasible to secure written consent from the large sample of people I met. Though I did initially prepare a consent form that outlined my research at the behest of a municipal official (Appendix I), I eventually treated this document as an information sheet that introduced my study aims and corroborated my association with a local university. In lieu of written consent, I generally secured verbal consent from participants who were made aware of my identity and study aims either through a mutual acquaintance's introduction or a brief explanation from me. I also distributed business cards to new or wary research participants to identify myself as a UCT researcher and specified that I could be asked to leave at any time. I did not push anyone to participate in my study if they did not invite me or readily accept my request to observe their day-to-day tasks. For example, some municipal officials asked that I join their teams and assist their projects, whilst others put off my requests by saying they were too busy for me to join them. In the latter situations I simply stayed away. Some participants also spoke Afrikaans³⁷ or Xhosa³⁸ in my presence, which allowed them to subtly exclude me from a conversation without requiring me to physically leave.

My research was conducted openly with my identity made known to everyone. The openness of my research objective did influence how people represented themselves in my presence. For example, individuals sometimes acted according to how they thought they should act, or told me what they thought I wanted to hear. To counter these problems I repeatedly engaged with my research participants, to gain their trust so that they could be themselves around me. I also observed how they behaved and what they said in different situations, and considered, in hindsight, whether there were contradictions between their actions and expressed ideas. Like most participant observers, I identified inconsistencies

³⁷Afrikaans is a Southern African language spoken primarily in South Africa and Namibia. It derives from Dutch and borrows words from the Khoisan, Malay, Portuguese and Bantu languages.

³⁸Xhosa is a South African language. It is a part of the Nguni Bantu language group.

between people's actions and self-reported data. I present these contradictions and discuss the likely contextual reasons for these inconsistencies in my case studies.

3.4.2 Participants' anonymity & trust

I offer contextual information when describing research subjects to situate individuals and do not use personal identifiers (such as a person's name, professional titles or geographic references like physical addresses) in this thesis. This is done to protect my subjects' anonymity. For example, I might refer to someone as a 'young male BM resident' or a 'middle-aged female janitor working in BM'. When referring to government officials I cite their functional role—such as their being a project manager or a senior-level policymaker responsible for service delivery. I explained to my research subjects that I would not:

- Disseminate data with their names or contact details to maintain their anonymity;
- Divulge unpublished data with identifiers, because the release of such could have repercussions if taken out of context; and
- Use given names in the case studies—even if someone gave consent to be identified, for purposes of consistency and to protect others with whom they might be associated.

I also found that my analysis of research subjects' positions, biases, affiliations, expectations and justifications made many wary of interacting with me because they believed I would criticise them. I therefore repeatedly reiterated that my research is not intended as an appraisal of anyone's work performance, or a critique of anyone's perspective; rather, my work is to show the link between people and outcomes. I also asked that key informants validate that I accurately represented their views before disseminating my research findings and analyses. In particular, I asked them to confirm that I did not take any quotations or descriptions of their experiences out of context.

Due to my conducting research with government officials, residents and social advocates, some subjects did occasionally ask me to provide information that they did not have access to. For example, residents employed as janitors in BM Section and civil advocates frequently asked about the communications I had with municipal officials regarding an informal settlement janitorial program. In these situations, I: (a) stated that I could not ethically disseminate unpublished data because I needed to protect the safety of my research participants; (b) reminded the solicitors that I was not and could not be an informant

for them; and (c) suggested that they pose their questions to their municipal manager or contact. Most people accepted my response, and would not pursue their line of questioning. I restricted contact with those who continually pressured me to share data, which consequentially meant I had less access to these subjects than had previously been the case.

As part of an interdisciplinary research team, I also was expected to share my data with my colleagues because we had overlapping research interests. My co-researchers and I removed identifiers when sharing files to prevent identity disclosure, though this did sometimes result in the loss of contextual information.

3.4.3 Personal safety

I did not have any security incidents over four and half years of intermittent research in informal settlements because a trusted companion—such as a city official, local resident or NGO advocate—always accompanied me. Neighbourhood children in BM Section also joined me when I made personal house calls after concluding my fieldwork for the day. As further preventative measures, I did not wear provocative clothing or jewellery, and I did not use valuable electronic devices when conducting fieldwork.

3.5 Summary

This thesis follows in the tradition of ethnographic case studies, in which social groups are studied in-depth, and individual narratives are interwoven to reveal the socio-political processes and personal motivations that underlie sanitation design and provision in two informal settlements. It admittedly was difficult at first to separate certainty from hyperbole and make sense of seemingly disparate information. Using an ethnographic lens that drew from different data sources helped me to eventually understand various actors' outlooks and attitudes about municipal informal settlement services and contextualise overstated accounts. In particular, I spotted details and connections that other analysts have previously missed when evaluating nationally derived sanitation policies due to my first-hand knowledge of troubles experienced by municipal officials and informal settlement residents. I next present a policy review and the data I gathered from my investigation. Intertwined are citations of international and national discourse as relevant to the narrative.

4. Policy review: Past wrongs, present problems

The history of sanitation development in South Africa is bound up with the history of all other aspects of equity, land, development and the economy (DWAF, 1994: 33).

The purpose of this chapter is to describe the rationales underpinning the design of sanitation services for the urban poor in national policy, legislation and regulations during South Africa's first decade of democracy. To draw attention to the influence of history in contemporary discourse, I trace present-day rights-based principles to the unjust policies of past governments. Unbeknownst to many South Africans, the development of urban sanitation has had a long history of racist undertones, which has influenced the nature of modern infrastructure and policies. I focus especially on two social welfare campaigns that motivated collective prejudice and divided colonial Cape Town socially and spatially. With regard to modern sanitation policy, I chiefly reference the: *White Papers*³⁹ and strategies written by the Department of Water Affairs and Forestry (DWAF) from 1994 to 2003; and articles written by DWAF's former Minister⁴⁰ and Director-General⁴¹. I focus on DWAF because it was the national sanitation custodian⁴² from 1994 to 2009, and the municipal officials I worked with used its standards as guides (CoCT, 2001b, 2008, 2009c).

4.1 Colonial & apartheid policies (1875–1993)

Concerns about the provision, collection and safe disposal of domestic waste (human faeces, urine, greywater and refuse) has been the basis for municipal reform in Cape Town since 1875 (Miraftab, 2012: 7). Historian Vivian Bickford-Smith (2003: 38) credited 'English reformers' for the installation of Cape Town's first underground sewers in the late nineteenth century. Prior to sewerage, domestic waste from the burgeoning city drained into the sea via *grachts* (canals) that were built by Dutch settlers in the seventeenth and eighteenth centuries (Maki, 2008; Murray, n.d.). Many local residents considered the *grachts* 'unsightly' and

³⁹ A position document that contains background information and expert opinions about resolving a specific problem. It is disseminated to obtain comments from the public and guide legislators in the formulation of laws and policymakers in the design of strategies.

⁴⁰ A Minister in South African government is a member of the President's Cabinet and the senior political representative of a national public administration.

⁴¹ A national administration's chief executive officer who is generally viewed as the Minister's technical counterpart.

⁴² A custodian in has overarching responsibility for policymaking and administration in a sector.

inadequate for draining the city—especially of its night soil⁴³—by the 1800s (Brown and Magoba, 2009: 67). The English merchants were especially worried that the lack of underground drains would threaten their business interests in the city centre, which was then the financial hub of Cape Town and a residential area for local labourers. The merchants subsequently insisted that the local municipality replace its antiquated canals with modern sewers similar to those being built in England—all in the explicated interests of protecting the health of those who worked in and visited the ‘city of stinks’ (Miraftab, 2007: 57).

The Afrikaners⁴⁴ that controlled local government from the 1860s to early 1880s, however, favoured the status quo because installing sewerage meant raising taxes that they (as property owners in the city centre⁴⁵) would primarily bear. Unhappy with their response, the English merchants concluded that they would have to wrestle power from the Afrikaner property owners in order to transform Cape Town’s sanitation system. The English merchants hence sought to unseat their Afrikaner rivals in the 1882 local elections by using a propaganda campaign that portrayed themselves as respectable and honourable people who were interested in ‘intelligently’ developing a modern Cape Town (Bickford-Smith, 2003: 57). They depicted their rivals, in sharp contrast, as a ‘Dirty Party’⁴⁶ in both practises and morals (Figure 7). The merchants’ smear campaign even extended to the Afrikaners’ supporters. While ‘Africans’ or ‘black natives’ could not vote in the Cape Colony⁴⁷, Cape Malays⁴⁸ could. The English merchants had appealed to this electorate, but the majority of Cape Malay voters opposed the installation of sewerage because they feared that their rents would rise should their landlords’ property rates increase. The English reformers consequently portrayed them, too, as ‘dirty’ and ‘obstructionist’ (Bickford-Smith, 2003: 50).

The ‘Clean Party’ eventually won the 1882 local elections. Bickford-Smith (2003: 50) highlighted the significance of sanitation in the English reformers’ win, as it showed how they had effectively mixed British imperialism with a sanitation metaphor to overcome an opposing rationality. This collective prejudice subsequently transformed the way that Cape

⁴³ A euphemism for human waste that is collected in a pail.

⁴⁴ The descendants of seventeenth and eighteenth century Dutch and Huguenot settlers.

⁴⁵ The English reformers would not have paid increased rates in Cape Town because they principally lived in neighbouring municipalities that had distinct governments and sanitation systems (Bickford-Smith, 2003).

⁴⁶ Bickford-Smith (2003: 48) credited journalists from *The Cape Times* and *The Cape Argus* for applying epithets that alluded to ‘dirtiness’ and ‘cleanliness’ in the 1882 election.

⁴⁷ The Cape Colony was established in 1652 when merchants from the Dutch East India Company first settled in Cape Town. Worden (2012: 11) referred to this period as the ‘beginning of South Africa’.

⁴⁸ The descendants of slaves and political exiles from the Netherland’s Southeast Asian colonies.

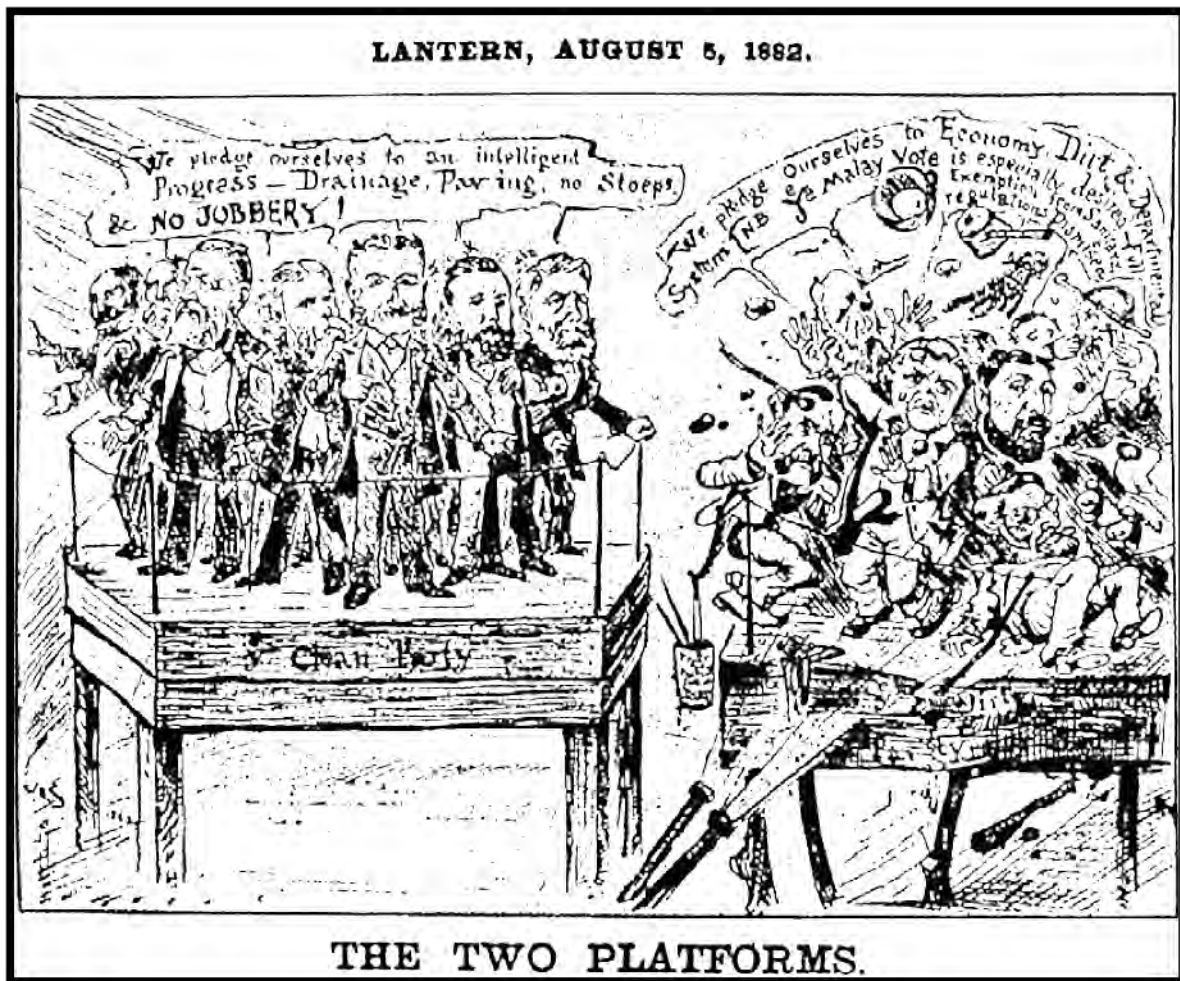


Figure 7: A *Lantern* magazine cartoon depicted the Clean and Dirty parties during the 1882 local elections (Bickford-Smith, 2003: 57). The speech bubble for the English reformers, represented on the left as the Clean Party, said: ‘We pledge ourselves to an intelligent Progress—Drainage, Paving, no Stoeps, & NO JOBBERY’. The text on the right, depicting Afrikaner landowners as the Dirty Party, said: ‘We pledge ourselves to Economy, Dirt & Departmental System (NB: Ye Malay Vote is desired—full exemption from sanitary regulations promised.)’

Town’s sanitation services were to be designed and provided, and illustrated the potency of labelling a social group as dirty and unsanitary when driving infrastructure development.

Sanitation was also used in the Cape Colony as a pretext to socially and spatially divide ‘non-white’ and ‘white’ South Africans. According to Historian Maynard Swanson, the prevailing health theory in colonial Cape Town was that natives caused deadly epidemics. Swanson (1977: 397) called this racist supposition the ‘sanitation syndrome’, in reference to its alleged ‘medical’ underpinnings. Although there was a minority that linked unsanitary

conditions to the absence of public infrastructure⁴⁹, this ‘scientific’ belief of disease contagion from esteemed doctors eventually fuelled ‘the desire of bourgeois Whites to be protected from ‘dirty’ Blacks’ through means of residential segregation (Bickford-Smith, 2003: 105, 102). What was unclear, however, in the 1880s, was whether employers or the government should pay for spatial segregation in the interest of ‘public health’ (Bickford-Smith, 2003: 103).

Ultimately, deadly epidemics at the beginning of the twentieth century prompted the municipality to accept responsibility for mass relocations of non-white populations to the urban periphery. An early example of a forced relocation was the removal of black labourers from their port-side homes to present-day Ndabeni after a bubonic plague outbreak in 1901 (Swanson, 1977). Swanson (1977: 410) stated that the colonial sanitation syndrome

equat[ed] black urban settlement, labour and living conditions with threats to public health and security, [which] became fixed in the official mind, buttressed a desire to achieve positive social controls, and rationalized white race prejudice with a popular imagery of medical menace.

That is, medical doctors and municipal officials justified forced racial segregation in the Cape Colony with ideas of social contamination in the interest of protecting the white population. Philips (2012: 10), in his social history of deadly disease outbreaks in South Africa, noticed that epidemics commonly ‘accentuate many features and beliefs present in society’ and ‘accelerate processes already under way therein’. The Ndabeni relocation, for instance, reflected how extant sanitation prejudices advanced the development of racist colonial policy and practises. Sanitation stereotypes in neighbouring South African colonies similarly resulted in the design of public policy and infrastructure that entrenched privilege along racial lines (Maki, 2008; Parnell, 1991, 1993). These colonial land planning practises eventually informed the ‘racial zoning’ (Mabin and Smit, 1997; Maylam, 2009) and ‘ethnic engineering’ (Mabin, 1990: 8) policies enacted by the Union of South Africa after 1910 (Figure 8). Miraftab (2012: 9) further noted that this ‘toxic relationship’ between ‘stereotype, sanitation and segregation’ in colonial South Africa ‘held the seeds of full apartheid’.

⁴⁹ In 1857, the Cape Colony Town Engineer attributed the unsanitary living conditions of poor non-white labourers near present-day Strand Street to ‘the present state of drainage’, which was then non-existent: ‘A working man with perhaps three or four shillings a day, has to pay... twenty or thirty shillings a month for rent... and to support his family out of the remainder. He has to carry all his water... from a distance of three or four hundred yards, and, under these circumstances you can hardly expect that his place will be kept perfectly clean; but where sober, honest people live, their places are kept as well as I should expect such people to keep them, under the existing system of drainage’ (Cape Colony Paper SC7-1857: 11, as cited in Maki, 2008: 205).

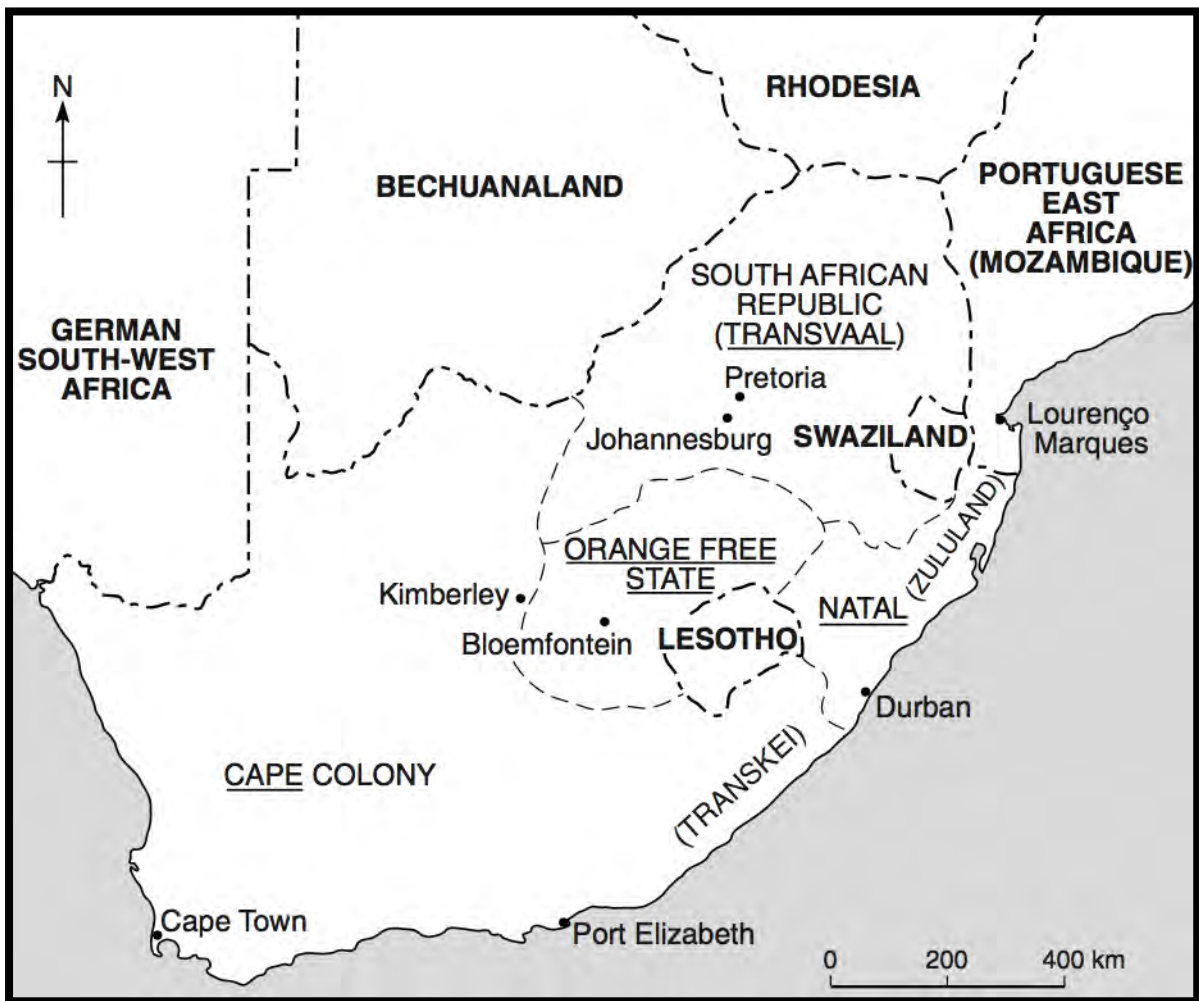


Figure 8: In 1910, the Cape, Orange Free State, Transvaal and Natal colonies (which are underlined in the map) united to form the Union of South Africa. The Union remained a British-administered territory for five decades, and became an independent country (republic) in 1961. Worden (2012: 37) adapted this map from Shillington (1987). Cape Town is located in the bottom-left corner.

Meaning apartness in Afrikaans, apartheid was a legal system of racial segregation that was instituted in South Africa from 1948 to 1994. The primary objective of apartheid was to divide the country into ‘white and black homelands’ (Muller, 1963: 61). In support of its separate development agenda, apartheid officials categorised people as whites, coloureds (mixed race), blacks and Indians (Asians); and forced millions of ‘non-whites’ onto remote rural or underdeveloped urban lands from the 1950s to the late 1980s (Figure 9).

Like the preceding regime, the apartheid government’s racism shaped social and spatial policies by stripping marginalised populations of their civic liberties. To oppose the apartheid, the international community placed strict embargoes on trade with South Africa

which slowed the economy from the 1960s (UN, 2013), and civil activists staged protests against the government's separatist agenda (Beinart and Dubow, 1995; Buntman, 2003; Cottrell, 2007; Worden, 2012). The pressure eventually led to the fall of apartheid and the 'establishment of a united, democratic and non-racial South Africa' in 1994 (UN, 1994).

Unfortunately, the democracy's early state of affairs looked bleak. Caused in part by forty-five years of 'destructive and wasteful' apartheid governance, the country was fraught with 'slow growth, severe poverty, and extreme inequalities in living standards, income, and

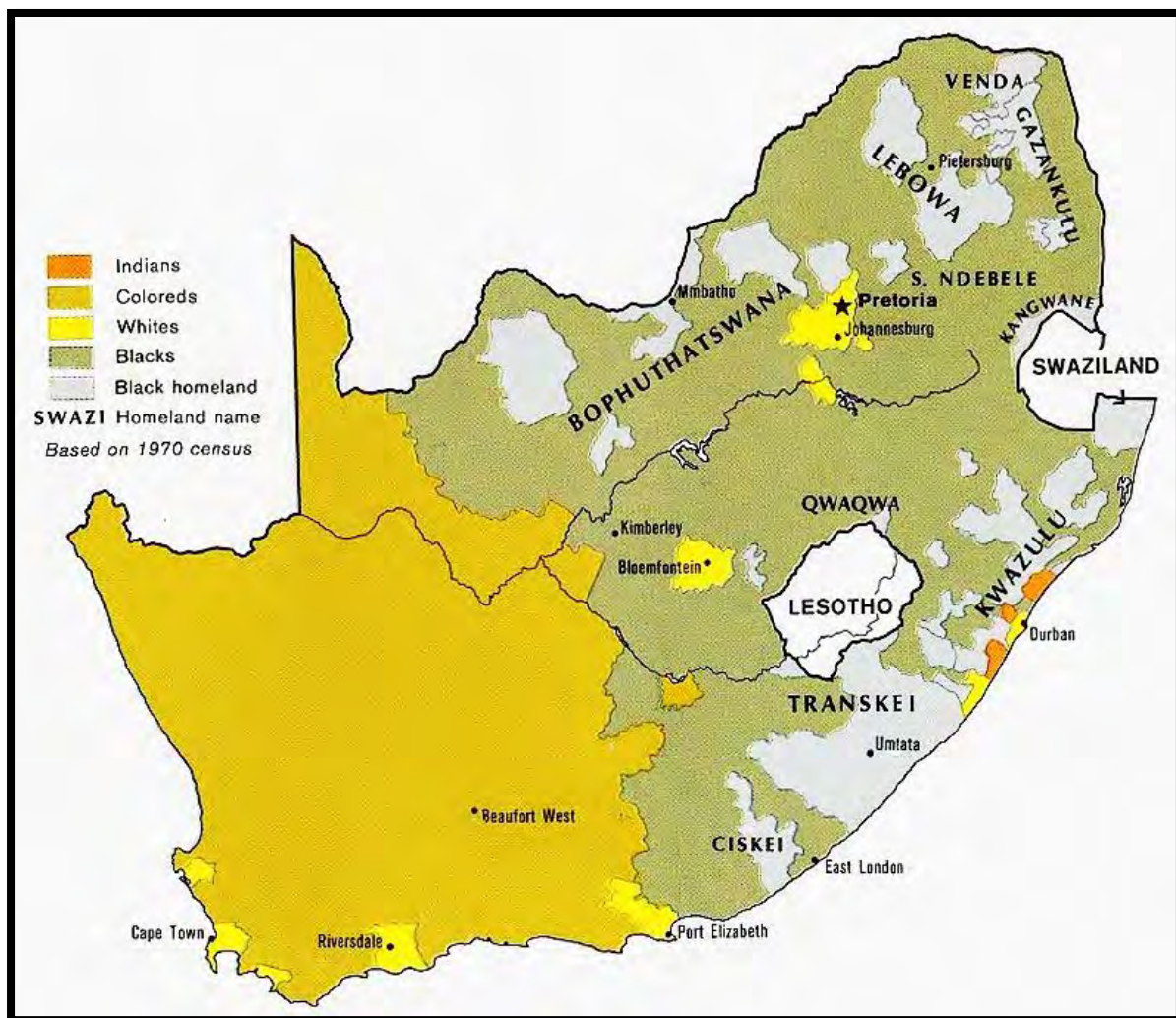


Figure 9: A territorial map of apartheid South Africa created by the United States' Central Intelligence Agency (CIA, 1979) with data from the 1970 census. It shows the areas where four major ethnic groups resided in high concentrations: whites stayed predominantly in cities or towns (indicated on the map in yellow); coloureds in the western part of the country (mustard); blacks in the eastern half of the country (green and grey); and Indians in enclaves near Durban (orange).

opportunity’ (Mandela, 1993: 93). Given this predicament, future President Nelson Mandela recognised the necessity of stimulating the stagnant economy with overseas investments whilst placating his fellow countrymen who were angry about the historic injustices that entrenched public services and socio-economic opportunity along racial lines. Mandela (1993: 93), for example, cited a World Bank study that showed how domestic per capita incomes were ‘heavily inclined toward the white population’ in the early 1990s: income levels for whites were 9.5 times higher than blacks; 4.5 times higher than coloureds and three times higher than Indians. Mandela (1993: 97) accordingly framed the forthcoming government’s commitment to rights-based principles as a means of ‘reintegration’ into the global economy after decades of sanctions, as well as a way of restoring political, social and economic rights to those who were disadvantaged by past wrongs. From 1994 to 2003, policymakers and legislators affirmed these civil liberties—such as the social right to sanitation—in South Africa’s policies and laws. The rest of this chapter delves into the body of discourse that eventually provided for the right to sanitation in urban informal settlements.

4.2 Reconstruction & Development Programme (1994)

After the African National Congress (ANC) became the ruling political party in 1994, it promoted its *Reconstruction and Development Programme (RDP) Policy* as an ‘inclusive approach’ to ‘developing and implementing policy’ and raising living standards according to ‘household preferences’ (RSA, 1994: 5, 47, 32). The *RDP* specially included water and sanitation access as part of a suite of ‘basic needs’ that needed to be urgently addressed (RSA, 1994: 11). DWAF (1994: 2) said water and sanitation was ‘a high priority’ because

the need for urgent action [was] expressed repeatedly at a local level; after jobs and housing, water supply is the issue which South Africans want to see Government address most urgently.

The servicing backlog then was daunting: more than 12 million South Africans needed reliable water supplies, and ‘half’ the population (approximately 21 million people) lacked access to adequate sanitation facilities (DWAF, 1994: 1, 2004a: 4; Stats SA, 1996). The *RDP* outlined the following aims for improving water and sanitation access provide:

- ‘adequate facilities for health’ in the short-term, by delivering a daily communal water supply of 20 to 30 litres per person; and a toilet and refuse removal system ‘per site’;

- ‘on-site’ water supplies and ‘improved’ sanitation and refuse collection systems for all households⁵⁰ in the medium-term; and
- ‘accessible water and sanitation’ in the long-term (RSA, 1994: 33, 34).

These goals suggest that policymakers had regarded ‘adequate sanitation’ as comprising both ‘toilets and refuse removal’ (RSA, 1994: 32), as well as on-site services at each dwelling. The per-household servicing intention tied in with policymakers’ housing aims for the ‘homeless’ (RSA, 1994: 27). In recognition that every South African has a ‘right to housing’, the democratic government said it was ‘ultimately responsible’ for providing housing ‘to all’, and pledged to deliver ‘one million low-cost houses’ for ‘low-income households’ within five years of the *RDP*’s promulgation (RSA, 1994: 27, 26). Policymakers further stated that they would create a ‘policy framework’ and formulate the ‘legislative support’ to achieve the housing objective (RSA, 1994: 27). In particular, legislation concerning ‘the rights of people living in informal settlements’ would be ‘rapidly developed’ to redress the legacy of historical injustices (RSA, 1994: 28).

Aside from the servicing and housing backlogs, the post-apartheid administration amalgamated the state’s ‘fragmented’ water institutions into one national body (RSA, 1994: 117). The preceding regime divided water management between four provinces and ten ‘self governing’ homelands (DWAF, 2004a: 4). The democratic government transferred all water-related responsibilities to DWAF, and mandated that the newly-established custodian build ‘competent’ municipal service providers that would generate income through cross-subsidies (RSA, 1994: 34, 35). The *RDP* stipulated that ‘all consumers should pay’ for what they consume, which meant that municipalities (with DWAF’s support) had to implement a ‘progressive block tariff’ in which the poor paid a ‘lifeline tariff’ that was subsidised, in part, by other ratepayers (RSA, 1994: 129, 34).

Mike Muller (2015: 272), who chaired the national water sector’s primary policy forum during South Africa’s transition to democracy and later led DWAF as its Director-General, said that ‘post-1994 policy was strongly influenced by the *RDP*’, as it was ‘a benchmark that set out the bare bones of policy’ that DWAF later expanded upon. For example, DWAF (1994: 6) acknowledged that the *RDP* underpinned its first *White Paper*, which is discussed next. Given its influence on the custodian’s policies, laws and standards, it

⁵⁰A household is understood as ‘a group of persons who live together, and provide themselves jointly with food and/or other essentials for living, or a single person who lives alone’ (StatsSA, 2011: 13).

is significant to highlight that the *RDP* did not include a servicing policy for informal settlements—for policymakers had planned to house the homeless. The *RDP Policy* therefore tied sanitation provision to the national government’s five-year housing programme.

4.3 Water Supply & Sanitation Policy White Paper (1994)

DWAF (1994: 14, 1) indicated in its *Water Supply and Sanitation Policy White Paper* that it aimed to achieve universal access ‘within seven years or less’ by: devising a programme of ‘Public action... based on a clear policy which is premised on the rights of all people to determine their own future’; and establishing a policy that made basic services ‘affordable’ to both the government and consumers. Informed by the *RDP*, DWAF (1994: 14–15) set the minimum service standards at:

- **‘Basic water supply’**: ‘25 litres per person per day’ from sources that were within 200 metres of a dwelling and had a flow rate of 10 litres per minute; and
- **‘Adequate sanitation’**: A ‘well-constructed’ ventilated improved pit (VIP) latrine⁵¹ ‘per household’.

Unlike the *RDP Policy*, refuse removal was not included in DWAF’s definition of adequate sanitation. The institution does not explain this omission. It nevertheless is significant to note, as it indicates that DWAF limited its scope for sanitation to the containment and conveyance of bodily waste. Aside from this change, DWAF largely built upon the principles, the institutional structure and financing schemes that the *RDP* originally proposed. What follows is a summary of DWAF’s proposed services approach, as well as the key development assumptions that underscored its policy for the urban poor.

4.3.1 Demand driven development & right to services

According to DWAF (1994: 6, 9), the development of public services in democratic South Africa should be a ‘people driven process’ in which demand is

understood as the motivation for development originating from within the community, not from some outside agency (including the State) on behalf of the community.

⁵¹ A VIP latrine comprises of a top-structure that is situated over a hole in the ground and ventilated by a pipe. The pipe has a fly-screen attached to it, to prevent flies from entering the facility. DWAF (2002c: 3) recommended lining the pits when emptying is required.

This understanding of demand driven development ‘derived directly’ from the *RDP Policy*, and was informed by international experience—which had indicated that services to the poor would fail if beneficiaries are not involved in the delivery process (DWAF, 1994: 6). To complement its development approach, DWAF (1994: 8, 20) said it would prioritise basic access to the ‘inadequately served’, because all South Africans are ‘entitled to basic services’. DWAF (1994: 8) interestingly noted that this entitlement might imply the adoption of a ‘supply driven, centralised approach’ to delivery, which would ‘contradict’ the state’s overarching demand driven ethos. DWAF clarified that:

- Its approach reflected the need to give precedence of limited government resources to those most in need. For example, requests for higher levels of service would not be met if some had not yet received basic access, as this might result in inequitable distribution of ‘services at the expense of others’ (DWAF, 1994: 8). In other words, all communities had to have minimum water and sanitation levels before the demands for higher levels of services were considered.
- Its development agenda did not mean ‘that the community simply “demands” services from the Government’, as communities would consequently become ‘disempowered’. Instead of acquiescing to community demands, DWAF (1994: 8, 9) said it would play an enabling role by providing basic services that communities could thereafter improve upon as they desired.

4.3.2 Integrated governance

In its ‘institutional framework’, DWAF (1994: 9, 34, 7) chiefly divided the roles and responsibilities for water services between different levels of government accordingly:

- As ‘Central Government’, DWAF would manage national water resources; ensure universal service access; ‘provide national policy, guidelines and standards’; and regulate and monitor progress;
- Provincial Government would support local government’s development; and
- Local Government would provide services as mandated in the interim *Constitution* (RSA, 1993) and the *RDP Policy* (see Section 4.2), for international experience had indicated that service delivery should be devolved to its lowest level.

The above-mentioned duties suggests that DWAF (1994: 2, 15) chiefly divided the state obligations concerning water services between national and municipal governments, with the former responsible for policymaking and (alongside their provincial counterparts) supporting local authorities that were responsible for ‘implementation and management’ within their jurisdictions. As an example of how the three different tiers of government should interact, DWAF (1994: 20, 26) explained that the national government ‘must lay down guidelines’ and thereafter assist local and provincial governments to ensure ‘that what happens at grass roots level meets the required standard’.

Moreover, DWAF (1994: 8) considered coordination amongst the different sector custodians that undertook complementary work significant. For example, to emphasise ‘the obvious links between sanitation and health’, DWAF (1994: 32, 33) said it would ‘work in close co-operation with the Department of Health’ in formulating a ‘joint strategy’ on sanitation. DWAF (1994: 6) also stressed that water services ‘should be integrated’ into the provision of ‘other basic needs’, which could be achieved through coordinated planning and implementation with the various custodians (‘institutional infrastructure’) concerned with the provision of: ‘physical infrastructure’ such as electricity, roads and communications; ‘social infrastructure’ such as schools and hospitals; and ‘economic infrastructure’ such as commercial industries that offer job opportunities. Lastly, DWAF (1994: 12, 13) noted that the ‘Private Sector and NGOs have a major role in serving the public sectors’ and ‘making the community the client’, in terms of assisting with capital investments, operation and maintenance (O&M) and capacity building.

4.3.3 Cross-subsidised basic services for the poor

The question of who pays, how much, for what and how is one of the most contentious policy issues of all (DWAF, 1994: 17).

As a ‘natural resource’, DWAF (1994: 17) stated that many South Africans considered water ‘to be a “gift from God”—which as such should be free’. The national custodian argued against this tenet by noting water’s ‘economic value’⁵² as a scarce resource, and—given its high abstraction, treatment and conveyance costs—it should be ‘paid for in a manner which

⁵² This statement stems from the ‘Water has an economic value’ pillar of integrated water resources management, which is an internationally recognised framework for dealing with ‘competing uses’ of water in an equitable manner (Rogers and Hall, 2003; UN, 1992).

does not require ongoing Government funds' to sustain provision (DWAF, 1994: 8, 17). DWAF (1994: 17) broke down the costs of water services accordingly:

- 'Capital costs' for constructing water schemes, which included protecting water sources and building pump stations, reticulation networks and treatment plants;
- O&M or 'recurrent costs' for operation crews, equipment to fix or upkeep infrastructure, spare parts and chemicals for treatment; and
- 'Replacement costs' for infrastructure that 'reaches the end of its useful life'.

DWAF (1994: 8, 14, 18) established basic standards upon what it considered to be 'the minimum needed to ensure health', and stated that the national government would subsidise these basic services for the poor. DWAF (1994: 18), however, clarified that the government would only 'subsidise the cost of construction' for basic services, and that consumers were responsible for paying the corresponding operating costs. Such a division of financial duties reflects the rationale that South Africans 'must all play our part' with regard to sustaining government services—with the state ensuring that supply schemes are 'properly planned', and consumers ensuring 'that there are enough funds for those who have no water supply' by paying their rates (DWAF, 1994: 1). DWAF (1994: 1, 23) moreover recognised that some might 'desire and demand the convenience and comfort which higher levels of sanitation service can provide', but required that costs for services beyond its minimum standard 'be fully paid for by the individual or community'. Put simply, the government was only accountable for provision of the basic minimum of service, a standard that the state itself had set. DWAF (1994: 3, 15) notably did not define what constituted a 'higher' form of service in this document, though it did state that 'internal household water or yard taps' were 'a realistic long term goal', and that universal waterborne sewerage was unrealistic and unviable 'in the short term due to its cost'.

With regard to rates schedules, DWAF (1994: 22) endorsed a sliding tariff policy in which a 'life-line or social tariff' for the poor (i.e. the per person O&M cost of '25 litres per capita per day') would be borne by other consumers. DWAF stated that it would not set a 'uniform tariff rate', advising instead that local governments set their own 'with the full participation of all interested parties'. In brief, DWAF (1994: 22) set a sliding tariff guideline as 'the standard for all Government assisted or subsidised schemes', which required that all citizens contribute towards service provision costs.

4.3.4 Urban township services

DWAF (1994: 20) explicitly stated that those residing in rural and peri-urban areas ‘are entitled to basic services as are any other citizens’. With regard to basic services in urban areas, DWAF only focused on servicing residents of townships. Post-apartheid legislation defined a township as either ‘a group of pieces of land, or of subdivisions of a piece of land’ designated for residences, commerce or industry (RSA, 1997b: 6). The current government’s understanding of township does not have a racial connotation. Apartheid officials, however, used the term to describe peri-urban areas that were to specifically house non-white households ‘beyond the town or city limits’, while ‘the white population resided in suburbs’ adjacent to towns or cities (StatsSA, 2011: 20).

DWAF neither explained the type of water services that were available in townships in the past, nor did it recommend the types of services that municipalities should provide to townships. The following breakdown of DWAF’s (1994: 18, 19) capital costs for reticulation services in urban areas, however, indicated that the national government municipalities to provide townships with waterborne services:

- The internal services cost that are within the boundaries of a property would be funded by a state housing subsidy; and
- The external costs for the ‘connector, bulk and treatment services’ would be the municipality’s responsibilities.

DWAF’s outlined costs for marginal urban areas seem to suggest that, despite setting the standard for minimum basic services at un-sewered VIP latrines, the national government had expected that those living on private properties in townships would have access to a sewerer household toilet. Additionally, in spite of acknowledging the existence of ‘squatter’ or ‘dense settlements’ in the ‘urban fringe’, DWAF (1994: 32, 25) did not explicitly provide servicing policy for informal settlements in its first *White Paper*. Such an oversight was likely due to the *RDP* goal of providing every low-income household with a free dwelling.

Aside from offering local governments financial guidance for reticulating houses in townships, DWAF (1994: 19) stipulated that urban municipalities were ‘responsible’ for:

- Ensuring that all households were provided basic services ‘within a reasonable time frame’; and

- Developing a business plan that explained: (a) its strategy for meeting state-set servicing goals; (b) what capital funding would be used and how the funds would be secured; (c) how O&M costs would be ‘fully recovered’; and (d) an explanation of residents’ willingness to pay for services. DWAF stated that it would ‘advise... on the viability of such plans’.

In summary, the 1994 *White Paper* sets out the proposed *RDP* demand-driven approach to integrated development of water services—especially services for the poor in democratic South Africa. Remarking on the impact of the 1994 *White Paper*, Tissington (2011) stated that this policy informed the 1997 *Water Services Act* (see Section 4.5) and guided the principles outlined in the 2001 *Basic Household Sanitation Policy* (see Section 4.9). The 1994 Housing *White Paper* moreover reiterates DWAF’s cost recovery rule in water services (DoH, 1994). The influence that the 1994 *White Paper* has had suggests that DWAF, indeed, set the tone for national sector-related legislation and policies as it had intended. Some of the aforesaid *RDP* and *White Paper* principles are also (unsurprisingly) restated in the ‘supreme law of the Republic’: the *Constitution* (RSA, 1996a: 1243).

4.4 Constitution (1996)

South Africa’s *Constitution* is frequently cited as the ‘most sophisticated and comprehensive system for the protection of socio-economic rights of all the constitutions in the world today’ (Heyns and Brand, 1998: 153). It guarantees that all South Africans are ‘equally entitled to the rights, privileges and benefits of citizenship’ (RSA, 1996a: 1243). Both the state (DWAF, 2008a; RSA, 1997c, 2000a; SAHRC, 2014b) and civil society (SJC, 2010b; Tissington, 2011) cite it when advancing equitable access to sanitation in the present-day. These references suggest that the democratic government has re-cast sanitation as a social rights metaphor of inclusion, which is a stark contrast to its past role in fuelling social and spatial division.

The right to sanitation (as it is popularly referred to), however, is not explicitly provided for in the *Constitution*. It is said to be ‘enshrined’ (Algotsson et al., 2009; Mjoli and Bhagwan, 2008; Schaub-Jones, 2010) in the *Bill of Rights*⁵³ clause on the right ‘to an environment that is not harmful to [a person’s] health or well-being’ (RSA, 1996a: 1251).

⁵³ Called the ‘cornerstone of democracy’, the *Bill of Rights* is the *Constitution*’s second chapter (RSA, 1996a: 1245). It outlines the fundamental rights of all South Africans.

Tissington (2011: 19) added that the following passages also ‘implicitly refer to a right to basic sanitation or are fundamentally related to the enjoyment of this right’:

- The right to ‘access to adequate housing’⁵⁴ (RSA, 1996a: 1255);
- The right to having one’s ‘inherent dignity... respected and protected’, and ‘freedom and security of person’ (RSA, 1996a: 1247), which Tissington (2011: 20) noted as ‘pertinent for women, who may expose themselves to attack if toilet facilities are far from their homes’; and
- The right to equality (RSA, 1996a: 1247).

The *Constitution* designated ‘Water and sanitation services’ as being part of ‘local government matters’, and directed national and provincial governments to support municipal service delivery as lawmakers and regulators (RSA, 1996a: 1331(37, 3, 4)). Notably, municipal sanitation services were ‘limited’ to ‘domestic waste-water and sewage disposal systems’ (RSA, 1996a: 1331 (37)); and related environmental, public health, housing and urban development issues were specified as concurrent national and provincial government responsibilities (RSA, 1996a: 1331(36)).

The explicit delegation of sanitation services as a domain of local government in the *Constitution* is significant, for it gave municipalities ‘executive authority’ to ‘make and administer by-laws’⁵⁵ (RSA, 1996a: 1331(4), (2)); and limited the national and provincial governments’ ability to ‘compromise or impede a municipality’s ability... to exercise its powers or perform its functions’. A municipality’s policies and actions, however, are ‘subject to national and provincial legislation’ (RSA, 1996a: 1331(2)). For example, the *Constitution* stipulated that a municipal ‘by-law that conflicts with national or provincial legislation is invalid’ (RSA, 1996a: 1331(4)). A municipality in democratic South Africa, in other words, may have legislative and executive authority in its area of jurisdiction, but its policies and practises should align with the laws that have been enacted by its national or provincial authorities. Of the two higher-level legislative bodies, the *Constitution* ascribed pre-eminence

⁵⁴ Sanitation is not mentioned in the ‘adequate housing’ clause, but the Constitutional Court (see Section 5.1.1) ruled in 2000 that housing includes sanitation services.

⁵⁵ In South Africa, a by-law is a rule that is formulated by a public institution to standardise its systems and procedures and comply with national legislation. For example, the City of Cape Town (CoCT, 2014a) municipality defined a by-law as local legislation ‘that is passed by the Council of a municipality to regulate the affairs and the services it provides within its area of jurisdiction’.

to the national legislature, for provinces are also expected to fulfil their assigned tasks ‘in terms of national legislation’ (RSA, 1996a: 1331(23)).

Additionally, to ‘enable’ development through policies such as basic service delivery, national government stated its local counterpart ‘is entitled to an equitable share⁵⁶ of revenue raised nationally’ to meet its servicing obligations (RSA, 1996a: 1331(29)). As a ‘development-oriented’ public administration, a municipality is constitutionally obligated to:

- (a) structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community; and (b) participate in national and provincial development programmes (RSA, 1996a: 1331(71, 3)).

The aforementioned constitutional clauses on fundamental human rights and the relationship between the different levels of government are consistent with the 1994 *White Paper’s* position that municipal services are provided in an equitable and coordinated manner. The *Constitution* also elaborated on the intergovernmental hierarchy entrenched in South Africa’s government—stressing especially the supremacy of national legislative authority in defining and setting the base criteria by which all local and provincial services are measured. Though a municipality should align its development policies and actions with the laws of its higher-level counterparts, the *Constitution* enhanced the local government’s executive authority by: granting it the ‘right to govern’ matters such as sanitation according to its own discretion; and limiting national and provincial government in the municipal domain to policymaking and regulatory roles (RSA, 1996a: 1331(2)).

McDonald and Pape (2002: 4) noted that the *Constitution* had ‘a highly contentious rider’ related to the affordability of its developmental programmes, because it did not account for ‘one’s ability to pay’ when accessing social and economic rights; and it entwined a municipality’s obligations concerning socio-economic rights to its resources. McDonald and Pape stated that the latter proviso has especially been significant in service delivery, because local governments have used the *Constitution* to successfully justify disconnections in situations where consumers did not pay their rates during the democracy’s first decade of governance. McDonald and Pape (2002: 4) argued that the success of these justifications

⁵⁶ Equitable share is a grant from national government to its local and provincial counterparts. National government stipulated that grantees can ‘determine’ the servicing ‘priorities’ that they use their ‘unconditional’ grants for, so long as the grantees use equitable share towards their assigned constitutional functions, and spending abides by national government’s ‘set norms and standards’ (DoT, 1998: 58).

shows that, despite its rights rhetoric, South Africa's democracy has adopted a 'neoliberal "enabling" or "facilitating" state' approach, for its

citizens' rights are linked to the law of the market and cost recovery has sunk its claws deep into the Bill of Rights.

It, however, is unsurprising that national government has largely accepted the municipal argument of limiting public services due to non-payment, for both the 1994 *RDP Policy* and the 1994 *White Paper* suggested that users should financially contribute towards the water they consumed. The *Constitution* also echoed that all citizens are 'equally subject to the duties and responsibilities of citizenship' (RSA, 1996a: 1243). McDonald and Pape nevertheless raise a significant point concerning South Africa's pro-poor policies and legislation: who is responsible for fulfilling the rights that are promised in the *Constitution*?

The 1996 *National Sanitation Policy White Paper* indicated that the 'main responsibility for providing household sanitation rests with the family or household', and the state should support its citizens by enabling access to public services (RSA, 1996b: vii). Policymakers likely highlighted the responsibility of citizens in household sanitation provision due to the 'enormous costs involved' in equitably providing services across the country, which had 'forced' the government to identify 'ways of stretching its limited resources as far as possible' (RSA, 1996b: 17). Given also the 'urgent imperative to correct the wrongs of apartheid' at a speed that could be sustained by all levels of governments, national policymakers sensibly wanted to divide sanitation costs between private citizens and public institutions (RSA, 1996b: 17). While the 1996 *White Paper* was 'never formally approved' by national government (DWAF, 2001c: 4), a summary of the document is included as Appendix J because it informed the formulation of the 2001 *Basic Household Sanitation White Paper* (see Section 4.9).

4.5 Water Services Act (1997)

Unlike the *Constitution*, the *Water Services Act* (RSA, 1997c: 12) clearly stated that 'Everyone has a right of access to basic water supply and sanitation'. National legislators set the 'prescribed minimum standard' for basic sanitation at what is

'necessary for the safe, hygienic and adequate collection, removal, disposal or purification of human excreta, domestic waste-water and sewage from households, including informal households' (RSA, 1997c: 8).

This definition related a range of outcomes that would meet the national government's basic standards. The *Water Services Act* also explicitly stated that consumers⁵⁷ in 'informal households' should receive basic services, though basic service delivery is 'subject' to the following 'limitations':

- Servicing constraints related 'to the nature, topography, zoning and situation of the land in question'; and
- Discontinuing 'water services where a consumer fails to meet his or her obligations to the water services provider'—such as 'failure to pay for services', though providers 'may include an option' for limited access to basic services (RSA, 1997c: 12, 26).

National legislators plainly labelled municipalities as water services authorities that were responsible for services in their jurisdictions—including the delivery of services in 'emergency situations... at the cost of that authority' (RSA, 1997c: 10, 20); and required that each authority draft a *Water Services Development Plan (WSDP)* that described how they intended to achieve their respective servicing obligations (RSA, 1997c: 12). Akin to the business plan described in the 1994 *White Paper* (see Section 4.3.4), a *WSDP* should relate details such as:

- Population size and distribution characteristics, including statistics and locations of consumers without basic service access;
- Its proposed infrastructure and tariff plans; and
- A 'time frame' that outlined a five-year implementation plan (RSA, 1997c: 20). With regard to those who would not have basic access within five years, legislators stated that a *WSDP* should explain the 'expected time by which they would be 'reasonably' serviced (RSA, 1997c: 20).

The *Water Services Act* also gave the Minister of DWAF the authority to 'prescribe' the national norms and standards for water services provision and tariffs (RSA, 1997c: 16). National legislators required that these norms and standards account for the needs of a diverse group of users; the various types of service delivery; and the social, economic and physical

⁵⁷ A 'consumer' was defined as 'any end user who receives water services from [an] institution, including an end user in an informal settlement' (RSA, 1997c: 8).

attributes of different regions. The Minister was to especially consider ‘equitable access’ needs; the ‘operational efficiency and economic viability’ of water institutions; and the need to ‘promote or achieve water conservation’ (RSA, 1997c: 16, 18). The Minister promulgated the compulsory norms and standards in 2001, and DWAF disseminated additional regulatory guidelines a year later. These norms, standards and regulations are discussed in Section 4.8.

The *Water Services Act* significantly provided for the legal right to basic sanitation access; included informal settlement residents in the state’s consumer base; and authorised the Minister of DWAF to prescribe the sector’s regulatory standards. The *Water Services Act*—like the 1996 *Constitution* and the 2000 *Municipal Systems Act*—moreover conferred municipalities with the legal authority to ‘impose reasonable limitations on the use of water services’ in their jurisdictions (RSA, 1997c: 20). The *Municipal Systems Act* is discussed in further detail next.

4.6 Municipal Systems Act (2000)

The *Municipal Systems Act* established the general protocol and regulations for the sustainable and coordinated development of public services. This law repeated much of the local government rights and developmental duties accorded in the 1996 *Constitution* by reiterating that municipalities should ‘strive, within its financial and administrative capacity’ to consult communities and provide basic municipal services⁵⁸ in an ‘equitable’ and ‘sustainable’ manner that promoted a ‘safe and healthy environment’ (RSA, 2000a: 20). Legislators allowed local government to fulfil its duties through ‘external mechanisms’ such as a service delivery agreement⁵⁹ with a private contractor, so long as a municipality ‘ensure[d] continuity of the service if the service provider... is for any reason unable to continue performing its functions in terms’ of the agreement (RSA, 2000a: 76).

In the spirit of ‘co-operative governance’, legislators re-stated that municipalities must ‘comply’ with the duties that are ‘set out’ in the *Constitution*, such as participating in national and provincial measures (RSA, 2000a: 52, 54); and ‘align implementation’ so that it observes the ‘planning requirements’ outlined in national and provincial legislation (RSA, 2000a: 36). These points infer that local governments were mostly responsible for fulfilling

⁵⁸ ‘Basic municipal services’ are ‘necessary to ensure an acceptable and reasonable quality of life and, if not provided, would endanger public health or safety or the environment (RSA, 2000a: 14).

⁵⁹ It is made ‘between a municipality and an institution or person’ in situations where a ‘service is provided by that institution or person, either for its own account or on behalf of the municipality’ (RSA, 2000a: 18).

the state's intergovernmental cooperation objective—for they were expected to follow the rules set by higher-level legislators and align their programmes to their counterparts. National legislators, moreover, formalised local level adherence by requiring municipalities to draft and adopt *Integrated Development Plans (IDPs)* that 'aligned with any national or provincial sectoral plans and planning requirements' (RSA, 2000a: 38).

To complement the aforementioned rights and obligations of municipal governments, national legislators gave local community members the right to access to services and contribute to a municipality's decision-making processes in the form of 'written or oral recommendations, representations and complaints' to elected officials, municipal administrators or other public bodies (RSA, 2000a: 20). Legislators noted that community members, in turn, 'have the duty... to observe the mechanisms, processes and procedures of the municipality', and 'to pay promptly service fees... and duties imposed by the municipality' (RSA, 2000a: 22). The *Act* also broadly defined a 'local community' as:

- Residents, ratepayers or visitors—especially 'the poor and other disadvantaged sections of such body of persons'; as well as
- The civic, non-governmental, private and labour organisations that 'are involved in local affairs within the municipality' (RSA, 2000a: 14, 16).

In brief, the 2000 *Municipal Systems Act* built upon the concepts of people-oriented progress, intergovernmental coordination and municipal executive authority that were outlined in the 1994 *RDP Policy*, the 1994 *White Paper* on water services, the 1996 *Constitution* and the 1997 *Water Services Act*. Together, these policies and laws largely reflect rationalisations of:

- **State-assisted self-help:** The national government expected citizens to use their own resources when attending to their needs, with limited administrative and financial aid from the government. For example, national policymakers and legislators subsidised the capital costs of basic infrastructure, and expected that each private household would pay for 'higher levels of sanitation'. Wilkinson (1998: 226) had described such a policy approach as 'state-assisted self-help', because the 'central tenet' was that the poor should supplement their public subsidies 'by drawing on private sector funds... as well as their own resources of energy, accumulated savings and social networks'.

- **Cooperative government:** National government characterised coordination as being orderly organisation within different levels of government, amongst different organisations and across different stages of policymaking.
- **National pre-eminence:** National policymakers and legislators required that municipal implementers comply with the rules, laws and standards that they had set. For instance, the former had pre-eminence in terms of defining and setting the minimum norms and standards concerning the quantity and quality of services rendered by municipal governments.
- **Municipal cost recovery:** All citizens have the duty to contribute towards the costs of water that they had consumed. The national government, in seeking to balance household responsibility and government affordability, especially underscored the ‘user pays’ principle as being a central aspect in the sector’s ultimate ‘sustainable and equitable development’ (DWAF, 1994: 8).

In addition, the 1994 *White Paper* indicated that basic sanitation provision would comprise of sewerage services in townships on a per property basis, and household services would be subsidised through the five-year *RDP* housing campaign. Based on the principles and frameworks outlined in the aforesaid state policies and laws, the national government sought (in 1996) to realise universal water and sanitation access by 2006 (RSA, 1996b).

Data from the 2001 census, however, indicated that achieving universal access to basic water and sanitation services within five years would be a monumental task: approximately 11.9 million people still lacked access to adequate water supplies, and over a third of the population (at roughly 17.25 million) did not use adequate sanitation facilities (StatsSA, 2001: 82, 90). Many officials at DWAF—especially its Minister and Director-General—recognised that achieving universal access by 2006 would be a pipe dream. This realisation prompted DWAF to investigate whether it needed to shift its paradigm to redress inequitable service provision at the turn of the century. In other words, by the time that legislators had enacted the 2000 *Municipal Systems Act*, the water services custodian had already begun its search for ‘an alternative policy approach’ to increase access to basic services nation-wide (DWAF, 2004a: 15).

4.7 Free Basic Services Policy (2001)

In late 1999, Ronnie Kasrils, the then Minister of DWAF (2004a), viewed a newly-built water system in the village of Lutsheko. Kasrils (2000: 1) implied that implementers of the state-funded borehole had followed national policy, for taps had been installed within 200 metres of every household; families contributed ‘R10 a month (under 5 US cents per day)’ towards operations; and the scheme was ‘well run’ by villagers. Given that the project met DWAF’s technical, financial and administrative specifications, Kasrils (2000: 1) could have easily concluded that the government had ‘improved the lives of 3000 people’ in Lutsheko. Kasrils (2001: 51), however, questioned the state’s success after visiting the new borehole:

...I went down to see the borehole, on the banks of a dried out riverbed. There I found a young woman, with a three-week old baby on her back, scooping water out of a hole she had dug in the riverbed. When I asked her why she was not using the taps, she told me she could not afford to do so. For those living in deep poverty, a US nickel is just too much to spend on a day’s supply of clean water.

The riverbed exchange prompted Kasrils (2000: 1) to reflect on the findings of a recently published survey, which had indicated that many women in poor rural households felt that spending ‘R10 on clean water would... deprive their children of food’. Mike Muller (2008: 72), DWAF’s then Director-General, likewise found in another government-sponsored village system that the ‘highly subsidized’ rates of R5 per kilolitre were still too great for local incomes. Consequently, only 323 of the targeted 7,500 households utilised the new state-subsidised system.

Recognising that the experiences in Lutsheko were not ‘unique’, Kasrils (2000: 1) interrogated whether the government’s cost recovery principle was appropriate given the desperate circumstances of the rural poor. Kasrils (2000: 2) inferred that the national cost recovery policy was premised on the international valuation of water as an ‘economic good’, which accorded that consumers should fully cover the conveyance, treatment and disposal costs of the water they use. In recognition that some families cannot afford the full costs of services, the government subsidised basic services for the poor as a ‘social good’ by requiring that low-income households only contribute towards O&M costs (DWAF, 1994). This water pricing policy indicated that policymakers had conceived of water as both social and economic goods from 1994. Kasrils commented that the international water sector lauded South Africa’s novel pricing approach. The Stockholm International Water Institute (2000: 3,

1), for instance, bestowed its Water Prize⁶⁰ upon the preceding Minister of DWAF, for his ‘unprecedented efforts’ in ‘promoting water legislation and development programs that provided access for millions who had been denied’ services during the apartheid.

Despite these accolades, Kasrils (2000: 2) remarked that the ‘plight of the women of Lutsheko’ highlighted a major shortcoming in South Africa’s celebrated water pricing policy: the cost of water—even when highly subsidised—limited the poor’s access to basic services. This finding was significant, as Muller (2006: 5) later reflected, because it indicated that even small service charges could ‘potentially violat[e] the Constitutional right of access’. Kasrils (2000: 4), moreover, remarked that rural municipalities struggled to sustain the ‘complicated’ and ‘complex’ cross-subsidy revenue schemes in areas where an ‘overwhelming majority of people are poor’. Given that the national government’s water pricing policy limited household access and was difficult to administer, Kasrils (2001: 51) argued that ‘systems that provide subsidies simply to be paid back in water charges are neither appropriate nor workable’ in rural areas. In hindsight, Kasrils (2000: 3) stated that DWAF’s pricing policy reflected policymakers’ incomprehension of ‘the reality of deep poverty’ in places like Lutsheko; and their ‘huge assumptions about the role and nature of government’ as a service provider. While Kasrils does not explicitly outline what these assumptions are, he implied that the state had erroneously presumed that the poor had enough money to afford subsidised rates, and that municipalities had the means to recover costs from households.

According to DWAF (2004a: 15), Kasrils’ observations in Lutsheko triggered the national custodian’s exploration of an ‘alternative’ approach for increasing basic access in rural areas. Kasrils thereafter proposed that the government sponsor a new policy that fully subsidised the costs of basic rural services to the poor. Such a proposition suggests that the then Minister valued water services for the rural poor solely as a social good. Kasrils (2000: 5, 9–10) notably did not invoke the right to services in his proposal, but premised his ‘sound, social policy approach’ on a concept of ‘interconnectedness’:

In South Africa, we talk of *Ubuntu*, a concept that says we are only people through other people. We do not help the poor because we are charitable. We help them because they are part of us and we are nothing without each other. Above all we aim to create a better life for all our people.

Meaning ‘humanity’ or ‘kindness’ in Nguni⁶¹, the ethical concept of *ubuntu* is popularly understood as a moral driver for transforming post-apartheid society and improving

⁶⁰ The Stockholm Water Prize is popularly regarded in the water sector as the Nobel Prize of Water.

social welfare (Bray et al., 2010; Pera et al., 2005; RSA, 1997d). Williams (2000: 175), for example, remarked that many state-sponsored development schemes advocated that the broader society, through the indigenous concept and practice of “Ubuntu”... is being encouraged to reflect, enunciate and uphold the ethos and practice of interpersonal cooperation, altruism, and consideration for others.

Williams’ quotation suggests that the state generally uses the principle of *ubuntu* to instil ‘morals and values that facilitate social cohesion’ in modern times (Etzioni, as cited by Gray and Mubangizi, 2009: 188)⁶². Kasrils’ use of *ubuntu* follows this logic, for the then Minister evoked it to encourage compassion from all South Africans for the lesser fortunate in rural areas.

While DWAF first confirmed having cost recovery and implementation challenges in rural villages, it is significant to note that cities and towns also struggled to recoup costs from the poor. Muller (2008: 72) even stated that problems experienced in urban ‘payment for operations’ programmes were more ‘acute’ than rural areas, because poor urban households (using reticulated services) tended to have higher consumption costs than their rural counterparts. Muller (2008: 72) reported that urban water service providers struggling with non-payment found themselves in the undesirable position of being ‘forced to disconnect users’ or establish ‘expensive administrative systems to pursue their debts’. Both of these consequences were problematic, as the former restricted access to basic services, and the latter affected the financial security and capacity of water institutions.

In spite of these challenges in cities and towns, Kasrils stated that the national government should not fully sponsor urban services. Kasrils (2000: 5) stressed that such financial support was unnecessary, because experiences from Durban had indicated that a municipal stepped tariff was an ‘efficient and effective’ means of cross-subsidising the recurrent costs of poor households’ within a locality. According to officials from eThekweni’s Water Services Department, the municipality instituted its *Free Basic Water* policy for the urban poor in 1996 after officials struggled to justify cost recovery in informal settlements, for the income collected from poor households did not offset the municipality’s operations costs (Bailey, 2003; WSP, 2001). Some officials, moreover, reportedly felt uneasy about collecting duties from poor households that had difficulty paying them. Upon reviewing their

⁶¹ Nguni is a Southern African language group spoken by the Bantu people. Zulu, Xhosa, Swazi and Ndebele are all Nguni Bantu languages.

⁶² Gray and Mubangizi (2009: 188) also noted that the government’s use of *ubuntu* can indicate its ‘need for unity or social solidarity’ with civil society.

accounts and acknowledging their consumers' challenges, eThekweni officials 'decided that it was not appropriate to pursue payment at all costs' (Muller, 2008: 73). The municipality thereafter stopped charging the poor for the first six kilolitres of water⁶³ used over a thirty-day period (Bailey, 2003). Encouraged by eThekweni's experience, Kasrils (2000: 5) presumed that 'big cities like Durban' could design similar cross-subsidies that would ensure that the O&M costs of the poor would be recovered from 'those who use more water'.

Reflecting upon the aforementioned operations challenges during the first five years of democracy, Muller (2008: 72) concluded that the national government's 'initial policy assumptions were flawed', and that DWAF had to review elements of its pricing policy if it intended to meet its servicing goals. The then Director-General moreover stated that DWAF had to 'consider the implications of newly-established local government structures' in its policy review (Muller, 2008: 72). According to Muller (2008: 70), local governments underwent a massive amalgamation process from 1994 to 2000 to undo the apartheid legacy of racially-based institutions. For example, Cape Town had 58 local governments in 1994, which the state first reduced to seven authorities in 1996, and then further condensed into the present-day 'unicity' in 2000 (CoCT, 2011a: 4). Given the rapid transformation of local governments countrywide, Muller recognised that many municipalities were in the process of establishing new administrative structures, operations and servicing policies. While the initial implementation of the payment for operations policy had not taken into account this tenuous institutional context, Muller (2008: 72) highlighted that local administration—in particular, 'the overall financial sustainability of municipal water service'—would be at the 'core' of DWAF's policy review.

Presuming that the national cost recovery policy limited access to the poor and the payment for operations policy was impractical to administer, DWAF ultimately argued that it was sensible to forego the prevailing cost recovery principle and fully subsidise the poor's access to basic services in villages, towns and cities. While the national government fully subsidised basic rural services, the urban component of DWAF's new tariff policy was 'informed' by the cross-subsidy experiences of eThekweni Municipality (Muller, 2008: 73). The influence of Durban's *Free Basic Water* programme indicates that DWAF looked towards the experience of local implementers to ground national policies.

Free Basic Water was eventually raised in Parliament in July 2000, and incorporated into the ANC's 'social wage' policy (Muller, 2008: 75). Conceived in 1998, the ruling party

⁶³ Further explanation of the six-kilolitre allocation is presented in Section 4.8.1.

envisioned that the social wage would supplement extant welfare grants as an extra ‘package of goods and services’ from the government to the poor (Muller, 2008: 75). According to Mosdell (2006: 283), then President Thabo Mbeki publicly pledged this free package of services in September 2000 as part of the ANC’s re-election campaign:

Many of our people are poor and cannot pay for a little bit of water or for a half day of electricity... So this manifesto of the ANC says when we get elected to municipal government we will ensure the poor get some.

Following a successful re-election in December 2000, an ANC-led government adopted its seminal *Free Basic Services Policy* in January 2001 so that affordability did not impede access to basic municipal services in South Africa (Mosdell, 2006). National policymakers thereafter planned to establish tariffs that enabled the provision of limited quantities of state-subsidised water, sanitation, drainage, refuse removal and electricity services to poor households⁶⁴ for free (DWAF, 2003; Still et al., 2009). According to Muller (2008: 74), the water and sanitation component of the new policy went into effect after the ‘promulgation’ of DWAF’s *Norms and standards for water services tariffs* schedule in June 2001. Further discussion of these norms and standards are presented in Section 4.8.

Muller (2008: 67), who was DWAF’s Director-General during the establishment of *Free Basic Services*, recognised that the decision to provide the poor with a basic amount of water at no cost was ‘controversial’, for ‘Traditional policy advice was that all water should be paid for, even if some costs were subsidized’. In response to the critics who questioned the policy’s financial feasibility, Muller (2008: 84) responded that *Free Basic Services* ‘is not a model for broad application’, as the South African government—which is neither ‘donor-dependent’ nor ‘subject to aid conditionality’—had designed the policy ‘for its particular circumstances’. Seven years after its promulgation, Muller (2008: 84) further argued that the policy’s success showed that DWAF’s ‘practical’ approach to water pricing had successfully challenged the ‘previously accepted wisdom that all water use should be paid for’.

Interestingly, Muller distinguished the initial development of *Free Basic Services* from the right to water and sanitation discourse, by stating that DWAF’s policy was not instituted to meet constitutional servicing obligations. Muller (2008: 85) explained that DWAF was driven by its ‘political priorities’, and that the rights rationale was only introduced when its programme for servicing the poor and sustaining local governments was

⁶⁴ A poor household lacks ‘enough money...to attain a basic minimal standard of living’ (DWAF, 2008a: 10).

already ‘well underway’. Although Muller did not explicitly say what DWAF’s political priorities were, he implied that DWAF’s conceptualisation was premised on the principle of water being a socio-economic good. Muller’s framing thus coincided with Kasrils’ request that *ubuntu* underpin the democracy’s approach to ethically redressing inequity in the twenty-first century. Despite this initial motivation, DWAF’s (2001c, 2002b, 2003) later publications suggest that both the goods and *ubuntu* rationalisations have fallen away, for the policy has largely been re-cast as the government’s means of fulfilling its constitutional obligations. DWAF, for example, defended its policy to the European Union in 2002 by arguing that:

free basic water provides a mechanism for meeting the constitutional test for ‘water as a human right’... This mechanism is an important contribution to turning that social right into practical reality (Muller, 2008: 84).

This quote suggests that *Free Basic Water* is a means of realising the constitutional right to water in South Africa. Yet, not all rights advocates have been supportive of the state’s rights-based approach. Political economist Patrick Bond (2014: 9), for instance, stated that the free monthly allotment of six kilolitres of water per household is nothing more than a symbolic gesture for the poor in cities like Durban, as the stepped tariff policy has created affordability constraints for many households that struggle to afford rates beyond the free allotment. Bond (2014: 9) thus argued the national government’s tariff policy for realising the right to water reflects the state’s ‘commercialisation instinct’, and that this social right consequently is ‘either being sabotaged or delivered in a tokenistic way’. Further explanation of the tariff structure that underpins *Free Basic Water* is presented in the next section, as well as DWAF’s norms and standards for water and sanitation services.

4.8 Norms & standards regulations (2001-2002)

As authorised by the 1997 *Water Services Act* (see Section 4.5), the Minister of DWAF promulgated the *Regulations relating to compulsory national standards and measures to conserve water*; and the *Norms and standards in respect of tariffs for water services* in June 2001. DWAF moreover issued supplementary guidelines a year later. What follows is a summary of the *Free Basic Water* and *Sanitation* regulatory provisions.

4.8.1 Regulations relating to compulsory national standards (2001)

The 2001 *Regulations* outlined the ‘minimum standards’ for basic water and sanitation services as follows:

- **Basic water supply provision:** An ‘appropriate education’ campaign regarding the ‘effective’ use of water; and ‘25 litres per person per day or 6 kilolitres per household per month’. Taps should be provided within 200 metres of every household at a flow rate of at least ten litres per minute.
- **Basic sanitation service provision:** An ‘appropriate health and hygiene education’ programme; and a toilet that is

safe, reliable, environmentally sound, easy to keep clean, provides privacy and protection against the weather, well ventilated, keeps smells to a minimum and prevents the entry and exit of flies and other disease-carrying pests (DWAF, 2001a: 4).

With regard to water provision, Muller (2005: 5) explained that DWAF’s six-kilolitre figure stemmed from the *RDP Policy*. That policy stipulated that citizens should have access to a short-term supply of 20 to 30 litres per capita per day (lcd) (RSA, 1994: 33). Taking the average of this range, DWAF (1994: 35) set the individual minimum standard at 25lcd (750 litres per month) in its 1994 *White Paper*. When calculating the six-kilolitre monthly household figure, the custodian multiplied the personal monthly allotment by eight (DWAF, 2002b; Muller, 2005). Muller (personal communication, 23 July 2015) explained that

The 8-person household was chosen as the basis for [*Free Basic Water*] using household survey data from StatsSA⁶⁵ because it ensured that around 95% of households would have at least 25lcd. Since the average household size was around 4, it also implied that the “average” household would receive around 50lcd.

4.8.2 Norms & standards in respect of tariffs for water services (2001)

The 2001 *Norms and standards* went into effect on 1 July 2003. It established the taxation structure for the water services component of *Free Basic Services*, and gave service providers the authorisation to set fixed and volume-based service charges. A fixed charge refers to a monthly levy that is charged ‘irrespective of the actual volume of water supplied or amount

⁶⁵ Statistics South Africa is a public institution that is responsible for producing national censuses.

of effluent⁶⁶ discharged' (DWAF, 2001b: 2). A volumetric tax, in contrast, is based on the proportion of water supplied or disposed of.

DWAF (2001b: 4) stated that service providers should base their tariffs according to whether: (a) water is delivered on a communal⁶⁷ or household basis, and the infrastructure provides a controlled supply⁶⁸; and (b) the household sanitation service is connected to a sewer. With regard to *Free Basic Water*, DWAF intended to fund the initiative through the national equitable share grants, as well as a tariff whereby higher volume consumers subsidised the costs of lower volume users (Muller, 2005: 5). DWAF (2001b: 5) required that municipalities set their own tariffs, but stipulated the following conditions when designing volume-based cross-subsidies according to a 'rising block' structure:

- A service provider should have a minimum of three blocks in its tariff, with each block representing different ranges of consumption over a thirty-day period.
- The consumption volume in the 'first' or 'lowest tariff block' should range from a minimum of zero to a maximum six kilolitres.
- The 'last' or 'highest consumption block' should 'discourage high water use' and account for the additional infrastructure costs incurred to meet demands.

In brief, the *2001 Norms and standards* rising block (stepped) tariff reflects the rationale of redistribution that had also been previously embedded in the proposed 'progressive block' cross-subsidy or 'sliding tariff' policy (see Sections 4.2 and 4.3.3).

4.8.3 Regulatory guidelines (2002)

DWAF disseminated the following regulatory guidelines in August 2002: *Guidelines for Compulsory National Standard; Norms and Standards for Water Services tariffs*; and *Water Services Provider Contract Regulations*. Then Minister Kasrils noted that his intention in circulating these additional guidelines was to:

⁶⁶ Effluent refers to 'human excreta, domestic sludge, domestic waste-water, grey water or waste water resulting from the commercial or industrial use of water' (DWAF, 2001a: 3).

⁶⁷ A communal connection means 'water services are supplied to more than one household' (DWAF, 2001b: 2).

⁶⁸ A controlled supply refers to the intentional restriction of water to a specific volume, whereas an uncontrolled supply has no such limitations (DWAF, 2001b: 2). A prepaid water meter that provides a fixed amount of water for free before charging its users is an example of a device that controls water supply volumes.

- Provide municipalities with a framework by which they could supply ‘affordable’ and ‘sustainable access’ to water services;
- Uphold the ‘principles enshrined in our Constitution and the Water Services Act’; and
- Give ‘substance to the right of access to a basic level of service’ (DWAF, 2002b: 2).

Kasrils’ intentions suggest that he sought to further qualify the legal and social right to water and sanitation through national regulations. Moreover, Kasrils’ first point aligns with his predecessor’s vision of setting the agenda and legal structure that municipalities could base their services upon:

It is not up to central government to provide services, but to create a framework within which they can be provided. This requires clear regulations and legislation to protect both consumer and provider, which I intend to promote (Kader Asmal in 1996, as cited by Muller, 2008: 70).

The 2002 guidelines largely elaborated on regulations for all water services in South Africa—explaining especially DWAF’s rationale when devising its norms and standards. For example, DWAF (2002b: 13) remarked that education on ‘how to use water efficiently’, as well as the ‘proper operation and maintenance of infrastructure’, would enable the poor from exceeding their free allocations and promote water conservation by reducing their demand. DWAF’s additional guidance essentially highlighted its expectations and aims, which municipalities thereafter had to figure out how to achieve.

In summary, DWAF’s 2001 *Regulations*, 2001 *Norms and standards* and 2002 guidelines collectively provided a regulatory framework by which municipalities could provide basic water and sanitation in their respective jurisdictions. The 2001 *Regulations* definitively set national minimum water and sanitation standards, while the 2001 *Norms and standards* formally embedded the principle of redistribution within municipal water tariffs. To note, the *Water Services Act* had given the Minister of DWAF authorisation to prescribe these regulations in 1997, which suggests that the process for establishing national policies can lapse several years. It is also significant to mention that DWAF did not offer any guidance on communal sanitation services. While DWAF indicated that water could be supplied in a communal manner⁶⁹, the institution’s sanitation norms, standards and tariffs only provided for household services.

⁶⁹ DWAF (2002b: 51) stated that a standpipe shared by multiple households is a ‘typical’ communal waterwork.

4.9 Basic Household Sanitation White Paper (2001)

DWAF (2001c: 3–4) disseminated the *Basic Household Sanitation White Paper* as part of its ‘constitutional responsibility to ensure that all South Africans have access to adequate sanitation’. What follows is a discussion of the 2001 *White Paper*’s distinctive policy aspects.

4.9.1 Inconsistent basic sanitation definition

In light of *Free Basic Services*, DWAF (2001c: 30) said it was critical to give municipalities clear guidance on the minimum technical standards and health and hygiene promotion standards that will satisfy the criteria provided in the definition provided for a basic level of service.

This statement indicates DWAF’s acknowledgement of its role in directing municipal implementers as a policymaker and standard-bearer. For example, DWAF (2001c: 30) stated that policymakers would prioritise the development of basic sanitation guidelines that set the minimum requirements for ‘different settlement densities and geological conditions’. While DWAF (2001c: 5) did not outline these different requirements in the 2001 *White Paper*, but it did describe the ‘minimum acceptable basic level of sanitation’ as:

- The adoption of ‘appropriate’ health and hygiene practises;
- A ‘system for disposing of human excreta, household waste water and refuse’ that is ‘acceptable’, ‘affordable’ ‘safe’ and ‘easily accessible’ to users;
- A ‘toilet facility for each household’.

Several of the above-mentioned basic sanitation characteristics interestingly differ from the 1997 *Water Service Act*’s definition and the 2001 *Regulations*’ standard in two ways. The first is that the 2001 *White Paper* made a provision for refuse removal. While household refuse was included in the *RDP* definition of sanitation, sanitation services in the 1997 *Water Services Act* and the 2001 *Regulations* only pertained to the control of human faecal matter and wastewater. Secondly, the 2001 *White Paper* explicitly stated that basic sanitation should be provided to every household. The 1994 *White Paper* had also recommended that toilets are provided on a household basis, but the 1997 *Water Services Act* and the 2001 *Regulations* did not have such specifications. When comparing the basic standards set in general policy as opposed to those described in legislation or regulations, it is

evident that national government has provided unclear and inconsistent guidance concerning sanitation provision. Furthermore, despite stipulating the need for ‘appropriate’ health and hygiene promotion, the 2001 *White Paper* (like the preceding legislation and policies) offered little guidance on what suitably benefit DWAF’s requirements for this concern.

4.9.2 Informal settlements acknowledgment

DWAF (2001c: 6) stated that informal settlement services would ‘specifically’ be covered in this *White Paper*. DWAF (2001c: 30), however, did not provide any guidance for servicing them aside from indicating that those who ‘enjoy informal land rights’ on private land could access the national housing subsidy. The custodian’s attention to informal land rights nonetheless was significant, because it meant state subsidies could be used in situations where people lacked tenure.

DWAF’s acknowledgement of informal settlements, moreover, reflected an important shift in housing policy that was then taking place. As noted in Section 4.2, the state aimed to provide one million new houses by 1999. Similar to water services, national legislators mandated that municipalities provide ‘access to adequate housing on a progressive basis’ in the 1997 *Housing Act* (RSA, 1997a: 24). Local governments countrywide accordingly enabled private contractors or community-based organisations⁷⁰ to build ‘starter homes’ that were subsidised by once-off national capital grants, and further topped-up with municipal funds (Charlton and Kihato, 2006; Huchzermeyer, 2001: 322). Del Mistro and Hensher (2009: 334) noted that the capital subsidy at first was restricted to the building of new structures, but over time the housing custodian allowed: developers to upgrade extant or build new rental accommodation, and individuals to purchase existing houses or build their own units on fully-serviced sites. By 2000, the state reached its goal of housing one million households ‘seven years into ANC rule’ (Huchzermeyer, 2011: 115).

Many of these housing projects, however, were undesirably situated in peri-urban areas, and far from extant transportation networks and economic opportunities (DoH, 2004a). Marie Huchzermeyer (2001: 318), who has written extensively about the democratic government’s informal settlement policies, remarked that many housing beneficiaries especially struggled to commute to or find work. They consequently returned to squatting in areas that were centrally located, though Huchzermeyer (2001: 318) said it was ‘unclear’ if

⁷⁰ A CBO refers to a civil society group that is likely organised on the basis of ‘common interests’ (CoCT, 2014d)—such as living in a specific neighbourhood.

they had left their ‘subsidised houses due to desperation or due to speculation’. Regardless, many continued to squat in informal settlements despite the state’s housing achievements. Huchzermeyer (2001: 322) stated that the outcome of the democratic government’s housing initiative suggested that the ‘concept of a once-off subsidisation of house construction on its own is not a sustainable solution to housing’.

The slow rate of new low-cost housing delivery in well-located areas due to insufficient funding, limited administrative capacity and unavailability of desirable land at the local level resulted in the further proliferation of informal settlements in urban areas (Huchzermeyer, 2001). Informal settlement populations also continued to grow due to unanticipated rural-urban migration, natural population growth and the ‘influx of foreign nationals’ (DWA, 2012: 12; DWAF, 2008b; Pillay et al., 2006). Despite the continued existence of informal settlements at the turn of the century, the national government had not yet to explicitly acknowledged ‘squatter settlements’ in its post-apartheid housing policies (Huchzermeyer, 2001: 324, 323). Huchzermeyer (2001: 324) said the ‘evasive discourse’ consequently meant there was no government means to address the phenomenon.

After meeting its *RDP* aim, however, housing sector policymakers began to shift their focus from formal developments to informal settlements. In 2001, the then Housing Minister (as cited by Huchzermeyer, 2011: 115), said the nation was

still faced with daunting challenges... Then, it was where to build new houses; today, it’s how to eradicate informal settlements.

Inspired by the international *Cities Without Slums* and *Millennium Development Goals* movements (Cities Alliance, n.d.; NPC, 2013; UN, 2000), Huchzermeyer (2011: 115) said the national government set a new target of eradicating all informal settlements by 2014. But Huchzermeyer (2011: 115) noted that the state’s previous *RDP* goal and its new eradication campaign were ‘two sides of the same coin’, because

the focus remained unreservedly on the symptom: a flood of shacks to be stemmed at the outer edge of an orderly city, through neat rows of state-sponsored formal housing units.

Huchzermeyer (2001: 324) explained that in the preceding housing programme, developers conventionally planned informal settlements as ‘greenfield’ sites⁷¹. Following

⁷¹ In urban planning, a greenfield is an undeveloped parcel of land. In contrast, a greyfield is underdeveloped or abandoned, and a brownfield may have been contaminated from their preceding industrial or commercial uses.

conventional building standards in informal areas, however, generally required de-densification⁷² through removing households ‘forcibly’ to new housing developments or ‘transit camps’⁷³ on the urban periphery (Huchzermeyer, 2001: 324, 2011: 114). Huchzermeyer (2011: 113) said that on-site development under the *RDP Policy* usually resulted in ‘the destruction of the informal settlement’. In other words, the informal settlement was eradicated. The state’s new informal settlements eradication policy was hence an extension of the old housing programme.

Published after the adoption of the *Free Basic Services Policy*, DWAF disseminated the 2001 *White Paper* to aid the municipal implementation of basic sanitation services—especially in rural areas and informal settlements. The White Paper, however, offered a definition that was inconsistent with preceding legislation and regulations. Moreover, while it was the first sector document that acknowledged the needs of informal settlements, it offered limited guidance for servicing them. Given the housing custodian’s recent acknowledgement of informal settlements, it is unlikely that DWAF had time to draft such specifications. The lack of guidance for informal settlements nonetheless suggests that their services continued to be tied to the housing programme after eight years of democratic rule.

The Executive Cabinet eventually approved the 2001 *White Paper* in September of that year, but Tissington (2011: 33, 36) inferred that ‘many municipal officials’ were unhappy with the document, as several noted that it was ‘formulated without adequate consultation’ and did ‘not address their needs’. These sentiments suggest that national policymakers had drafted and disseminated this *White Paper* in a top-down fashion. Given this top-down focus, DWAF (2003: 3) consulted various sector stakeholders to prepare another document that addressed the ‘full spectrum’ of water services. Originally drafted as the *White Paper for Water Services* (DWAF, 2002a), discussed next is what resulted from that consultation.

4.10 Strategic Framework for Water Services (2003)

DWAF (2003: 3) said its *Strategic Framework for Water Services* was necessary, as the country’s socioeconomic conditions and institutional context had ‘significantly’ changed since the dissemination of the 1994 *White Paper*. The most notable difference was the

⁷² Harber (as cited by Huchzermeyer, 2011) said de-densification is a ‘polite word for getting rid of shacks’.

⁷³ A place where people reside temporarily before their relocation to permanent housing.

establishment of local governments in 2000. DWAF (2003: 2) highlighted this event because it meant that municipalities could finally ‘assume full responsibility’ for their constitutional servicing obligations. This was significant for DWAF (2003: 6), as policymakers aimed to realise universal water and sanitation access by 2010. In brief, the *Strategic Framework* provided an outline of the national sector’s vision; an implementation framework for achieving this vision ‘over the next ten years’; and a ‘comprehensive summary’ of the policy principles underpinning the document (DWAF, 2003: 3, 2). What follows is a summary of DWAF’s noteworthy guidance concerning basic sanitation services for informal settlements.

4.10.1 Informal settlement services

DWAF (2003: 43) obliged municipalities to provide ‘interim’ basic services to ‘unauthorised’ settlements on a temporary basis. DWAF (2003: 67) said a

temporary sanitation service... should provide privacy to the user, be readily accessible and in close walking distance, and provide for the safe disposal of human waste.

The *Strategic Framework* was DWAF’s first policy that explicitly prescribed services to those residing in informal settlements. DWAF (2003: 43), moreover, advised that municipalities ‘expeditiously’ address the land tenure problems in these scenarios, and said it would provide ‘best-practice guidelines’ to assist implementers with servicing informal settlements. DWAF’s guidance coincides with the then Minister of Housing Brigitte Mabandla’s development of a ‘more sensitive approach to informal settlements’ (Huchzermeyer, 2011: 115). Mabandla eventually authorised a major shift in national informal settlements policy that her successor (Lindiwe Sisulu) oversaw from 2004 to 2009 (Huchzermeyer, 2011: 116). The new policy (called *Breaking New Ground*) is discussed in the next chapter in relation to the Kosovo informal settlement upgrade.

4.10.2 The water ladder & appropriate technologies

While the 1994 *RDP Policy* alluded to service improvement over time (see Section 4.2), the *Strategic Framework* is the first sector policy that characterised progressive servicing as climbing a ‘water ladder’ (DWAF, 2003: ii). DWAF (2003: 12, 27) depicted *Free Basic Water* and *Sanitation* services as the ‘the first step up the ladder’, and ‘intermediate and

higher levels of services’ as the upper rungs. With regard to ladder’s first step, DWAF (2003: 46, 66) elaborated on the differences between a facility and service:

- **Basic sanitation facility:** ‘The infrastructure necessary to provide a sanitation facility which is safe, reliable, private, protected from the weather and ventilated, keeps smells to the minimum, is easy to keep clean, minimises the risk of the spread of sanitation-related diseases by facilitating the appropriate control of disease carrying flies and pests, and enables safe and appropriate treatment and/or removal of human waste and wastewater in an environmentally sound manner’.
- **Basic sanitation service:** ‘The provision of a basic sanitation facility which is easily accessible to a household, the sustainable operation of the facility, including the safe removal of human waste and wastewater from the premises where this is appropriate and necessary, and the communication of good sanitation, hygiene and related practices’.

DWAF (2003: 27, 28) noted that national grants and municipal cross-subsidies would adequately provide for the delivery of *Free Basic Water* and *Sanitation* facilities to the poor ‘within a reasonable period of time’; cover ‘ongoing’ O&M costs; and ensure ‘sustainable’ access to services. With regard to service provision, DWAF (2003: 12, 46, 31) reiterated that municipal implementers could decide how they would ‘progressively’ realise their constitutional obligations (e.g. choosing the technology), in recognition that municipalities should make such decisions ‘subject to the availability of resources’, capacity constraints and a settlement’s conditions. Regardless of these points, DWAF (2003: 30) reasoned that waterborne sanitation is the ‘most appropriate technical solution’ in high-density urban areas, and should be ‘regarded as a basic level of service’ in such circumstances. DWAF (2003: 30) further remarked that ‘on-site’ (un-sewered) sanitation facilities would be ‘most appropriate’ for peri-urban areas, as the system would be ‘financially viable and sustainable’ for water services authorities. DWAF notably did not discuss the users’ perspective in either scenario.

DWAF (2003: 27) highlighted that realising universal basic service access was its ‘most important policy priority’, and the provision of higher levels of service only an ‘immediate priority’. The public institution nevertheless expected that local governments would meet both basic and higher level service demands, subject to their resources (DWAF, 2003: 27, 13). DWAF (2003: ii, 27, 29) said that its role in ensuring higher levels of service

was to consider the increase of state-sponsored basic water services from 25 to 50 litres per person per day, and the municipal infrastructure and equitable share grants ‘over time’. The custodian’s guidance and intentions indicate its assumptions of:

- The costs of *Free Basic Water* and *Sanitation* services to the poor—which ‘not large’ given South Africa’s ‘economic size and strength’ (DWAF, 2003: 29)—would be fully financed from national grants and local cross-subsidies.
- Municipal basic water and sanitation services would continually improve (albeit at an incremental rate) as the basic sanitation backlog decreases.
- More financial resources would become available as the basic sanitation backlog decreases and economic growth increases, thereby allowing DWAF (2003: 27, 2) to raise the basic allocation ‘threshold’ and subsidise higher service levels over time.

4.10.3 Actors’ roles & responsibilities

First noted in Section 4.3.3, ‘Consumer responsibility’ continued to be central theme in DWAF’s (2003: 6) policies. While DWAF (2003: 6, 3) recognised that everyone has the right to basic services, the institution reiterated that it ‘comes with a corresponding responsibility’ of using water services sensibly, and paying for allocations beyond the basic allotment. In addition to the policy beneficiaries’ responsibilities, the custodian clarified the following key government roles:

- Municipalities, as the local implementers and regulators of water services, are ‘ultimately accountable’ for what they provide, and needed to ‘conform with national policies, norms and standards’ (DWAF, 2003: 52, 57). They moreover should integrate the technical, social, institutional, environmental and financial (capital, O&M, rehabilitation and replacement costs) aspects of services in their development plans, block tariff designs and policies (DWAF, 2003: 42).
- National government should formulate legislation, policies and regulations; provide support to guide municipal governments; and regulate service delivery. DWAF (2003: 21, 22, 5), as the ‘water services sector leader’, should work with the following national stakeholders to align sector policies and programmes:
 - The National Treasury should allocate subsidies such as equitable share and regulate municipal compliance with national finance rules.

- The Department of Provincial and Local Government should ensure that municipalities take an ‘integrated development planning’ approach; administer the above-mentioned National Treasury grants; and intervene if a municipality is not meeting its obligations.
- The Department of Health should organise hygiene interventions in conjunction with the provision of water services to ensure that all South Africans ‘are educated in healthy living practices’.
- With regard to new housing developments, DWAF stipulated that the Department of Housing’s policies ‘must be aligned’ with local government water and sanitation servicing policies.

Adding that servicing backlogs are ‘simply too big to be addressed by government alone’, DWAF (2003: 19) emphasised that the private sector needed to provide: contractual support in terms of consulting or construction, management and operations tasks; and financial support through bank loans and bonds. While the private sector would help design, construct or finance public infrastructure, DWAF (2003: 41) envisioned that civil society would assist municipal implementers by identifying local planning priorities and holding them accountable when necessary. DWAF (2003: 24) also indicated that they could assist with: policy development, research and advocacy; project planning and implementation of local projects with CBOs; monitoring sector performance; building links between the state and local communities; and mobilising additional funds. These private sector and civil society roles and responsibilities are similar to prior expectations outlined in the 1994 *White Paper* (see Section 4.3.2).

4.11 Summary

This chapter chronicled how contemporary infrastructure and sanitation policies evolved from racist colonial metaphors and apartheid practises. After linking past wrongs of the nineteenth and twentieth centuries to present-day under-development, it explained how national policymakers and legislators drew upon rights-based principles to formulate the democratic government’s new policies, laws and regulations from 1994 to 2003. After reviewing these documents, it is evident that South Africa’s sanitation policy discourse has

evolved throughout the first decade of democracy. For example, the national government's basic sanitation standard definitions from 1994 to 2003 (which is featured as a table in Appendix K) changed over time, with:

- A VIP latrine per household considered the minimum standard in 1994;
- By 1997, policymakers no longer cited VIP latrines as the technological standard, and began including 'non-technical' aspects (such as health and safety) in the basic sanitation definition; and
- By 2003, policymakers had decisively dropped the per household toilet criteria, distinguished between a basic facility and service and established an interim basic service definition for informal settlements.

With regard to the national custodian's perspective and role in redressing historical sanitation wrongs, my review of government documents indicates that the official policymaker and regulator adopted a largely pluralistic policy framing, in that they allowed for context-specific implementation of municipal initiatives that were based upon their broad 'vision, overall goals and approach' (DWAF, 2003: 3). The repeated extension of deadlines after targets such as the basic sanitation goal were not met also suggests that national policymakers tended to flexibly formulate aspirational policies. Lastly, the national custodian expected to influence municipal infrastructure programs by setting agendas and formulating policy.

After formulating national sanitation policy 'from scratch' (M Muller, 2015: 276), DWAF (2003: 2) inferred that it had adequately fulfilled its policymaking role by establishing a comprehensive framework that would provide free access to a sizeable portion of the population that currently lacked basic services. National policymakers thereafter gave municipal authorities discretion as to how they would 'practically' realise their servicing obligations according to their respective capacity constraints and geo-physical limitations (DWAF, 2003: 29, 26). The next chapter examines whether national policymakers have established the objectives and enabling environment that strategically and practically eased the municipal implementation of sanitation for an urban informal settlement in Cape Town. I especially query whether the local government aligned its respective practises with national policy.

5. Kosovo (1999–2011)

Officials from the City of Cape Town (CoCT, 2006t) initially hailed vacuum sewerage as an ‘innovative’ sanitation ‘solution’ for informal settlements that are difficult to sewer with conventional technology (Figure 10). South Africa’s first vacuum sewer (CoCT, 2005d), however, failed immediately after its commissioning in early 2009. Kosovo’s residents consequently demanded that the City remove the flush toilets they had once anticipated, and ‘bring back’ their buckets (Figure 11).



Figure 10: A February 2006 municipal newsletter heralded vacuum sewerage as a sanitation ‘solution’ for Kosovo’s ground conditions (CoCT, 2006t).

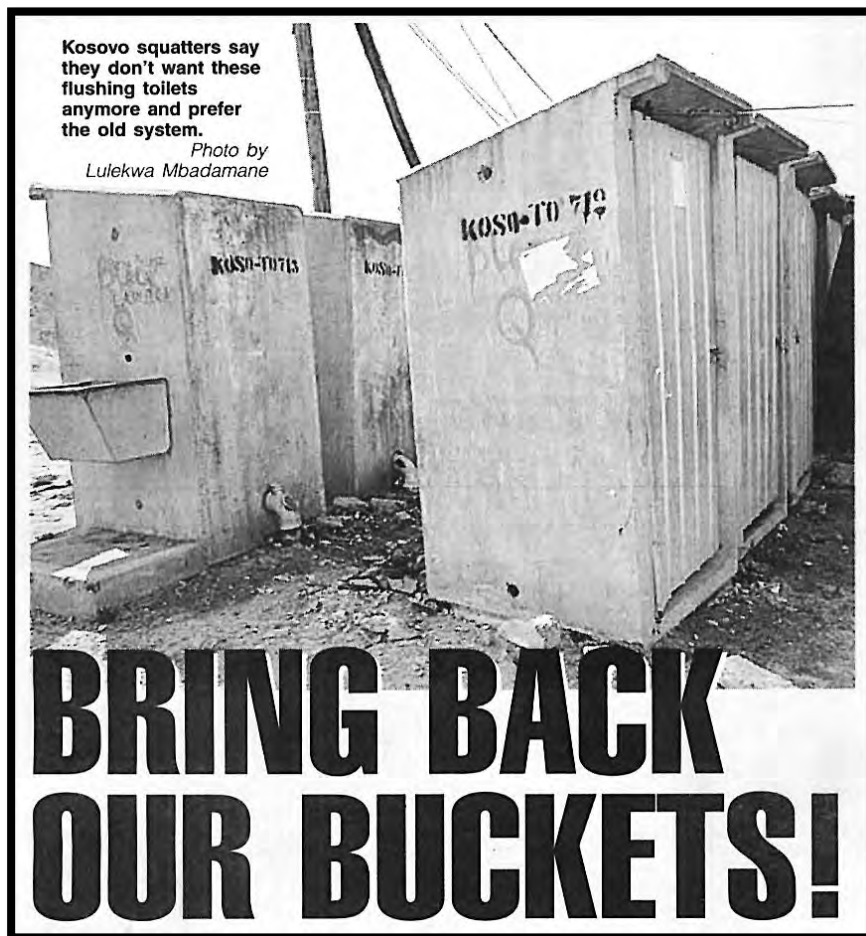


Figure 11: Unhappy residents demanded that the City replace the malfunctioning vacuum sewer with an un-sewered service (Daily Sun, 2011).

How did this promising endeavour—which supposedly had immense political and financial support—fail so abysmally? I review the events that collectively led to the vacuum sewer’s failure in this chapter. I first present background data from documents saved in the Kosovo vacuum sewer’s project files from December 2003 to February 2007 to explain the City’s then sanitation policy for informal settlements, the motivation for the vacuum sewer upgrade and the initial programmatic constraints and assumptions that contributed to the sewer’s ultimate failure. I supplement this data with information from: (a) interviews with municipal officials who were responsible for Kosovo’s sanitation services; and (b) relevant court rulings, national policies, CoCT media releases, student theses, research publications and municipal contractors’ documents. The Kosovo case study will show the challenges that policy implementers face when executing groundbreaking informal settlement interventions in light of conflicting rationales in policymaking and project planning.

5.1 History & servicing policies (1999-2005)

Kosovo informal settlement is situated in the suburb of Phillipi. According to the 2013 municipal dwellings count, it has 6,111 households and is Cape Town's third largest informal settlement in structural density (CoCT, 2013c). It was part of a privately owned farm prior to its 'invasion' in August 1999 (CoCT, 2004b). Kosovo's first residents named their new home after a war-torn region in Yugoslavia that was then in the news (Beauclair, 2010: 5). The owner of the farm (Laycrest Pty Ltd) did not provide basic services to the informal settlement residents then because, as Roxanne Beauclair (2010: 5) noted in her ethnographic study of Kosovo's vacuum sewer upgrade, doing so could potentially violate Laycrest's eviction order. Despite declaring access to basic services a human right for all South Africans, the national government did not offer direction for servicing illegal occupants of public and private land at the time of Kosovo's invasion. CoCT officials recalled that the absence of a national informal settlements policy was problematic for them, because they lacked guidance on how informal settlements—especially those situated on privately owned land—should be serviced. They consequently did not provide Kosovo's residents with any water and sanitation services for several years. In lieu of municipal services, Kosovo's residents procured water from neighbouring Samora Machel or the nearby train station, and dug holes in the settlement's sandy soils for pit latrines (Beauclair, 2010: 7–8).

5.1.1 Irene Grootboom Constitutional Court ruling (2000)

Urban geographer Nick Graham (2005: 63) indicated that the 4 October 2000 Irene Grootboom Constitutional Court⁷⁴ decision was a turning point for municipal informal settlement policymaking in Cape Town. Irene Grootboom was the first respondent of a landmark court case that had successfully challenged the then Cape Town government for unlawfully evicting a group of informal settlement residents from their homes (Constitutional Court, 2000: 3). While the Constitutional Court (2000: 2, 68) recognised that the residents had 'illegally occupied' land that was earmarked for permanent housing, it found that the government had fallen 'short of compliance' with state policies and its constitutional obligations by not making 'reasonable provision within its available resources' to progressively realise the evicted residents' constitutional right of access to adequate housing.

⁷⁴ The Constitutional Court of South Africa is the supreme court in matters concerning the *Constitution*.

While the *Constitution* did not specify criteria for adequate housing, the Constitutional Court (2000: 29) inferred that it encompasses shelter, land and service provision in its ruling:

a right of “access to adequate housing”... entails more than bricks and mortar. It requires available land, appropriate services such as the provision of water and the removal of sewage and the financing of all of these, including the building of the house itself. For a person to have access to adequate housing all of these conditions need to be met: there must be land, there must be services, there must be a dwelling.

The Constitutional Court (2000: 34–35) moreover implied that ‘progressive realisation’ could be measured in terms of diminished obstacles to access and gradual servicing of a broader range of society over time:

The term “progressive realisation” shows that it was contemplated that the right [to adequate housing] could not be realised immediately. But the goal of the Constitution is that the basic needs of all in our society be effectively met and the requirement of progressive realisation means that the state must take steps to achieve this goal. It means that accessibility should be progressively facilitated: legal, administrative, operational and financial hurdles should be examined and, where possible, lowered over time. Housing must be made more accessible not only to a larger number of people but [also] to a wider range of people as time progresses.

In light of its ruling and understanding of adequate housing and progressive realisation, the Constitutional Court (2000: 67, 55) required that the state:

- Plan and ‘implement within its available resources a comprehensive and coordinated programme’ to provide for the right to access adequate housing; and
- Provide ‘rudimentary shelter irrespective of the availability of resources...on demand’ to children and their parents in instances where the latter are unable to house their families, because every child has a constitutional right to shelter (RSA, 1996a: 1255).

The Constitutional Court (2000: 11) did not specify criteria for rudimentary shelter, but noted that it provides some ‘protection from the elements’ and ‘falls short of adequate housing’. Regardless of the Constitutional Court’s vague language, the policy implications for informal settlement servicing were evident to Cape Town officials: with or without national policymakers’ guidance, the City had to establish a housing programme with basic services for informal settlement residents that would provide for their progressive right of access, and accommodate children (and their parents) upon request. Notably, the

Constitutional Court's ruling was made at a time when the Department of Housing's (2004a: 18) 'official policy response to informal settlements' was undeniably 'one of conflict or neglect' (see Section 4.9.2). In the absence of a national informal settlements policy, Cape Town officials recognised that they had to devise their own servicing policies without the housing custodian's guidance. Fortunately, the Constitutional Court's decision was made shortly before local governments throughout the country underwent massive transformations that provided an opportunity to develop such policies.

5.1.2 Integrated Development Plan (2001)

As noted in Section 4.7, the Independent Municipal Demarcation Board established the City of Cape Town (CoCT) in December 2000 by amalgamating six local councils and a regional local authority (Cameron, 2006). Because of its unification, CoCT (2001a: 10) had

To restructure the organization, re-deploy staff and put systems into place that would provide for effective service delivery and development of the City.

The newly-established institution indicated in its *Integrated Development Plan* that its 'rapid organizational design and redeployment strategy' would establish:

- 'Decentralized area-based coordination' of municipal functions;
- 'Clear lines of reporting and accountability'; and
- Integrated municipal operations through systems such as the digital management of files in the City's new Enterprise Resource Programme (ERP) (CoCT, 2001a: 19).

Of the above-mentioned measures, CoCT (2001a: 19) aimed to restructure its organisation and redistribute all of its staff by January 2003. Given that it still had to provide services throughout its restructuring, the unicity continued to provide water and sanitation services as seven separate administrative units 'in the meantime' (CoCT, 2001b: 8).

The *IDP* denoted the City's overall plan for informal settlements. With regard to their future, CoCT (2001a: 13) said that 'upgrading of informal settlements will be promoted' alongside its other housing initiatives. Graham (2006: 232) said that this position was based on local government officials' realisation

that the provision of subsidised formal housing would never eliminate the housing backlog or eradicate informal settlements in the city, and hence

incremental upgrading [was] presented as a pragmatic response to the scale of the informal settlement problem.

Put differently, CoCT officials recognised that informal settlements were ‘here to stay’ due to land unavailability and municipal resource constraints, and opted sensibly to upgrade them. Upgrading generally involved the introduction of services and discussions about a settlement’s future. In December 2001, CoCT outlined its water and sanitation policy and strategy in its first *Water Services Development Plan (WSDP)*, as required by the 1997 *Water Services Act* (see Section 4.5). What follows is a summary of CoCT’s provisions for informal settlements in light of the *Free Basic Services Policy* (see Section 4.7).

5.1.3 Water & Sanitation Development Plan (2001)

The 2001 *WSDP* notably grappled with implementing *Free Basic Services*. CoCT (2001b: 94) officials said that they: (a) used a ‘rule of thumb’ approach based on their experiences; and (b) relied on findings from a consultancy group’s willingness to pay study, to inform their planning decisions. With regard to the study, the consultants held focus group discussions with heads of low-income households who explained that they were:

- Unwilling or reluctant to pay for services because they either believed water is a natural resource and hence should be free of charge, or were dissatisfied with ‘irregular and inadequate services’ and ‘unresponsive’ civil servants.
- Unable to pay because they have no income, were not billed or received statements that were ‘inaccurate’, ‘incomprehensible’ or difficult to settle at ‘inaccessible’ payment offices (CoCT, 2001b: 96–97).

CoCT (2001b: 11, 97) noted that the ‘problem of non-payment’ would likely jeopardise the City’s ‘financial viability’, because the ‘potential extent of cross-subsidisation’ from other consumers for *Free Basic Services* was already ‘limited’. Nevertheless, in spite of the financial risk, CoCT (2001b: 11) established a monthly tariff that gave the first six kilolitres of water (and the corresponding sanitation surcharge⁷⁵) ‘free of charge to all consumers’, so that affordability did not restrict access to basic water and sanitation services.

⁷⁵ Following DWAF’s (2002b: 59) sewerage tariff guidance, CoCT (2009a) charged consumers with a fixed rate based on property values, and a 70% volumetric rate that reflected the amount of water supplied. Officials said this percentage was based upon the average amount of wastewater returned to sewers (Cape Times, 2002).

Interestingly, CoCT did not restrict the *Free Basic Water* and *Sanitation* allocation to poor households as the national government had intended. CoCT officials explained that setting the parameters for and identifying a ‘poor’ household was (and remains) difficult. To further complicate the implementation of *Free Basic Services*, CoCT (2001b: 88) noted the challenge of accurately planning for informal settlement residents’ servicing needs

due to the fact that settlements are dynamic—some may not be permanent, some may move and the number of households living in informal settlements is likely to grow in [the] future given the relatively low rate of provision of formal housing opportunities.

Regardless of the difficulty of servicing informal settlements, CoCT (2001b: 25) recognised that the 1997 *Water Services Act* obliged the City to ‘progressively’ provide ‘all consumers’ with ‘access’ to sanitation services. CoCT hence established service categories in which it distinguished between different levels of sanitation services according to access or technology (Table 4). With regard to basic services, CoCT quoted the definition from the 2001 *Regulations* (see Section 4.8.1), and said its basic level of service would comprise of un-sewered toilets provided either on a household or communal basis. CoCT (2001b: x) explained that it understood DWAF’s minimum service standard as being a VIP latrine or its ‘equivalent’, and reasoned that a ‘formalised black bucket’, ‘container toilet’ or ‘chemical toilet’ offered a comparable service to a VIP latrine (Figure 12). While bucket, container and chemical units are un-sewered sanitation options in which waste is manually emptied and conveyed to a treatment plant, there are some differences between the three services in terms of allocation and ownership:

Table 4: Sanitation service categories (CoCT, 2001b: 20).

Inadequate	No access to basic sanitation as defined below.
Basic	a) the provision of appropriate health and hygiene education; and b) a toilet which is safe, reliable, environmentally sound, easy to keep clean, provides privacy and protection against the weather, well ventilated, keeps smells to a minimum and prevents the entry and exit of flies and other disease- carrying pests. <i>This service includes VIP's, Formal black bucket, Container and Chemical Toilet usually provided as a communal service.</i>
Intermediate	Communal Toilet (Ablution Facilities)
Full	On-site Waterborne, Septic Tank or French Drain



Figure 12: A black bucket (left), container toilet (centre) and chemical toilets (right) (Goldberg et al., 2009: 13). Both container and chemical toilets comprise of seats placed atop 100ℓ plastic containers and top-structures that consist of a door affixed to a cubicle. CoCT (2010b) pays a contractor to pour ‘odour-inhibiting chemicals’ in each unit after it is emptied and disinfected.

- **Allocation:** A 25ℓ black bucket provided by the City is allocated on a per household basis. Container and chemical toilets, in contrast, are communal services.
- **Ownership:** Container toilets are generally housed in stationary concrete top-structures built by contractors and owned by the City, whereas chemical toilets in portable plastic units are rented from a service provider.

In general, CoCT (2001b: 21, x) aimed to provide informal settlement households with ‘some form of shared toilet’ based on: (a) the settlement’s ‘local conditions’; (b) the City’s financial resources and constraints; and (c) the ownership of the land that a settlement is situated upon. CoCT officials explained, in hindsight, that they preferred providing unsewered sanitation options because it is easy to implement in most ground conditions and inexpensive compared to sewer services. Moreover, officials were reluctant to provide waterborne sanitation as a basic service due to the ‘large up-front expenditure required’ for installing new sewers and building additional treatment works, which ‘inevitably’ translated into ‘higher costs’ for ratepayers (CoCT, 2001b: 22).

Pottie (as cited by Graham, 2006: 231) stated that local governments funded and implemented their informal settlement initiatives largely on an ad hoc basis. Graham (2005: 87) explained that CoCT officials generally undertook their ad hoc measures in reaction to

disastrous floods and fires that frequently plagued informal settlements. The officials said that they had attempted to implement long-term incremental servicing projects, but the City's lack of a strategic policy (which would have clearly indicated the future status of informal settlements) generally undermined their attempts at planning (Graham, 2005: 78, 128). They thus provided services where possible.

With regard to water and sanitation services, municipal officials said that they could readily provide communal standpipes and toilets to informal settlements residents on government-owned properties. They, however, struggled, to service those residing informally on private land. The reason for this, Graham (2005: 64) explained, was that the City had 'no legal provision' to provide services on private property without the landowner's permission. CoCT officials (2001b: 22) said they investigated how they could lawfully service informal settlements on private land, but 'Legal advice'⁷⁶ then 'discourage[d] the supply of any form of services to such areas'. Without legal recourse to meet their constitutional servicing obligations, Graham (2005: 64) reported that municipal officials contacted 'each landowner individually' to get consent, and, if their requests were denied, they fitted services in

public land adjacent to these settlements until... a by-law [allowed] the City to install services on private land without the permission of the landowner.

Officials said that Laycrest did not give the City consent to service Kosovo's residents, so they had to install infrastructure in public spaces around the settlement's periphery. For example, they placed installed standpipes along the pavement and fire hydrants in the roads that flanked Kosovo. These water services unfortunately did not address the natural drainage problems of the low-lying settlement. Kosovo residents consequently received emergency shelter, clothing and bedding at local halls from CoCT's (2002a) annual flood-relief programme in the winter of 2002. CoCT's (2002a), moreover, provided residents with 'waterproofing' materials—such as filling as a means to counter flooding by raising homes above ground level.

Three months after being inundated by stormwater, Kosovo residents dealt with a devastating fire that raged through the settlement. According to a memo written by a fire-fighter who responded to the 'Kosovo Squatter Camp' emergency on 4 November 2002, over 100 shacks burned 'to the ground' because: (a) the settlement lacked fire hydrants and the few in the area had been 'vandalised'; and (b) its dense 'built environment' and 'illegal'

⁷⁶ CoCT did not say who provided the legal advice.

wiring restricted vehicular access (CoCT, 2002b). The fire-fighter also reported that his crew had returned to Kosovo a day later but they again struggled to access the settlement because new dwellings had ‘gone up overnight’, consequently ‘blocking previous entry points’ (CoCT, 2002b). Based on the fire-fighter’s report, it was evident that the City’s inability to provide basic services directly to Kosovo, as well as the settlement’s unconventional layout and structural density, adversely affected residents’ well-being. The fire-fighter’s memo seemed to be the first in a series of communications between various municipal departments that were concerned with the state of Kosovo’s infrastructure and its residents’ welfare. The next significant exchange took place a year later.

In December 2003, the Ward⁷⁷ Councillor⁷⁸ that represented Kosovo requested that the City provide the settlement with services. Also, it is likely that the Ward Councillor recommended that CoCT (2003) purchase the land that Kosovo is situated upon, as a senior official explained in his response to the representative that the City:

- Could not legally service unauthorised occupants of private property; and
- Had an ‘accepted practice of not purchasing occupied land due to the precedent this would create’.

According to several officials, the City’s then policy and practise reflected their fear that service delivery to informal settlements might encourage people to stay or unlawfully occupy other properties. Graham (2005: 63), for example, noted that officials in 2004 hesitantly serviced informal settlements because land invaders might interpret service provision as ‘the unofficial granting of tenure rights’.

Despite the senior official’s rationalisation to the Ward Councillor, the City purchased the occupied property on 25 March 2004. CoCT (2004a) acquired 19.55 hectares of the farm holding from Laycrest for R450,000, because it was a ‘political priority’ to upgrade the informal settlement into permanent housing. An official from Property Services remarked that the farm’s former owners were unhappy with the sale, because they only received 30% of the occupied plot’s market value (CoCT, 2004b). She further noted that Laycrest was of the ‘view that the council did nothing to assist them with protecting their land from invasion’

⁷⁷ Established in the 1998 *Municipal Structures Act* (RSA, 1998a), a ward is a ‘geopolitical subdivision’ in government that functions as ‘the lowest administrative unit in a municipality’ (Musvoto et al., 2011: 319).

⁷⁸ A Councillor refers to either an elected or appointed municipal council member (RSA, 1998a: 30). A Ward Councillor is ‘elected to represent a ward’ by residents living in that jurisdiction (RSA, 1998a: 32) at a municipality, and represent the municipality at a community level (Musvoto et al., 2011: 319).

(CoCT, 2004b). Regardless of the sellers' dissatisfaction, the sale was groundbreaking, for Kosovo was the first occupied property that the City had purchased with the express purpose of transforming an informal settlement into a permanent development.

5.1.4 Breaking New Ground Policy (2004)

CoCT's purchase of Kosovo and its plans for formalisation corresponded with the national government's forthcoming guidance concerning informal settlements in its *Breaking New Ground (BNG) Policy*. As noted in Section 4.9.2, the state aimed in 2001 to eradicate all informal settlements by 2014. The *BNG Policy*, which was disseminated in August 2004, outlined the Department of Housing's (DoH, 2004a: 1) plan for realising this objective through the in-situ (on-site) transformation of well-located informal areas into 'sustainable human settlements'⁷⁹. National policymakers gave the following guidance about land utilisation and acquisition to the intended municipal *BNG* implementers:

- Available land for new housing developments tended to be undesirably located at the periphery of cities and towns. Many informal settlements, on the other hand, were situated in central locations near economic opportunities, transport networks and social amenities. Given the scarcity of well-located urban land, DoH (2004a: 11, 12) supported 'the eradication of informal settlements through in-situ upgrading in desired locations', and advised the 'relocation of households where development [was] not possible or desirable'.
- In light of spatial and affordability constraints, DoH (2004a: 20, 12) supported the development of informal areas as 'medium density housing' (e.g. multi-storey apartment complexes) at their present locations through a 'phased in-situ upgrading approach'. In other words, the government aimed to gradually replace informal settlements with walk-up flats where possible (Huchzermeyer, 2006).
- In situations where well-located private land could be obtained for new accommodation, DoH (2004a: 14) stated that it would devise a strategy 'to finance and guide the acquisition of private land for housing purposes'. DoH (2004b: 38, 39), moreover, said it could grant municipalities (upon application) additional funds for

⁷⁹ DoH (2004a: 12) defined 'sustainable human settlements' as 'well-managed entities in which economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend' and contribute to 'wealth creation, poverty alleviation and equity'.

securing well-located land that might be ‘less opportune’ for development due to environmental conditions—such as ‘extremely high water tables’; and being situated on former dumping sites or floodplains.

5.1.5 Upgrading of Informal Settlements Programme (2004)

In recognition that its norms and standards were ‘not specifically designed and geared for informal settlement upgrading’, DoH (2004b: 3, 4) added the *Upgrading of Informal Settlements Programme (UISP)* annexure to the *National Housing Code*⁸⁰ in October 2004 to formalise its ‘rules’ and ‘guidelines’ for in-situ developments. DoH (2004a: 12, 2004b: 3) explained that it intended the *UISP* to be an ‘instrument’ that would enable municipalities to upgrade informal settlements in a ‘structured way’, as well as empower ‘inhabitants to take charge of their own housing development’. While DoH (2004b: 4) may have targeted both municipalities and informal settlement residents in the *UISP*, the national institution only provided financial assistance to municipalities in the form of grants so that local governments could ‘rapidly’ provide the land, infrastructure and social services needed in upgrading projects. In addition to implementing in-situ developments, national policymakers expected their local counterparts to provide a requisite ‘10% minimum capital contribution towards the total cost of an upgrading project’, and ‘assume responsibility for the operation and maintenance of all engineering infrastructure’ (DoH, 2004b: 20). The ‘beneficiaries of the programme’, however, did not have to contribute financially to receive access to basic engineering services in upgraded developments (DoH, 2004b: 9).

In regard to municipal engineering services in upgraded informal settlements, the *UISP* stipulated the following norms, standards and expectations:

- Interim services should be provided firstly ‘to alleviate immediate/emergency need’ for basic municipal service access, and ‘curtail’ the effects of disasters such as the spread of fires. The national government specified that municipalities could supply ‘rudimentary’ water and sanitation services on a ‘communal’ and ‘temporary’ basis, and that their local counterparts regard all interim engineering works as ‘the first phase [in] the provision of permanent services’ (DoH, 2004b: 37, 7).
- Permanent engineering services such as reticulation networks should follow the technical specifications that are outlined in the *National Housing Code*’s ‘Permanent

⁸⁰ The *National Housing Code* outlines the norms and standards for residential developments in South Africa.

Residential Structures’ section. Moreover, the ‘ultimate density’ of an upgraded settlement should reduce incidences of settlement fires, and allow for ‘adequate access by both pedestrians and emergency and service vehicles’ (DoH, 2004b: 37, 7).

- The type and level of engineering services in a settlement should be a ‘subject of engagement between the local authority and residents’ in which the municipality balances affordability and ‘sound engineering practice’ with the needs and preferences of communities (DoH, 2004b: 8, 9).

Policymakers further indicated that municipalities must ‘ensure the inclusion of all key stakeholders’ in their programmes, and that they be able to ‘demonstrate’ that ‘effective interactive community participation’ had occurred throughout an upgrading process (DoH, 2004b: 9). The *UISP* did not elaborate on how effective participation could be proven, but it did set the ‘parameters’ for community partnerships, which was ‘to be undertaken through the vehicle of Ward Committees... in line with the provision of the Municipal [Structures]⁸¹ Act’ (DoH, 2004b: 9).

Established in the 1998 *Municipal Structures Act* ‘to enhance participatory democracy in local government’, legislators had intended for Ward Committees to give ‘recommendations on any matter’ in their jurisdiction to municipalities through their local Councillors (RSA, 1998a: 52). A Ward Committee generally comprises of a Ward Councillor and up to ten ‘other persons’ (RSA, 1998a: 52). For example, a CoCT (2014d) Ward Committee, which is meant to be the ‘most direct link between a community and the structures of Council’, should contain:

- Representatives of community-based organisations as voting members who ‘regularly consult their sectors and advise... on needs and priorities’ within the ward;
- A Ward Councillor as the Committee’s chairperson; and
- Non-voting members, such as a Proportional Representation Councillor⁸².

⁸¹ The *UISP* erroneously cited the 2000 *Municipal Systems Act* as the legislation that provided for the establishment and functions of Ward Committees in municipalities.

⁸² A ‘Proportional Representation Councillor’ is an appointed council member. As the title suggests, those chosen represent a percentage of a political party’s popular vote in an election (RSA, 1998a: 28).

In addition to community representation through Ward Committees, DoH (2004b: 17) noted that upgrading projects should occur

within a broader framework of public-public partnership in which various departments are expected to pursue an effective alignment of policies, legislation, capacity building and institutional arrangements in order to promote sustainable human settlements.

The public-public partnership that DoH (2004b: 17) outlined centred on inter-governmental coordination, with the national Department of Provincial and Local Government responsible for ‘alignment mechanisms’ between the three spheres of government. In these public-public collaborations, DoH (2004a: 12, 23) stated that the national and provincial administrations would ‘increasingly shift towards policy formation, monitoring and facilitation’ roles as the capacities of municipal implementers improved.

5.1.6 Ensuring water services to residents on privately owned land (2005)

Ten months after DoH disseminated its *BNG policy*, DWAF (2005) offered further ‘strategic guidance’ for ensuring access to water services to those residing on privately owned land. DWAF (2005) explained in the document’s *Preface* that ‘extensive research and consultation with municipalities’ had indicated that service provision on private land had ‘become increasingly significant’, thereby prompting national policymakers to publish a guide in June 2005. DWAF (2005) explicitly stated in its *Preface* that

All residents, wherever they may live, are entitled to receive at least a basic level of water and sanitation services.

Who though is meant to fulfil the servicing rights of informal settlement residents unlawfully living on privately owned land? Referring to the 1997 *Water Services Act*, DWAF (2005: 9) noted that this was dependent on whether the landowner had a ‘written (explicit) or verbal (implicit) contract with residents’. Given that no such contract generally exists in unlawfully occupied land scenarios, DWAF (2005: 9) stated that municipalities ‘need to provide services to residents, either where they currently live, or where they may be relocated to’. DWAF offered no further advice concerning the process by which municipalities could provide services to private properties such as informal settlements in its 2005 guide.

Interestingly, CoCT had already established that it was legally responsible for basic services in informal settlements a year before DWAF published its 2005 guide. Citing an

internal memo, Graham (2005: 64) noted that City Health officials had sought guidance from its in-house attorneys in 2004 to ‘investigat[e] the possibility of obliging the landowners to pay for the services themselves’. After reviewing the 1996 *Constitution*, the 2000 *Municipal Systems Act* and the 2003 *Health Act*, the Legal Services Department concluded that the City is obliged to provide emergency services to informal settlements at its own costs (Graham, 2005: 64). This municipal finding—coupled with the belated direction from national policymakers—highlights how national housing and servicing policies tended to shadow the lessons learnt from implementers in municipalities such as Cape Town. In light of the delayed guidance from national government, the next section discusses how CoCT officials largely determined their own policies for servicing informal settlements.

5.1.7 Municipal policymaking & implementation (2003-2004)

The sale of Kosovo in March 2004 occurred at a propitious time. CoCT then was in the process of reconciling its ‘fragmented, ad hoc initiatives’ for informal settlement development into ‘a single, coherent programme’ (Graham, 2005: 78). Graham detailed the conception and initial implementation of the *Framework for Upgrading Informal Settlements* in his 2005 Masters thesis. Graham (2005: 79, 88, 75) noted that, in lieu of direction from national policymakers, CoCT officials designed a ‘four-stage approach’ to incrementally improving informal settlements that were ‘suitable’ for permanent housing as its ‘working policy’ in 2003 (Figure 13).

The first step in the municipal policy concerned the categorisation of extant areas as either: (a) ‘suitable for further upgrading’, or (b) unsuitable due to a settlement’s location on floodplains or landfills, which officials referred to as ‘encumbered’ lands (Graham, 2005: 88, 74). The informal settlement categorisation, which essentially followed conventional engineering standards of greenfield sites, was important because it based the type of services and support officials intended to offer residents on a site’s potential for long-term development. Graham (2005: 79) said that informal settlements deemed ‘upgradeable’ would receive ‘rudimentary’ services in the first phase of its development; basic services in the second; full services in the third; and—using the official housing subsidy for private properties—formal housing and tenure in the fourth. In contrast to an upgradeable settlement’s development plans, the City would only give encumbered lands ‘temporary’ or ‘emergency services’ (Graham, 2005: 88, 80).

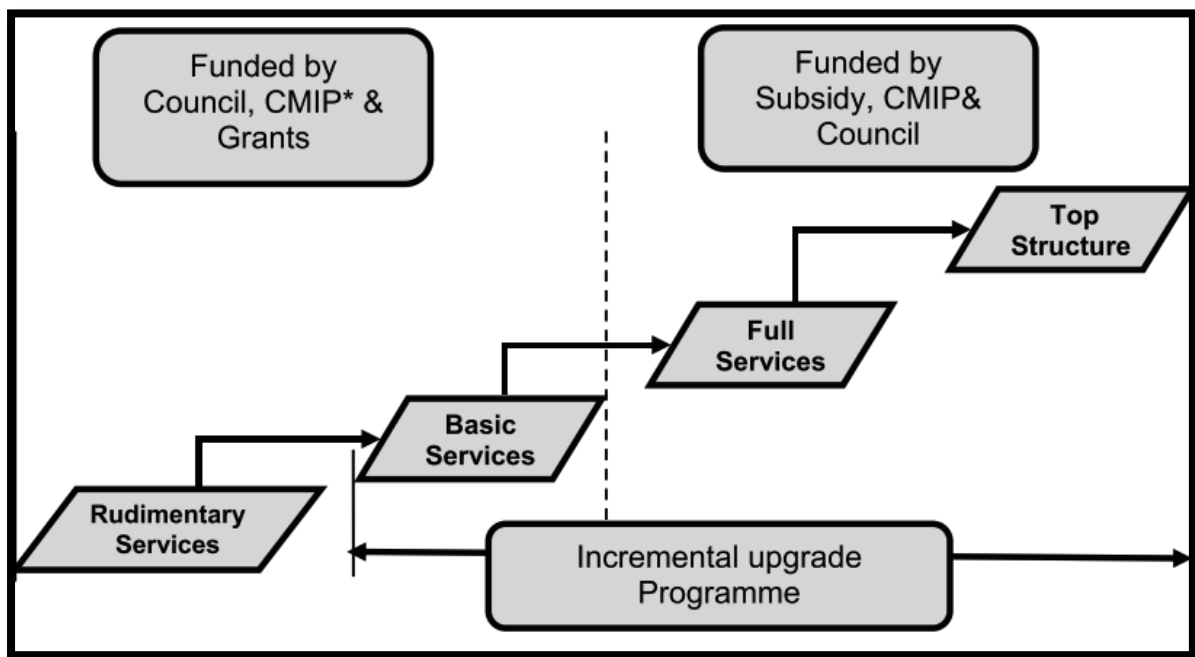


Figure 13: CoCT's original 2003 *Framework for Upgrading Informal Settlements* four-stage conceptual model, as cited by Graham (2005: 79). The acronym CMIP refers to the Consolidated Municipal Infrastructure Grant.

In actuality, the City provided informal settlements on both upgradeable and encumbered land with temporary services as a 'health intervention' while officials either worked towards incrementally developing areas in-situ, or relocating residents from encumbered land (Huchzermeyer et al., 2004: 62). In early 2004, the Mayor instituted the Emergency Servicing of Informal Settlements (ESIS) Project, and senior officials delegated the Development Support (DS) Department with the provision of interim services to each of the City's settlements (Graham, 2005: 88). The DS Department generally managed contracts with municipal service providers for infrastructure in formal neighbourhoods on a 'special project' basis (Graham, 2005: 61). DS was situated in a Directorate⁸³ called Development and Infrastructure. From my understanding, the Directorate functioned as a traditional town engineering unit, as it was responsible for planning, designing, constructing and managing all of the City's civil works. Graham (2005: 61) said that the Directorate's Public Housing Department (see a partial CoCT organogram in Figure 14) would take over the rest of the incremental upgrade programme after DS successfully serviced informal settlements with rudimentary services.

⁸³ A directorate in CoCT's administration is responsible for a specified function and is typically subdivided into departments, units and so on. An Executive Director manages it.

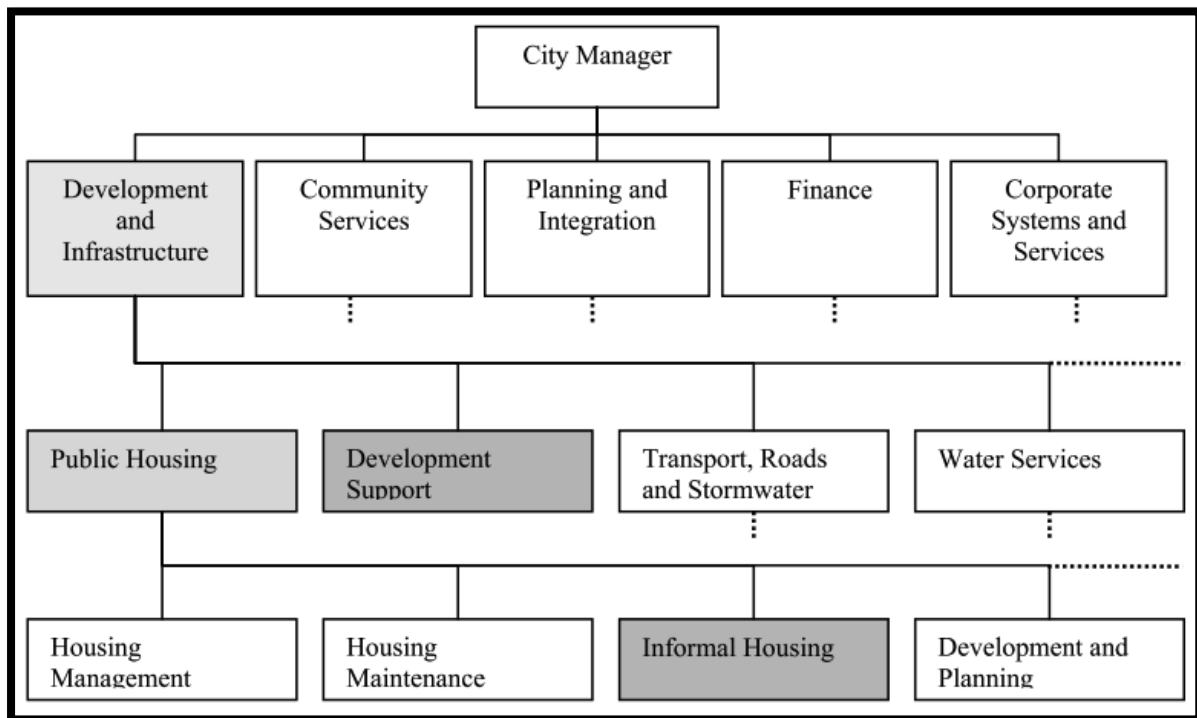


Figure 14: A partial organisational structure of CoCT’s engineering services and housing administration for informal settlements in 2004, after Graham (2005: 60).

Graham (2005: 89) noted that DS officials eventually implemented basic water, sanitation and refuse removal services to the majority of the City’s informal settlements after the then Executive Mayor Nomaindia Mfeketo had pledged to service all of them by the 30th of June 2004 in her 26 May 2004 budget speech. To ‘fast-track’ delivery so that all settlements would receive ‘the absolute minimum level’ by the Mayor’s deadline, DS’ small team of project managers and engineers seconded staff from other line departments in its Directorate (Graham, 2005: 89). Officials explained that the City’s operations was (and continues to be) divided amongst line departments that are responsible for tasks related to their division’s mission and technical expertise. For example, Transport, Roads and Stormwater (TRS) officials formulated the City’s criteria for new road construction in formal areas and informal settlements. In hindsight, officials recalled that staff from TRS, Water Services and Informal Housing had temporarily supported the ESIS initiative. In addition to the seconded staff, the City appointed external social facilitators ‘to negotiate service delivery with the communities’ and engineering consultants ‘to design the layout’ of settlement services (Graham, 2005: 88).

With the support of its temporary staff, DS provided 91% of the City's informal settlements with sanitation facilities, 95% with water supplies and 99% with refuse removal services by the Mayor's deadline (Graham, 2005: 89). Graham (2005: 89) noted that officials could not provide full coverage due to material shortages, inaccessibility issues⁸⁴; and 'community politics'. In spite of these problems, the DS official that managed the ESIS project called the City's implementation 'a total success' (Graham, 2005: 89). The then Mayor (as cited by Graham, 2005: 136) also assessed the servicing achievements as confirmation that political pressure works on municipal officials, as she noted to the media on 11 July 2004 that the programme's success 'proves that if you tell them to do it and don't take any excuses, it can be done'.

Media outlets such as the *Weekend Argus* (as cited by Graham, 2005: 89) largely lauded the ESIS effort as 'one of the fastest upgrades in the City's recent history'. The response from implementing junior officials, however, was more tepid than the ESIS implementation manager, the Mayor and journalists, for their reflections highlighted discord between 'politicians' and civil bureaucrats, as well as a number of programmatic concerns:

- Graham (2005: 135) detailed that the Mayor had made her budget speech announcement without consulting the officials who are responsible for implementing services, and had threatened to dismiss them if they did not meet her target date. The implementing officials had been unhappy with the Mayor's sudden announcement, as it negated the previous delivery schedules that they had negotiated with residents; and changed their mode of 'logical' planning from a prioritised list of settlements to a 'desperate servicing of all settlements to the absolute minimum level of service within the shortest possible time' (Graham, 2005: 135).
- An official implied that the primary purpose of the ESIS project was to enhance the profile of the figures heralding the initiative when he said, 'Politicians don't understand or want to hear that some of the settlements can't be serviced—as long as the numbers make them look good, they're happy' (Graham, 2005: 136).
- In reference to ESIS' statistical feats, an official said that it was largely 'window dressing', for they still had a 'considerable' amount of work if they aimed to incrementally improve and sustain informal settlement services (Graham, 2005: 136).

⁸⁴ Graham said accessible settlements are 'physically sparse enough to allow access to delivery vehicles'. Officials must also attain permission to access privately owned land.

Another official was especially concerned with the latter task, for he admitted that ‘what we’re doing here is not sustainable...and it’s going to come back to bite us’ (Graham, 2005: 136).

The junior officials’ programmatic concerns are significant to note, because the ESIS project figures mostly accounted for the quantity of emergency services provided from the perspective of senior officials. What about the services’ quality and residents’ satisfaction with the services they received?

Based upon the sanitation requests residents had made at Kosovo’s initial servicing consultation and what the City ultimately provided, Kosovo’s residents likely would not have applauded CoCT’s ESIS achievements. DS officials presided over their first ESIS meeting with Kosovo residents on 11 May 2004 (CoCT, 2004c). Regarding sanitation, residents asked that officials replace what they referred to as buckets (and what officials called container toilets) with full-flush facilities. According to the ESIS meeting minutes, DS officials had asked that four residents accompany them on a settlement tour to ‘promote understanding of the area’ for the emergency servicing intervention (CoCT, 2004c). Unsurprising to the officials, the tour indicated that the introduction of waterborne sewerage to Kosovo was considerably constrained by the settlement’s natural and built environment.

Kosovo (as well as the informal settlement featured in Chapter 6) is situated in an area of Cape Town commonly referred to as the Cape Flats. Most Capetonians think of the Cape Flats as a sandy expanse of flat land between two mountain ranges that non-white South Africans had been forced to relocate to during the apartheid era. Geologically, however, the Cape Flats extends beyond the City’s northern and eastern boundaries along the coasts of the Atlantic and Indian Oceans (see Figure 15). Adelana and Xu (2006: 265–266), characterised the Cape Flats geological region as low-laying land with ‘numerous’ sand dunes and *vleis* (wetlands). The Cape Flats also has a number of underground aquifers that are fairly close to the surface. Officials, for instance, noted that depressed areas in the Cape Flats are often completely submerged after heavy rainfall.

As noted earlier, Kosovo has a history of winter flooding due to its natural ground conditions. Installing waterborne sewerage would thus mean digging deep trenches into Kosovo’s sandy soils and high groundwater table. In addition to its challenging ground conditions, Kosovo’s dense structural layout requires relocating residents to install underground services between closely situated dwellings (Figure 16). In light of these natural

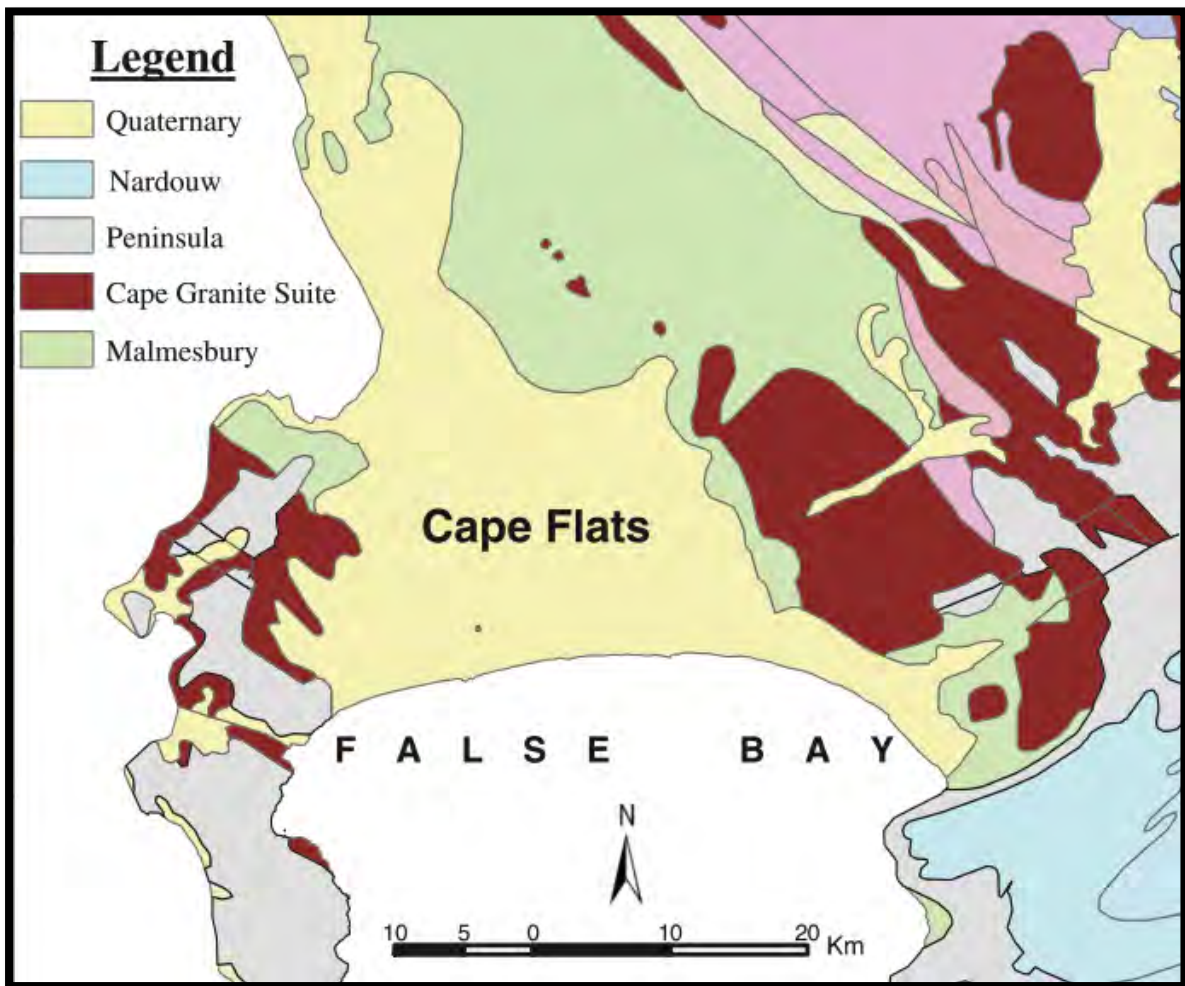


Figure 15: The Cape Flats geological region, which is approximately 630 square kilometres in area (Adelana and Xu, 2006: 266).



Figure 16: Kosovo informal settlement on a rainy day with Devil's Peak in the background (Taing, 13 June 2011). Officials have struggled to sewer Kosovo due to its structural density and unconventional town-planning layout.

and built environment challenges that precluded the immediate provision of waterborne sewerage to Kosovo, DS officials increased the number of communal container toilets in the settlement. A DS official explained in remembrance:

When we were looking at improving settlements the main problem was always density. The existing facilities we embarked on were the best we could provide.

Many residents nevertheless seemed to be disappointed with the City's 'best' effort, as they later made it clear to CoCT (2005j) officials that they did not 'want container toilets'. From my experience, informal settlement residents citywide share Kosovo residents' dissatisfaction with these un-sewered 'buckets', and have requested waterborne services per dwelling as their preferred alternative.

5.1.8 National Sanitation Strategy (2004)

Aside from residents' dissatisfaction, the provision of communal un-sewered toilets did not meet the national custodian's then interpretation of acceptable sanitation. In July 2004, DWAF (2004b: 1) published its *National Sanitation Strategy* to take into account 'recent developments' in the sector, for the purpose of supporting a 'coherent approach' to service delivery. DWAF noted CoCT's provision of container toilets in its *Strategy*. While DWAF (2004b: 49) acknowledged that CoCT struggled to 'find viable alternative solutions' for their 'very dense informal settlements on [hydro-geologically] difficult ground', it nevertheless referred to the container toilets as 'bucket latrines'⁸⁵ and said

Bucket latrines of all kinds are no longer acceptable as a sanitation option and must be urgently replaced by an alternative system.

Put simply, the container toilets provided in the ESIS initiative did not meet DWAF's standard of acceptable sanitation. Moreover, DWAF (2004b: 49) specified that communal un-sewered toilets should not be employed for more than a month in established settlements:

Emergency sanitations programmes should be limited to very short [term] interventions that last a few days to a few weeks. Long term informal settlements must not be treated as emergency situations for the purpose of this strategy but should be provided with viable and sustainable solutions. Solutions such as communal facilities and chemical toilets should not be used where the system is expected to have a duration of more than one month.

⁸⁵ A 'containerized system where faeces are deposited in an open container and are collected manually for disposal' (DWAF, 2004b: 49).

Based on DWAF's statements concerning communal un-sewered sanitation in long-established settlements, it is evident that the national custodian decried the quality of CoCT's informal settlement sanitation services in the same month that CoCT officials and the media celebrated ESIS' achievements. As alternatives to shared bucket latrines, DWAF (2004b: 49) inferred that on-site systems⁸⁶ (such as VIP latrines, composting toilets⁸⁷ or septic tanks⁸⁸); and waterborne sewerage are acceptable forms of sanitation. Of the two acceptable forms of sanitation, DWAF (2004b: 47, 49) clearly favoured the former, because the policymaker:

- Implied that 'ill-informed' officials and users oftentimes made 'wrong choices... due to the misconception that on site systems cannot be used in urban areas'; and
- Warned against installing sewerage if communities and municipalities cannot sustain the 'heavy investment' in terms of costs and skills.

To CoCT officials, however, DWAF's technological recommendations were not viable for informal settlements in Cape Town. CoCT officials generally complained that national policymakers' continual guidance concerning suitable on-site technologies in dense urban areas (DWAF, 2002b, 2002c, 2003, 2004b; RSA, 1996b) neither adequately:

- Engaged with residents' persistent demands that the City provide flush toilets; nor
- Addressed the flooding challenges that officials and residents faced in the Cape Flats.

Furthermore, despite DWAF's statement that sanitation is more than a toilet, it again overlooked the disposal of greywater in its 2004 *National Sanitation Strategy*. Greywater by far is the largest fraction of wastewater that emanates from informal settlements (Holden, 2010), with an average of 100 litres of greywater discarded into un-sewered municipal toilets, stormwater drains or urban waterways from every informal settlement household per day (Carden et al., 2008). Put simply, CoCT officials needed a means to drain all water from

⁸⁶ An on-site sanitation technology collects waste where it is deposited, whereas an off-site option conveys waste away for treatment and disposal.

⁸⁷ As the name suggests, the waste deposited into a composting toilet decomposes (with organic material such as wood) in the container that it is deposited in, and should eventually breakdown to become fertiliser. Urine diversion toilets are a popular form of composting toilet in South Africa (DWAF, 2002c: 5).

⁸⁸ Also known as a 'soakaway', a septic tank collects waste from a flush toilet in an underground chamber (DWAF, 2002c: 11). Most liquids drain away while solids settle in the tank. The solids reduce over time due to anaerobic digestion, and a tanker removes the digested sludge when the tank is full.

informal settlements. Residents' demands and officials' needs indicated that the City required sewers to rid low-lying informal settlements of stormwater and wastewater.

With regard to removing wastewater, conventional gravity or shallow sewerage satisfied the national government's standards of acceptable technologies (CSIR, 2005a; DPLG, 2005b: 20; DWAF, 2002c). According to the national government's technological research and development institution, shallow sewerage is basically a conventional full-bore gravity sewer with flattened gradients, smaller-diameter pipes and shallowly-laid sewers and manholes (CSIR, 2005b: 10–9). Given these attributes, shallow sewers are also commonly referred to as small-bore or simplified sewers (Taing, Armitage, et al., 2013). Technically, however, settled systems⁸⁹ also have shallow small-bore sewers (Mara, 1998). I henceforth distinguish between the two by referring to those with relaxed conventional specifications as simplified sewerage, and those with interceptor tanks as settled sewerage.

To CoCT officials, neither conventional nor simplified⁹⁰ waterborne sewerage seemed viable for informal settlements in the Cape Flats given the aforesaid challenges of attaining the necessary gradients for gravity-reliant systems between densely packed dwellings. Given the nature of CoCT's informal settlements situation, it seems that DWAF's advice did not address the City's needs, for the general recommendations were irrelevant or infeasible in light of the local context. Left again without practical guidance from national government, the City sought an alternative means to retrofit sewerage in the Cape Flats after the conclusion of the ESIS project. Kosovo seemed like an ideal place to trial such a system because it was 'one of the most densely populated informal settlements in the Cape Metropole' (CoCT, 2005k: 1), and—as a DS official noted—'if we could make it work in Kosovo it could work everywhere in city'.

5.2 Rudimentary services upgrade (2004-2008)

5.2.1 Project plan

In 2004, municipal policymakers decided that upgrading informal settlements would become DS's 'dominant function' (Graham, 2005: 61). Huchzermeyer et al. (2004: 57) explained that

⁸⁹ Settled sewers are essentially simplified conventional sewerage systems with on-site interceptor tanks. The tanks contain the majority of solids in wastewater before the waste's eventual conveyance to a treatment works (Mara, 1998). DWAF (2002c) referred to settled systems as solids-free sewerage.

⁹⁰ Though unknown to CoCT at the time, eThekweni Municipality had piloted simplified sewerage in two formal low-income neighbourhoods. The efforts largely failed due to a range of legal, technical, institutional and socio-political problems. See Eslick and Harrison (2004) and Taing et al. (2013) for further information.

CoCT's then Housing Department was 'not involved' because: informal settlement interventions tended to not access the national housing subsidy; and its officials were 'not very supportive' of upgrading since they preferred 'clear-cut projects with clear plans and beneficiaries'. DS officials, on the other hand, proved after ESIS that they could cope with 'messiness' of servicing informal settlements (Huchzermeyer et al., 2004: 57). They hence were responsible for incrementally improving Kosovo's roads, stormwater drainage, water, sanitation and refuse removal services according to the City's *Framework*, which Graham (2005: 89) noted was CoCT's 'only comprehensive strategy' for informal settlements.

DS officials first proposed their plans for Kosovo's integrated upgrade seven months after the settlement's sale to representatives of the TRS, Potable Water, Sewerage, Solid Waste, Disaster Services, Electricity and City Parks Departments (CoCT, 2004d). The minutes from this October 2004 gathering indicated that the present parties agreed with DS' proposed servicing plan, and agreed to have DS manage the in-situ upgrade. DS officials thereafter advertised a tender for construction services in Kosovo; procured the services of a social facilitator⁹¹, an engineering consultant and an urban designer; and applied for national funding via the City's Municipal Infrastructure Grant (MIG) unit. Following the phrasing used by the Constitutional Court and DoH, CoCT (2005k: 1) noted in its applications that it intended to provide 'rudimentary services' to Kosovo. The DS project manager tasked with Kosovo's upgrade ultimately filed three separate MIG applications for:

- **Roads & stormwater services:** Three kilometres of internal gravel access tracks (with five metre wide open stormwater drains) throughout the settlement; and a 360 metre tarred road with kerbs, 88 metres of underground stormwater drains and eight catch pits, for R1,057,730.30 (CoCT, 2005k: 14, 1);
- **Sanitation services:** 337 toilets (at 1 toilet for every 4 households); ten greywater disposal points 'to counteract the significant... pollution problem' in the settlement; 4,380 metres of 'buried gravity sewer pipes'; 400 metres of sewer rising mains; and three sewer pump stations, for R7,802,054.44 (CoCT, 2005l: 1–2); and
- **Water services:** 120 standpipes providing 'the mandatory 6 kilolitres per household per month at a rate of 10 litres per minute within 200m walking distance of any household'; 28 fire hydrants 'within 90m distance of any dwelling structure'; and 2,890 metres of underground pipes, for R1,644,910.30 (CoCT, 2005m: 1–2).

⁹¹ The private consultant who recorded the Kosovo ESIS meeting minutes was appointed.

Of the above-mentioned figures, MIG was to cover 80% of the upgrade’s capital costs, while CoCT (2005l: 2) contributed 20%. The City’s projected contribution thus satisfied DoH’s (2004b: 20) 10% financial requirement from local authorities in settlement upgrades. In addition to meeting DoH’s policy, CoCT (2005l: 5, 7–8) intended to: fulfil its *Free Basic Services* obligation by providing the planned services; and follow the national *Expanded Public Works Programme* guidelines by sourcing labour from ‘local community via the relevant community forums’.

The DS project manager anticipated that Kosovo’s rudimentary upgrade would be implemented over a two-year period, from August 2005 to July 2007 (Table 5). The construction contractor, however, would only complete the works in February 2009 due to a number of unanticipated problems that occurred during the project’s implementation. I detail the various socio-political, technical and institutional problems that collectively contributed to the 2.5-year construction delay next.

Table 5: Kosovo upgrade target dates (CoCT, 2005k: 22).

Item to track	Target (Day/month/year)
1. Design report approved	30/06/2005
2. Tenders awarded	30/07/2005
3. Contract signed	08/08/2005
4. Contract conditions met & contractor on-site	22/08/2005
5. Construction completion date	30/07/2006
6. Final payment (Retention payment is final)	30/07/2007

5.2.2 Implementation problems

5.2.2.1 Settlement representation dispute

The first problem that threatened to derail the project became evident in early 2005. On 24 February 2005, a delegation from Kosovo wanted to clarify if the upgrade project was ‘under the leadership’ of the local Ward or Proportional Councillor (CoCT, 2005b). Following the 1998 *Municipal Structures Act* conventions, a local Ward Councillor serves as the community representative in development projects. In contrast, a Proportional Councillor has no constituency, as they represent the people at large. In light of these statutory distinctions,

the Ward 33⁹² Councillor would have been the official political representative for the project. The aforementioned delegation, however, objected to the Ward 33 Councillor's participation, for they alleged that he used his position to personally benefit from their misfortunes (Beauclair, 2010: 7). These residents, as an alternative, adopted a Proportional Councillor to serve as their local Ward Councillor.

It is significant to note that not all of Kosovo opposed the Ward 33 Councillor, for he still had loyal supporters residing in the settlement. The 'political fight' between the two factions apparently escalated for several months, and erupted in May 2005 when rioters destroyed some of Kosovo's limited communal facilities (CoCT, 2005c). Finding it necessary to intervene, the DS project manager said that the 'political problem seemed to be resolved' after the factions agreed to keep the Ward Councillor as the official representative, provided that the project team⁹³ obtained 'political sanctioning' (endorsements) from both Councillors when making decisions (CoCT, 2005c). While the project team believed they had resolved the dispute, several Kosovo residents informed Beauclair (2010: 54) that their discontent with the Ward Councillor had motivated them to elect their own candidate in the next election. I re-visit their quest for representation in Section 5.2.2.6.

5.2.2.2 Alternative technology selection

The next obstacle the project team encountered was a financial and engineering conundrum. The City's two tenderers had estimated that the manual trenching of a conventional gravity sewer (excluding labour costs) would cost a minimum of R18 to R21 million (CoCT, 2005d). This projected range was much higher than the R7,802,054.44 that DS had requested for the sanitation upgrade (CoCT, 2005l: 2). Moreover, they would have to temporarily or permanently move 3,500 of Kosovo's 5,500 households to make space for three pump stations and the six to ten-metres of shoring⁹⁴ needed to support 'fairly deep' trenches of up to five-metres between shacks (CoCT, 2005d, 2006l). Displacing 64% of Kosovo's households was out of the question for the project team, because the point of implementing the in-situ upgrade was to avoid undesirable and time-consuming relocations as far as possible. Given the high costs of conventional systems and their desire to minimise relocations, the project team assessed unconventional sewer technologies that might be more

⁹² Kosovo was situated in Ward 33 along with the suburbs of West Philippi, Samora Machel and Weltevreden Valley (SAEP, 2009).

⁹³ This refers to the joint actions of the DS Department, the social facilitator and the engineering consultant.

⁹⁴ In general, the width for shoring is double the depth of a trench.

cost-effective and cause less disruptions. But what technology would suit Kosovo's natural and built environment? After reviewing the alternatives, the DS project manager recalled that the consultant pitched what he regarded as a 'foolproof' system for Kosovo: a vacuum sewer.

The first vacuum sewer was installed in the Netherlands in 1866 (Petrešin and Nekrep, 2008). Since then, vacuum systems have been widely applied in the commercial sector, such as in airplanes (US Patent, 1975), and over a thousand municipal developments around the globe (Little, 2004). In contrast to gravity-reliant systems, a vacuum sewer largely uses 'differential air pressure' to move waste (Van Vuuren and Van Dijk, 2011: 24). Like a conventional system, it initially drains waste away from toilets via gravity (Figure 17). Waste in a conventional sewer then is conveyed off-site by gravity or pumped to a treatment works. A vacuum sewer, on the other hand, stores it on-site in the sump of a collection chamber. The collection chamber contains a pneumatically activated sensor unit (Ashipala, 2011: 2–18) that profile, at a high velocity towards the vacuum station, and retained in a collection vessel before being conveyed to a treatment facility via a tanker or sewer collection main (Ashipala, 2011: 2–19; EPA, 1991: 99). The pressure in the airtight network is generated from pumps located at the vacuum station (Little, 2004: 140).

In general, wastewater engineers regard vacuum sewers as a 'last resort' for sewerage difficult terrains (Van Vuuren and Van Dijk, 2011: 24)—likely due to their high capital and operations costs. Butler and Davies (2004: 325), for example, noted when comparing vacuum to conventional systems that the former 'consist of small, shallow pipes with relatively high running costs', while the latter have 'large, deep pipes and low running costs'.

But—as Consterdine (cited by Butler and Davies, 2004: 325) noted—vacuum sewers have 'cost advantages' over conventional gravity in the 'right circumstances'. For instance, vacuum sewers might be more cost-effective when hard rock, flat terrain, unstable soils or high water tables constrict construction, as pipes are generally laid at a shallow average depth of 1.5-metres (EPA, 1991: 93; Little, 2004: 138). A conventional sewer in such ground conditions would require 'expensive and difficult to dig deep trenches', as well as a number of pumping stations (Little, 2004: 138). The use of vacuum sewers in these scenarios could thus translate into considerable reductions in excavation and machinery costs. Vacuum systems might also be more sensible than gravity sewers where 'potable water is in short supply', as the latter requires regular flushing with water to reduce the risk of sewer blockages (Little, 2004: 138). A vacuum system, in contrast, uses air pressure to scour its

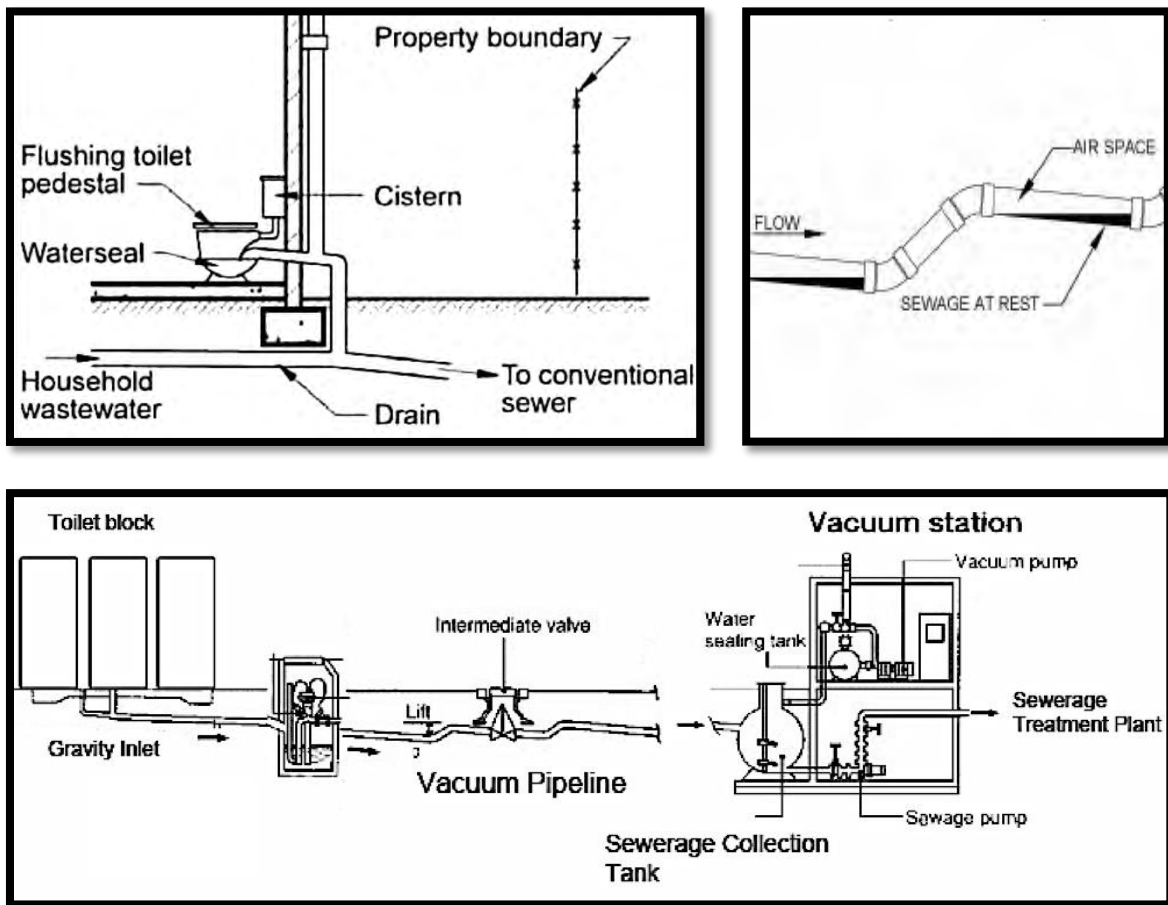


Figure 17: Counter-clockwise from the top-left is a profile schematic of: a conventional sewerage system (CSIR, 2005a); Kosovo’s vacuum system (Ashipala and Cornelius, 2010); and sewage at rest in a saw tooth vacuum sewer collection main (EPA, 1991).

sewers, and the speed at which wastewater travels should minimise the risk of blockages in the airtight network (Ashipala and Cornelius, 2010: 3). Vacuum pipes also have ‘built-in seals’ that reduce the risk of leakages (Elawwad et al., 2014: 2).

Notwithstanding these advantages, Little (2004: 138) highlighted that vacuum sewers require reliable electricity supplies. Little (2004: 139) further warned that they are relatively ‘unknown to sewerage practitioners in Southern Africa’, and that this limited knowledge might translate into: sub-standard contract specifications; ‘inferior’ construction; and the need for outsourcing O&M until operators developed the capacity to manage the system. In remembrance, the DS project manager admitted that a vacuum system was ‘unknown to all of us’ at the City prior to the engineering consultant’s suggestion. They, however, assessed the merits of the system ‘from an engineering perspective’ because

We were under tremendous pressure to provide services, as it was clear that you couldn’t provide enough houses for the backlog... There was pressure

particularly in Kosovo, because there was always a problem there politically. It was dirty, and it had no drainage and no access.

In light of Kosovo's natural and built environment challenges, DS officials concluded that a vacuum system was the only feasible way they could retrofit a sewer in the settlement. DS officials now had to convince their counterparts in Water Services, as they would have to manage the system.

5.2.2.3 Interdepartmental buy-in

On 7 June 2005, a senior DS official contacted a Water Services official to discuss the challenge of sewerage Kosovo (CoCT, 2005d). After explaining the aforesaid problems with a conventional sewer in the dense settlement, the DS official suggested that they install a vacuum sewer to:

- Provide 520 toilets in 37 clusters throughout the settlement, which would yield 183 more toilets than a conventional sewer.
- Relocate fewer residents, as a vacuum sewer only required one pump station and shallower trenches (CoCT, 2005d).

With regard to O&M, the DS official added that:

- The primary maintenance item is the collection chamber, as items larger than 60mm might collect in the sump; and
- The only major replacement cost was a valve rubber diaphragm that had to be changed every five years (CoCT, 2005d).

The Water Services official replied the next day and agreed that they should give the vacuum system a try in Kosovo, as the informal settlement 'will give it a good test' and an 'opportunity to prove itself' in the Cape Flats (CoCT, 2005d). Additionally, given Kosovo's population and structural density, he reasoned that, 'If it can work there, it will work anywhere', before significantly stating that

The maintenance of the system will probably come from our budget, so we are obviously not keen on installing something that will be a burden on our maintenance budget (CoCT, 2005d).

The DS official's e-mail seemed to be the first documented attempt of getting 'buy-in' (agreement or acceptance) from Water Services on implementing a vacuum system in Kosovo. The Water Services official's reply suggests that the two department representatives agreed upon trialling a vacuum sewer in Kosovo as part of the rudimentary upgrade project. The response also indicates the latter's tacit understanding of how infrastructure delivery in CoCT occurs in a pipeline: DS first would plan and install new sewer infrastructure with Water Services' buy-in, and Water Services would undertake responsibility for the new system's maintenance after its installation. Graham (2005: 65–66) also noted upon this division of responsibilities in the ESIS project when he observed that capital installations generally did not have allotted operating budgets since O&M was 'expected to be covered by the line departments of the City of Cape Town from their own budgets'.

The DS and Water Services officials' agreement to install a vacuum sewer in Kosovo occurred during a period of massive local government transformation that resulted in the following substantial changes to the organisation's structure and leadership. Between the 2004/2005 and 2005/2006 financial years⁹⁵, CoCT (2005a, 2006a) subdivided its six directorates into nine. Development and Infrastructure's engineering responsibilities were subsequently divided between three directorates: (a) Services and Infrastructure (Electricity, Water and Solid Waste); (b) Transport, Roads and Planning; and (c) Operations (Human Settlement Services and Special Programmes) (CoCT, 2006a). The DS Department was situated in the Operations Directorate after the restructuring. This meant that DS officials—who had previously been a part of centralised engineering unit when the Kosovo project was initiated—were separated from their Roads, Stormwater and Water Services colleagues.

Fortunately, most of DS' leadership stayed relatively the same after the restructuring. Water Services, however, experienced drastic staff turnover, which was caused, in part, by demographic transformation. For example, a senior Water Services appointee joined the City in September 2005. The change in Water Services' leadership meant that DS officials had to gain support again for Kosovo's vacuum sewer with the line department.

On 12 October 2005, a senior DS official e-mailed Water Services' new leadership to propose: an 'integrated' approach to Kosovo's upgrade, and that DS manage the project to avoid the 'risk of duplication' in service delivery (CoCT, 2005e). Another senior DS official sent an e-mail the next day to the aforementioned parties and recounted the following events:

⁹⁵ CoCT's financial year spans the 1st of July to the 30th of June.

- Residents had barred the municipal container toilets contractor from Kosovo, on the grounds of their not wanting un-sewered services in the settlement. Kosovo then had 360 container toilets and officials wanted to double that amount so that all residents could have access to services. Residents, however, reportedly prevented the addition of container toilets because they rejected them and demanded flush toilets instead. CoCT officials ameliorated the situation by informing residents of the ‘planned award of a tender’ for sewerage Kosovo. In light of the impending works, residents ‘permitted’ the installation of a further 325 container toilets as temporary services and ‘now eagerly awaited’ flush toilets.
- With regard to the sewerage tender, DS advertised Tender Q05/29 from 22 April to 13 May 2005, as a multidisciplinary contract to address Kosovo’s roads, stormwater, water supply and sanitation needs. The DS official said they had initially requested for quotations for a gravity sewer, but a ‘joint decision was made with Water Services’ to ‘recall’ the original tender and include a vacuum sewer ‘as an option’. DS advertised Tender Q05/68 on 26 August 2005 to request quotations for gravity and vacuum sewers in Kosovo (CoCT, 2005f).

The senior DS official noted that those involved in decision-making had included a senior Water Services planning official that ‘has left Council service’ and hence requested that the Department’s new management ‘advise as to who your representative is to be on the Bid Evaluation Committee’ (CoCT, 2005f). The e-mails from the senior DS officials essentially briefed Water Services’ new leadership about what had been done to date in Kosovo. They were also evidently trying to gain or sustain buy-in for the upgrade project from other line departments, as a Housing official (who had been copied to the e-mail) said he supported the ‘way forward’ on 17 October 2005 (CoCT, 2005f). That same day, a senior Water Services official replied to say that he, too, ‘subscribe[d] to the notion of an integrated and coordinated approach in dealing with service delivery’, and he would ‘link’ their ‘interim’ interventions with ‘the long term process’ that DS commenced to ensure that they ‘don’t undermine what is to be done in the long term’ (CoCT, 2005f). The Water Services official added that his Department and DS’

roles and responsibilities are patently clear, I am in charge of water services (water and sanitation) delivery in CoCT, including informal settlements. You are in charge of coordinated interventions in informal settlements. You may

want to review your structure but I think the [roles and responsibilities] are clear enough (CoCT, 2005f).

To support the senior Water Services official's position, the municipal *Water By-Law*—which the Council would approve in seven months' time—explicitly stated that he was 'in charge' of the City's water and sanitation infrastructure (CoCT, 2006x: 1497). Perhaps anticipating problems after reading the Water Services official's response, the DS official who was managing the Kosovo upgrade joined the aforementioned e-mail thread on 17 October 2005, and noted that the sewer's 'O&M needs to be carefully weighed' as South Africa's first vacuum system (CoCT, 2005f). The DS project manager later sent an e-mail that afternoon, requesting that senior Water Services and R&S officials 'nominate representatives' for the Kosovo Bid Evaluation Committee, which would select the construction contractor for the vacuum sewer installation (CoCT, 2005g). Two meetings took place thereafter at the end of the October 2005 and in the beginning of November with representatives from DS, Housing, R&S and Water Services present (CoCT, 2005n). On 18 November 2005, Kosovo's Bid Evaluation Committee submitted their selection to the City's Supply Chain Management (SCM) department (CoCT, 2005o). The City Manager approved the a R22,900,000 contract for constructing Kosovo's roads, stormwater, sanitation and water infrastructure on 2 December 2005, and allowed SCM to formally appoint the nominated contractor (CoCT, 2005i).

5.2.2.4 Tender selection appeal

The next project snag caused a two-month delay. On 13 December 2005, SCM informed the two Kosovo upgrade bidders of the City's decision (CoCT, 2005p). The unsuccessful bidder appealed the decision on the grounds that: the other bidder submitted their quote for the vacuum system after the official closing date and was hence 'nonresponsive'; and they had the lower bid of the two parties (CoCT, 2005q). CoCT's Legal and Administration Department, as the arbitrator, had to either dismiss the unsuccessful bidder's appeal or accept their argument. The DS project manager e-mailed Legal and Administration's Policy and Statutory Compliance team on 20 December 2005 to refute the nonresponsive charge, and explain the reasons for selecting the higher of the two bids (CoCT, 2005h). The arbitrator ultimately dismissed the appeal on 16 February 2006 (CoCT, 2006s), and DS formally appointed the Kosovo upgrade construction contractor on 23 February 2006 (CoCT, 2006p).

5.2.2.5 O&M preparation

While the City's lawyers arbitrated the awarding of Tender Q05/68, the DS project manager prepared 'special leave' and financial support applications for himself and two Water Services O&M officials (who had 'extensive experience' in informal settlements) to 'inspect' a vacuum sewer installation in Botswana⁹⁶ (CoCT, 2006q). The project manager stated that having 'a first-hand look' would help DS install a system that met 'acceptable standards' and 'facilitate' Water Services' O&M planning (CoCT, 2006q). The then City Manager and DS' Executive Director approved of the DS official's application, with the latter noting on 23 February that his approval re-affirmed the system's 'viability' (CoCT, 2006r). The Water Services' Executive Director, in contrast, rejected his staff's request that same day, on the grounds that he did 'not recommend' the vacuum sewer because

There are numerous systems in place in S.A. that are appropriate for our environment.

CoCT's most senior Water Services official notably made the above objection to a vacuum sewer on the same day that DS appointed the Kosovo construction contractor. Despite Water Services' objections, plans for the vacuum sewer nevertheless went forward, because the City could not readily abandon the project after it had informed residents of the forthcoming upgrade and entered into a legally binding contract.

Regardless of the senior official's dissent, the DS project manager said that he 'needed' someone in Water Services to 'drive' the vacuum sewer's O&M after handover. He subsequently continued to involve various personnel by:

- Sharing his notes from the Botswana trip and requesting that Water Services officials meet with the vacuum sewer manufacturer on 17 March 2006 (CoCT, 2006j); and
- Asking his Water Services counterparts, 'with respect to some of the special and/or imported items, how many extra items should be purchased for...maintenance purposes?' on 22 November 2006 (CoCT, 2006i).

The DS project manager, however, remarked that Water Services was 'reluctant' to engage in Kosovo's upgrade. For example, no one attended the meetings he organised so he 'kept persisting until people felt guilty' and joined his planning sessions. In spite of his

⁹⁶ In 2005, the only vacuum sewers in operation on the African continent serviced rural areas in Botswana and Namibia on a household basis (Taing, Armitage, et al., 2013).

efforts, two Water Services officials recalled that their managers had advised them to stay peripherally involved and not prepare a plan or allocate resources for the vacuum sewer's O&M until it was commissioned. Participation beyond that was futile, as their managers had made it very clear that they did not support the vacuum sewer, so neither could they.

5.2.2.6 Settlement disputes over representation & jobs

The next problem the project team dealt with related again to dissatisfaction that some Kosovo residents had with their official community representation. Beauclair (2010: 54) noted that the discontent (discussed in Section 5.2.2.1) prompted 'a prominent Kosovo man' to seek the ANC's Ward 33 party nomination for the upcoming local government elections. The ANC, however, could not nominate the Kosovo candidate because he had not been a party member, as the party's rules required, for more than twelve months (Beauclair, 2010: 54). The Kosovo resident thus decided to run as the Independent Democrats' candidate against the ANC's Ward 33 nominee from Samora Machel. Beauclair (2010: 54) reported that the Independent Democrats candidate 'was heavily supported by Kosovo residents', with many making posters and T-shirts to advertise his candidacy. One resident explained to Beauclair (2010: 54) that she had rallied behind him on the principle that 'only someone from Kosovo could truly understand their hardships and do something to remedy them'.

Despite their efforts, the Kosovo candidate ultimately lost to the ANC candidate, who carried the rest of Ward 33 to win the local election that took place on 1 March 2006. Supporters of the Kosovo candidate, however, reportedly did not want the newly-elected Ward Councillor to make decisions on their behalf, so they again asked their preferred candidate to act as their representative (referred to hereafter as the 'Kosovo Councillor'); held independent but 'unofficial community meetings'; and contested the Ward 33 Councillor's appointment (Beauclair, 2010: 55). Their protest included a formal complaint addressed to the new Executive Mayor.

While the ANC won Ward 33, its main opposition led a multi-party alliance that enabled the DA to take control of local government. The DA's leader (Helen Zille) thereafter became CoCT's Mayor on 15 March 2006. On 26 March 2006, the Mayor received a 'formal complaint about a ward councillor from members of the community of Kosovo' as part of an organised 'protest march' (CoCT, 2006k). A media report indicates that over 250 people, who were led by Kosovo's Councillor, contested the Ward 33 Councillor's appointment that day (Cape Argus, 2006). In response to these protests, the *Cape Argus* (2006) reported that

the ANC's Provincial Chairman said that the Ward 33 Councillor would finish his term 'no matter what'; accused the Kosovo Councillor of being a DA member; and blamed him—as well as the media—for attempting to 'destroy the ANC'.

The representation dispute in Kosovo turned violent on 6 April 2006, leaving four people 'seriously injured', two dead and twelve shacks burned to the ground (news24, 2006). The *Weekend Argus* (2006) reported that the violence erupted after some residents had attacked six workers who were hired by the City to collect refuse in the informal settlement as part of a job creation programme. These residents claimed that the Ward Councillor had 'imported' the workers from neighbouring Samora Machel, and demanded that only Kosovo residents receive jobs in the informal settlement (Weekend Argus, 2006). The police eventually arrested four Kosovo residents after charges had been laid against them (news24, 2006). Upset by the alleged patronage politics and the arrests, approximately 500 residents stormed the local station and demanded the release of those arrested (Weekend Argus, 2006). Officers apparently used teargas and rubber bullets to disperse the crowd, which had been 'armed with sticks' (Weekend Argus, 2006). The Ward 33 Councillor then claimed that the protestors regrouped that evening and 'went door-to-door, attacking ANC members and burning shacks' (news24, 2006).

One of Beauclair's informants remembered the aforementioned event differently, for she attributed the violent attacks and arson to the two factions that formed in Kosovo after the elections: those who supported the Ward Councillor and those who did not. A staunch critic of the then Ward Councillor and a leader of the opposing faction, she related the events of that evening from the opposition's viewpoint:

As Kosovo community we made a decision that we don't need [the Ward Councillor] in Kosovo. We hold our meetings excluding him. There are a few people in Kosovo who favoured him. We fought with these people and vandalized their shacks. We were taken to Nyanga police station and arrested... [Then] the councillor started employing his favourites and we chased them and beat them in Kosovo... Because we vandalized their shacks they burned Kosovo (Beauclair, 2010: 55).

In other words, she admitted that the Ward Councillor's opponents resorted to violence against his supporters, but asserted that his supporters, who had been incited by the Ward Councillor, committed arson. Beauclair (2010: 56) observed that her informant did not root Kosovo's in-fighting in party politics, but to the opposing faction's 'desire to have a representative who was a resident of Kosovo and could "feel their pain"'. Reflecting upon

their position and actions, Beauclair argued that understanding the Kosovo dispute simplistically as a party struggle misrepresented the opposing faction's objections with community representation in local government. While Beauclair presented legitimate concerns with political representation in the City, she did not consider the ulterior motives her informants might have had in rejecting the Ward Councillor's alleged practise of patronage. The project e-mails and minutes from meetings held after the 6 April riots, however, suggest that the opposing faction's leaders contested his involvement so they could personally benefit from the limited job opportunities created by the upgrade project.

Unsurprisingly, the Kosovo project team was concerned about the post-riot finger pointing between the two factions. Minutes from a closed emergency meeting held on Friday, 7 April 2006 indicated that the project team and the construction contractor understood that the then disagreement in Kosovo largely revolved around jobs, and that it had to be resolved prior to the commencement of civil works the following Tuesday (CoCT, 2006w). The 23 February 2006 contract between the City and the construction contractor stipulated that the contract was valid for 50 weeks of work, with the site handover to occur on 11 April 2006, and construction to take place from then until 24 April 2007 (CoCT, 2006w). The April 2007 construction completion date notably is nine months after the project team's original projection (see Section 5.2). This means that the aforementioned problems with negotiating acceptable representation for residents; selecting and attaining buy-in for a vacuum sewer; and dismissing the tender appeal had already resulted in a nine-month delay. Wanting to pursue their construction programme without further delay, the project team agreed to 'help resolve the problem' of favouritism by appointing a project Community Liaison Officer⁹⁷ (CLO) from each faction (CoCT, 2006n).

Yet, bringing the two opposing factions together would prove to be far more difficult than the project team anticipated. As Beauclair (2010: 56) reported, the faction that opposed the Ward Councillor refused to compromise, and claimed that they 'did not want development if it was just going to promote the ward councillor's interests'. Put differently, the opposing faction—which notably, was a vocal minority in Kosovo and by no means represented all of the viewpoints in the settlement—refused upgrading Kosovo's infrastructure due to the Ward Councillor's involvement.

⁹⁷ A Community Liaison Officer is a resident who is subcontracted via a contractor to act as an intermediary between the City, a contractor and informal settlement residents in a municipal project on a day-to-day basis. A CLO's primary functions in a servicing project are to keep residents updated with the contractor's progress and negotiate relocations if necessary. A CLO's contract is based on the duration of construction.

It was evident to the involved officials that the opposing faction's refusal to collaborate with the Ward Councillor was actually a rejection of the City's official participatory process (CoCT, 2006b). DS Officials, however, found it difficult to acquiesce to the opposing faction's demands—partly because:

- The City's use of a Ward Councillor as a community representative is informed by national legislation (RSA, 1998a) and supported in national policy (DoH, 2004b);
- It was practical to involve the Ward Councillor in the project because they were engineers with limited training in community engagement, and were overwhelmed with the responsibility of servicing hundreds of other informal settlements; and
- The behaviour of the opposing faction did not fit their idea of 'proper citizens' (Watson, 2003: 395) who abided by rules and participated in a democratic process by working towards consensus for the sake of development.

As an example of the latter point, a CoCT (2006e) official said in a private exchange with the social facilitator that

A real change in the attitude and behaviour of especially the [opposition] leaders is needed. It is imperative that they put their differences with [the Ward Councillor] aside and accept him as the elected Ward Councillor. This change needs to be genuine—for example, they cannot keep quiet or pretend to be supportive in the open, but undermine the project behind the scenes (just because they do not want [him] or his supporters involved in the project).

While the project team did not agree with the opposing faction's behaviour, they nevertheless tried to accommodate them by setting up, with the Ward Councillor's assistance, a Project Steering Committee (PSC)⁹⁸ as an alternative forum whereby elected representatives from Kosovo could help plan the upgrade's implementation (CoCT, 2006b). In addition to the PSC, the Ward Councillor had reportedly said that he would ask the Kosovo Councillor to collaborate on the project (CoCT, 2006b).

These attempts to broker compromise with the opposing faction, however, seemingly did not work, leaving the social facilitator especially frustrated with the conduct of representatives from both factions. For instance, on 20 May 2006, she recounted that she asked that the 'broader community... accept the results of the elections', by recognising the

⁹⁸ A PSC is a group of community representatives that are 'elected by stakeholders' to coordinate and facilitate the a project's 'rollout' (CoCT, 2013f: 4).

Ward 33 Councillor at a meeting attended by representatives of the two factions (CoCT, 2006o). She then had the Ward Councillor introduce himself and the 15-person PSC. A member of the opposing faction argued, however, that the PSC did ‘not represent’ the opposition’s interests because it disproportionately comprised of people who supported the Ward Councillor (CoCT, 2006o). The project team thereafter suggested conducting another election, which the Ward Councillor and the PSC protested by leaving the meeting.

Exasperated with both factions’ conduct, the social facilitator said she chastised the opposing faction for their ‘mistakes’ and later ‘condemned’ the Ward Councillor and the PSC for walking out of the previous meeting (CoCT, 2006o, 2006v). She also stressed to both parties that the City sought to develop Kosovo, but she would recommend the project’s cancellation if the two factions did not establish a PSC (and by extension, a working relationship) that was to acceptable both parties (CoCT, 2006o, 2006v). Her statements suggest that she was educating the factions on how to be proper citizens who jointly worked towards consensus. Her lessons (and threat) nonetheless made little difference, as the two parties continued to not collaborate, with the faction’s joint meetings either continuing to end prematurely or not commencing at all due to disputes over the venues selected and the way that meetings were announced (CoCT, 2006d, 2006l, 2006u).

Aside from delaying service delivery and frustrating the project team, the conflict between the two factions had dire financial consequences for the City. These consequences, in turn, led to internal discussions about cancelling the project due to growing concerns of wasting public funds. On 26 May 2006, the DS project manager e-mailed his seniors to discuss this problem (CoCT, 2006c). He admitted in the communication that they had struggled with facilitation in Kosovo ‘from an early stage’, but he thought they had resolved the ‘problems with community leadership’ and ‘councillor support’ (see Section 5.2.2.1). But shortly after the Ward 33 Councillor won the 1 March 2006 election ‘it became apparent that the new Councillor ha[d] very strong opposition from inside Kosovo’ (CoCT, 2006c). Though CoCT (2006c) tried to set-up a participatory process and representative forum that was ‘acceptable’ to all parties, the project manager conceded that the opposing faction refused to let the Ward Councillor have ‘anything to do with the project’, on the grounds that only people from Kosovo must benefit from the project (e.g. employment). If this is not possible [then] they would rather see the project cancelled.

The project manager reported that the social facilitator had advised CoCT (2006c) to terminate the contract, because the political problems in Kosovo were ‘too deep-rooted’ to reconcile. The official, however, made it clear to his senior that

even if we terminate the contract, the problem still needs to be resolved as the community is in dire need of improved services.

In other words, regardless of the extant conflicts, the City still had to service Kosovo. Moreover, he stated that

most of the residents want the project to proceed and that it is a smaller group of individuals fighting for their own personal interests... The fighting between the groups seems very irrational and certainly not in the residents’ interest (CoCT, 2006c).

He hence stated that the project team should try again to ameliorate the unrest in Kosovo—despite the amount of money wasted. At the time, the project manager estimated that the City had incurred R120,000 of ‘fruitless expenditure’ due to on-the-ground delays, and estimated a further R100,000 if the conflicts were not resolved within two months (CoCT, 2006c). Moreover, he noted that CoCT (2006c) officials and consultants had invested a great deal of time and energy into the upgrade project, which ‘would be a pity and big waste of resources if the project is now terminated’. In light of CoCT’s (2006c) above-mentioned problems, obligations and expenditure, the project manager proposed that:

- The social facilitator continue to ‘meet with individual leaders who seem to have the strongest influence over their followers’;
- The project team ‘negotiate with the engineering consultants and contractor with the view to suspend the works for a few more months to allow more time to resolve the problem’; and
- They report the ‘fruitless expenditure’ to the appropriate authorities and try to contain it as much as possible.

He closed the 26 May e-mail by advising that ‘the contract should be terminated’ if they failed to reach a ‘resolution’ by the end of July (CoCT, 2006c). The project documentation from June and July 2006 indicates that the imminent cancellation facilitated some progress, with the warring factions and project team commencing negotiations over

labour appointment processes. Furthermore, officials seemed reluctant to cancel the upgrade, for they asked the Mayor to mediate the conflict on their behalf. The project team shared the following concerns at the Mayor's 28 July 2006 briefing:

- Meetings were continually 'disrupted' by 'infighting';
- The PSC was 'reluctant to make decisions' on behalf of Kosovo residents, as they claimed they needed to 'refer issues to the community'; and often did not 'adhere to decisions made by the Committee' after their faction or community consultations;
- The opposing faction's PSC members, who had recently joined the DA: (a) continued to 'distrust' the ANC Ward Councillor's involvement; (b) refused to meet at venues outside of Kosovo because they did not view the informal settlement as being a 'part of' Ward 33; and (c) questioned the consultants' technical decisions.
- The selection of the CLOs had become 'politicised' because the opposing faction's leader had allegedly threatened 'more troubles for the project' if he was not satisfied with the appointments (CoCT, 2006l).

After summarising their concerns, the project team requested that the Mayor convene a meeting with the PSC and the faction's leaders to ask that they respectfully put aside their differences and definitively confirm project details such as meeting venues and labour appointment processes (CoCT, 2006l). In light of the implementing officials' concerns, the Mayor chaired a meeting with the PSC, local leaders and project team on 5 August 2006, and reportedly emphasised that:

- The leaders 'need[ed] to rise above their personal egos for the benefit of the greater community';
- The City needed to implement 'fair and transparent processes, especially around the employment of people'; and
- Only residents of Kosovo would be employed for the project, regardless of their political affiliations (CoCT, 2006m).

After explaining the City's aforesaid position and principles, she conveyed that:

- Announcements of ‘project-related community meetings’ over loudspeakers would be made by two PSC members representing both factions in a Council vehicle; and
- Concerning the CLO shortlisting⁹⁹, those present could either elect to: (a) have independent auditors collect and shortlist candidates; or (b) continue with the process they had previously agreed upon, whereby the PSC would compile a list of applicants, and help the contractor with shortlisting. The construction contractor would ultimately appoint the CLOS, and the project team and Councillors served as observers in both processes. Of the two options, the parties agreed that an independent auditor was not necessary (CoCT, 2006m).

The Mayor’s interest in the Kosovo project seemed to broker peace between the Councillor’s supporters and opponents. The project team, no longer focused on fostering goodwill between the two factions, looked forward to finally commencing construction in Kosovo after an additional four-month delay. But as the project went forward, the settlement conflict now shifted from contestation over representation to labour appointments in an area with high unemployment rates.

On 17 August 2006, the construction contractor notified (CoCT, 2006f) to report that only three shortlisted applicants had suitable ‘qualifications and experience’ for the two CLO positions. After one withdrew her application because she attained full-time employment elsewhere, they announced the selection of the remaining applicants (the Kosovo Councillor and a female resident) the following day at a PSC meeting (CoCT, 2006f). The DS project manager said that the meeting was ‘disrupted’ following the announcement after a PSC member from the opposing faction immediately contested the appointment of the latter, on the grounds that she did not reside in Kosovo (CoCT, 2006g). Attempts by the project team and the Kosovo Councillor to explain that the shortlisted candidates’ addresses had been checked and verified in a municipal database and by the PSC at the 5 August meeting with the Mayor ‘were shouted down’ (CoCT, 2006g). Unable to ‘stop the chaos’, the project team ended the meeting, for ‘It was clear that no rational discussion was possible’ (CoCT, 2006g).

At that point, DS estimated that CoCT (2006h) had spent R1.6 million on Kosovo’s upgrade. This total excluded the ‘indirect costs from officials’; and an additional R1.1 million in ‘fruitless expenditure’ that the City had yet to cover: the construction contractor’s holding

⁹⁹ Shortlisting meant verifying that an applicant resided in Kosovo.

costs and material price increases; and the engineering consultant's site supervision costs. In reflection, the DS project manager said that they had

experienced many changes in the community support with very little consideration for the abortive costs incurred by the City (CoCT, 2006h).

Ultimately, the project team negotiated the appointment of the construction contractor's selected candidates, and building finally commenced in mid-September. Concerns about the CLO appointments, however, again arose a year later. Beauclair (2010: 56–58) recounted that in late 2007, the vocal PSC member that had previously contested the construction contractor's appointments led an effort to appoint new CLOs, on the grounds that jobs should be rotated amongst Kosovo residents. Coincidentally, the vocal PSC member was one of the two community-elected CLOs. The community-elected CLOs commenced work in January 2008, but Beauclair (2010: 57) noted that they seemed to have been working without contracts. Unsurprisingly, the contracted CLOs objected. Municipal officials again intervened and agreed to hire the new CLOs in light of the broader community's support (Beauclair, 2010: 58). This consequently led to the Kosovo Councillor filing a Commission for Conciliation, Mediation and Arbitration (CCMA)¹⁰⁰ complaint because he was unfairly dismissed. The CCMA decided in the Kosovo Councillor's favour, so he and the other dismissed CLO received R32,000 each as settlements (Beauclair, 2010: 58).

Construction was disrupted during and after the latest CLO quarrel. While the construction contractor said they struggled with appointing manual labourers, relocating residents, and working through protests unrelated to their project¹⁰¹, they stated that the CLO disagreement was the most disruptive (Taing, Armitage, et al., 2013). For example, the newly-appointed CLOs alleged that the dismissed Kosovo Councillor convinced residents to refuse to relocate for the new works, which eventually necessitated the re-design of the system (Beauclair, 2010: 58). The project team did re-design the system, though the DS project manager explained that this was caused, in part, to more residents moving to Kosovo¹⁰². Nevertheless, CoCT officials, too, largely attributed the additional 15-month construction delay to prolonged settlement disputes.

¹⁰⁰ An independent labour dispute body established by the *Labour Relations Act* (RSA, 1995).

¹⁰¹ For example, Kosovo residents, who were 'desperate' for jobs appointments with the Solid Waste Department, reportedly refused entry to any officials and stoned contractors in August 2007 (IOL, 2007).

¹⁰² For instance, the DS project manager explained that the access tracks could not be built as planned after new residents built their homes in previously vacant spaces.

5.2.2.7 Further restructuring & new management

While leaders in Kosovo clashed over representation and jobs, CoCT's political leaders and senior officials drastically altered the City's institutional structure. Shortly after the DA-led multi-party government took control of the City, CoCT (2006a: 47) further subdivided its organisation from nine to eleven Directorates. The City's town engineering functions were divided in June 2006 between four bodies:

- Utilities Services (comprising of Water and Sanitation; Solid Waste; and Electricity);
- Transport, Roads and Stormwater;
- Integrated Human Settlements (Housing) Services; and
- Service Delivery Integration (Figure 18).

The DS Department—which had been separated from most town engineering services in the last restructuring (see Section 5.2.2.3)—was now also situated apart from Housing Services in the Service Delivery Integration Directorate. Eight months after the establishment of its new Directorate, DS' operations would again be interrupted after the City completely disbanded the Department in March 2007 and dispersed DS officials between the FIFA Technical Team and Housing's Informal Settlements Department. The DS project manager notably joined his senior managers to plan new infrastructure for the impending World Cup. A Housing official, who had previously worked on Kosovo's upgrade as a junior official, explained that he subsequently 'inherited' the project. In addition to project management, the Housing project manager was responsible for community engagement because the social facilitator's contract ended in February 2007 (CoCT, 2010c). Officials noted, in hindsight,

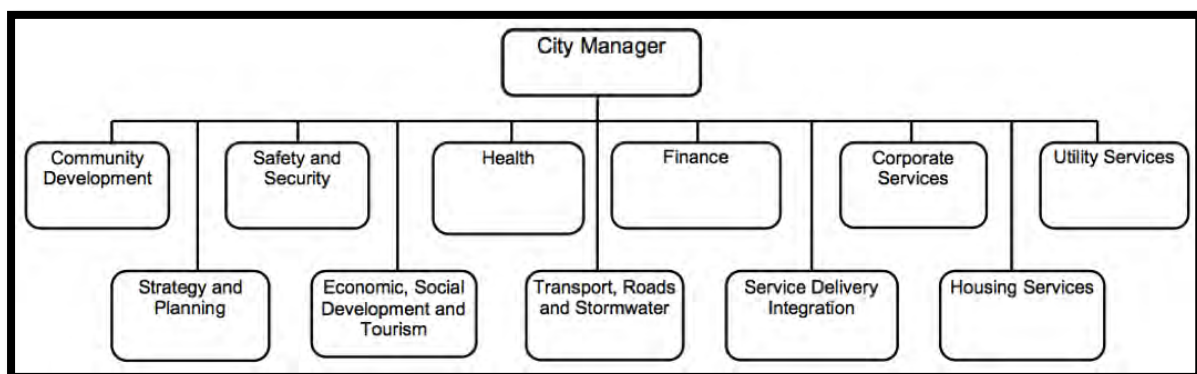


Figure 18: CoCT (2007: 61) directorates organogram.

that the change in project personnel was significant, for the DS project manager, his seniors and the social facilitator had been the project's 'champions'¹⁰³.

In addition to Housing's Informal Settlements Department, the Water and Sanitation (W&S) Department created an ad hoc informal settlement division in 2007. Called the Water and Sanitation: Informal Settlements Unit, it was situated apart from the Department's services for formal areas so that WSISU's personnel could focus solely on informal settlement administration. WSISU was divided into the following branches:

- 'Capital Installations' in which a team of 'project managers' with tertiary engineering qualifications install new sanitation services to informal settlements;
- 'Operations and Maintenance' in which an Operations Manager directed an in-house Complaints team¹⁰⁴ and four O&M teams that addressed these complaints; and
- A 'Tenders, Contracts, Performance, Monitoring and Research' section that offered administrative support, provided spatial data and had Monitoring and Evaluation (M&E) officers that oversaw service providers (Muller, 2009).

The municipal restructuring in 2007 inordinately affected the implementation of informal settlement services in Kosovo, for: DS' disbanding occasioned the transfer of the upgrade project to Housing; and WSISU's establishment meant that its staff would support the settlement's water and sanitation services. WSISU's formation, moreover, meant that two municipal divisions provided water and sanitation infrastructure to informal settlements. I revisit task duplication and the challenge of coordinating municipal services in Section 5.3.1.

5.2.3 National policy guidance

Whilst the project team struggled with Kosovo's upgrade and CoCT restructured its organisation, DWAF disseminated strategies about providing services in informal settlements and *Free Basic Sanitation* in general. I summarise these guidelines next, and comment thereafter on the documents' relevance in view of the implementation problems in Kosovo.

¹⁰³ They defined champions as political representatives and/or municipal officials who are committed to the successful implementation of the project.

¹⁰⁴ Officials log and monitor complaints (C3 notifications) in the earlier-mentioned ERP system.

5.2.3.1 Guidelines for the Formulation of a Strategy & Implementation Plan for the Provision of Sanitation Services in Informal Settlements (2007)

DWAF (2007: 4) suggested when planning informal settlement services that implementers:

- Prepare ‘a longer-term approach to the development of each settlement’ first;
- Make a ‘firm decision’ about providing permanent or interim services; and
- Develop a funding and cost recovery scheme for a long-term plan (Figure 19).

DWAF (2007: 4) also noted that sanitation should ‘be well coordinated and integrated’ with services from other municipal departments, as well as CBOs. With regard to community participation and their role in sanitation delivery, the custodian presumed that:

- Residents would participate in planning due to their concerns about improving services, creating new job opportunities and ensuring the ‘safety of their families’. Their participation, in turn, would increase the likelihood of their eventually taking ownership of new facilities, and help officials identify ‘optimal solutions’ in specific situations (DWAF, 2007: 3, 10).
- Implementers would reach consensus and identify ‘possible solutions’ about ‘appropriate levels of service, funding, employment opportunities, community management and other community contributions’ through ‘consultation and sensitive listening’ in a series of meetings (DWAF, 2007: 11).

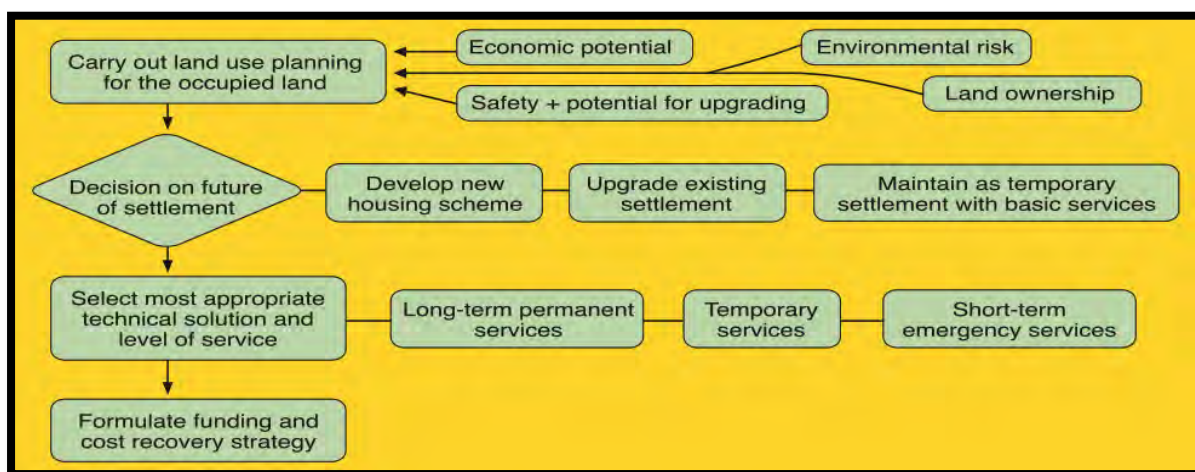


Figure 19: A conceptual model of DWAF’s (2007: 6) suggested strategy for planning informal settlement services.

- While communities would be ‘involved in setting tariffs and annual O&M budgets’ and responsible for daily O&M duties (e.g. cleaning), municipalities should expect ‘minimal’ financial contributions from the ‘poor’ (DWAF, 2007: 4, 10, 8).

Given these assumptions, the national policymaker advised that a municipality:

- Involve elected community members in project planning and create jobs to address high unemployment (DWAF, 2007: 4).
- Establish a ‘two way responsibility agreement’ with communities so that residents could participate in service delivery (DWAF, 2007: 5).
- Establish a ‘community level sanitation task team or management committee’ to assist with decision-making (DWAF, 2007: 11).
- Facilitate the establishment of a ‘community-based management structure to manage sanitation in informal settlements’ (DWAF, 2007: 4).
- Ready cross-subsidies and national grants for infrastructure capital and O&M, if necessary; and introduce ‘general tariffs’ when a settlement is ‘sufficiently developed with both basic physical infrastructure and competent institutional structures’ (DWAF, 2007: 10).

Aside from these implementation assumptions, DWAF (2007: 3) adapted some of its earlier guidance on shared temporary services and suitable technologies:

- While the national policymaker still did not support un-sewered sanitation services for informal settlements, DWAF: (a) extended the length of emergency service provision from one month to one year; (b) distinguished an emergency service from temporary services that are provided for up to five years; and (c) supported the provision of communal facilities in instances of temporary service provision.
- As to technology options, the 2007 *Guidelines* was the first that offered technical advice for greywater disposal¹⁰⁵; and recognised the practical challenges of ground conditions when determining suitable technical interventions. For instance, it said ‘Septic tanks should be avoided’ in situations of poor drainage.

¹⁰⁵ DWAF (2007: 3) advised installing ‘properly constructed rock-filled soak pits’ for greywater disposal.

5.2.3.2 Free Basic Sanitation Implementation Strategy (2008)

DWAF (2008a: 38) published this strategy in October 2008 to help municipalities develop approaches ‘in accordance with current national policy in the water sector’. DWAF’s (2008a: 1, 20, 50) *Implementation Strategy*: (a) broadly targeted *Free Basic Sanitation* provision; and (b) definitively recommended a waterborne service as the only suitable and viable technology for dense urban areas due to there being ‘demand for this from consumers’ and ‘a relatively high proportion’ of residents and businesses that could afford it. Building upon the 2007 *Guidelines*’ O&M advice, DWAF (2008a: 22–23) elaborated that both municipalities and users have fiscal responsibilities in sanitation arrangements:

The principle of free basic sanitation means that poor households do not pay for the costs of the operating and maintaining the ‘off site’ elements, providing the WSA can afford to pay on their behalf. But the household typically pays for the ‘on site’ elements.

In distinguishing between municipalities’ off-site costs and households’ on-site contributions, DWAF (2008a: 54) also inferred that municipal authorities are responsible for daily off-site O&M routines and users for the corresponding on-site tasks. DWAF (2008a: 22, 11, 54) divided O&M costs and responsibilities accordingly:

- **Off-site:** Overhead for contracting, operating, maintaining and regulating bulk infrastructure; promoting health and hygiene; and administering grants and services.
- **On-site:** Providing anal cleansing materials; supplying water in waterborne systems; and cleaning and repairing sanitation facilities.

In consideration of ‘illegal’ settlements ‘where households have settled on land over which they have no rights and with the opposition of the landowner’, DWAF (2008a: 21) recommended that municipalities supply residents with ‘temporary’ on-site systems. While DWAF (2008a: 21) still considered bucket collection systems inadequate, it noted that chemical toilets could be ‘considered as a temporary sanitation service’, though the O&M ‘costs of chemical toilets and bucket collection should not be borne by households’.

With regard to the relevance of the 2007 *Guidelines* and 2008 *Strategy* to CoCT, DWAF’s latest advice indicated that:

- **National guidance continued to shadow municipal policymaking:** For instance, DWAF's 2007 strategic informal settlement conceptual model is similar in logic to CoCT's 2003 *Framework for Upgrading Informal Settlements* (see Section 5.1.7).
- **Pragmatic acceptance of communal un-sewered toilets:** DWAF's tolerance of communal facilities in its 2007 *Guidelines* and chemical toilets in its 2008 *Strategy* as temporary informal settlement services starkly contrasted its past opposition of 'bucket latrines' of any kind—especially when supplied for more than one month (see Section 5.1.8). While DWAF did not explain these changes, it likely adjusted its stance in view of every municipality's inability to eradicate the bucket system due to non availability of water, appointment of contractors, the need for provinces to augment the [*Free Basic Sanitation*] budget allocation and resistance by some communities to anything other than water borne sanitation (PMG, 2007).

The above points indicate that municipal experiences in informal settlements often took precedence over the national policymaker's guidance. While CoCT officials could perhaps celebrate DWAF's adjustments as confirmation of their authority in the policy process, the implementers that I had met instead expressed general frustration with their inability to apply the 'rational' planning approaches that were outlined in both municipal and national policies when introducing services to informal settlements. For example, the Housing project manager for Kosovo's upgrade said he sought guidance to deal with the on-the-ground socio-political conflicts that deviated from the state's consensus building mode of governance. Most of the advice he received, however, centred on adapting the residents' behaviour to fit into the state's official processes. In other words, there was little (or no) direction from policymakers when dealing with the realities he faced in upgrading Kosovo.

A review of national policies from 2004 to 2008 seems to support the Housing project manager's above-mentioned predicament. As Lagardien and Cousins (2004: 29) noted, DWAF might have regarded beneficiaries as 'central role-players', but the national policymaker had yet to offer any advice 'beyond the broad facilitation and communication' of needing to establish representative bodies. DWAF also did not broach conflict resolution when espousing demand-driven community approaches in its 2007 *Guidelines* and 2008 *Strategy*. DoH (2004c: 31), in contrast, had noted that community facilitation should include 'Conflict resolution, where applicable', but offered implementers no further guidance as to how they could potentially resolve conflicts. DoH (2004b: 31) had also previously proposed

Ward Committees as a participatory forum for communities, but offered no alternatives if this was rejected. Taking into account the implementation problems in Kosovo, the policymakers' broadly framed conflict resolution and participatory planning advice was unhelpful and irrelevant to municipal officials who struggled to upgrade an informal settlement when confronted with conflicting rationales in project planning.

Once again, there was a disconnection between national policymakers' guidance and municipal implementers' needs. In lieu of helpful policy, the project files indicated that implementers relied on endorsements from the City's political leaders and senior management to validate their approach and finally complete Kosovo's rudimentary services upgrade in February 2009. Officials also somehow managed to stay within their budget after a frustrating 30-month delay (Table 6), though this was likely due to their inability to build the entire infrastructure they had planned.

Unfortunately, Kosovo's vacuum system failed immediately after being commissioned. The next section examines the causes of its failure.

Table 6: Kosovo rudimentary upgrade total capital costs (CoCT, 2010c).

Service	MIG	Local fund
Roads & stormwater	R2,035,481.14	R3,245,067.09
Sanitation	R11,125,324.85	R561,968.43
Water supply	R3,391,553.13	R1,763,466.21
Overall total: R22,122,860.85		

5.3 Vacuum sewer failure (2009-2011)

Kosovo's new sanitation system comprised of:

- 354 full-flush toilets grouped together in 42 clusters throughout the settlement;
- A tap with a concrete basin and collection chamber for each cluster; and
- A vacuum station (Figure 20).

Each cluster had six to fourteen toilets, and waste conveyed via gravity to a 40ℓ sump in the collection chamber (Figure 21a). The City housed the chambers in pre-cast concrete rings with lockable lids as a security precaution. Municipal officials explained that this feature was added to protect the collection chambers from tampering.

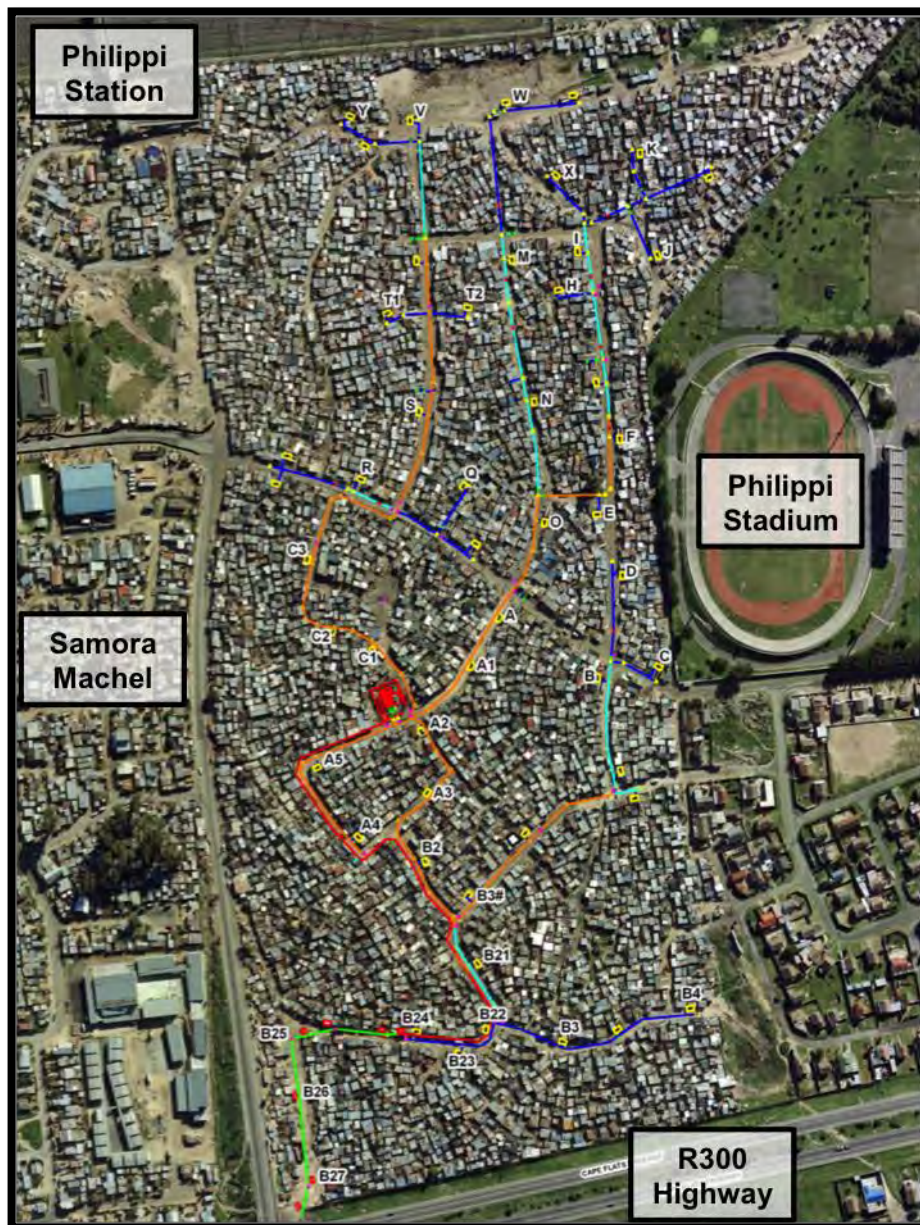


Figure 20: Kosovo’s vacuum sewer installation (CoCT, 2010d). The collection chambers (marked alphanumerically) are linked to the vacuum station near the map’s centre.

These concrete barriers, however, ultimately exacerbated the system’s operational problems after the collection chambers malfunctioned shortly after the sewer’s commissioning. Ashipala (2011) explained that the chambers failed because: the interface valves either remained open or shut after sharp items damaged them; and bulky objects caused sump blockages (Figure 21b/c). Wastewater thereafter accumulated in the concrete rings, which contained most of the sewage and flooded the collection chambers as a result. Dirt and fats then clogged the sensor controllers’ pilot tubes, which caused them to also

malfunction. Air leakages moreover overworked the vacuum station. Sewage subsequently collected between the toilets and the collection chambers because of these operational issues (Figure 21d), and seeped from the system into the surrounding environs (Figure 22a).

After the system malfunctioned, W&S officials shut down the vacuum station, and a municipal contractor de-sludged the collection chambers thrice weekly so residents could continue to use the toilets. Put differently, Kosovo’s R17 million vacuum sewer essentially functioned as a series of septic tanks that were emptied three times a week. Unsurprisingly, operating the vacuum sewer as a septic system was impractical, because the 40ℓ sumps had less capacity than 100ℓ container toilets (Figure 22b) and overflowed after several flushes. It, moreover, was not cost-effective. For example, during the 2009/2010 financial year, contractors regularly de-sludged 26 collection chambers at an approximate cost of R505,475.40 (Table 7). When compared to the maximum amount of waste that could be collected and transported for disposal from the container or chemical toilets that were also used in Kosovo, the vacuum/septic toilets cost the City 18 times more to service than container toilets, and four times more than chemical toilets.

Dissatisfied with the ineffective system, residents padlocked the doors of the majority of the toilets; and disconnected the water supplies of others, in order to prevent people from using them (Figure 22c). Residents also ostensibly destroyed a set of toilets as a sign of discontent (Figure 22d), and demanded that the City ultimately replace the dysfunctional vacuum sewer with a gravity system and, in the interim, safely contain waste in the generally detested but effective container toilets (Daily Sun, 2011). The failure of the vacuum sewer and the subsequent pollution of its surroundings illustrate the point that national policymakers had once made concerning the significance of maintaining sanitation systems:

The proper operation of sanitation systems is essential to protect the environment, and must be paid for. A complicated, expensive system which is poorly maintained can be just as harmful to the environment as having no system at all (RSA, 1996b: v).

Table 7: Kosovo’s servicing costs from 1 July 2009 to 30 June 2010 (Jooste, 2010).

Sanitation service	Costs	Number of units	Servicing per week	Max litres collected	Cost per litre
Vacuum/septic	R505,475.40	26	3	162,240	R3.12
Container	R1,391,015	256	6	7,987,200	R0.17
Chemical	R1,572,160	130	3	2,028,000	R0.78



Figure 21: Clockwise from the top: (a) A collection chamber in Kosovo’s vacuum system, with the sump on the left and the sensor unit on the right (Taing, 15 April 2011); (b) a damaged interface valve diaphragm (Cornelius, 26 June 2009); (c) a brick in the sump (Cornelius, 28 February 2010); and (d) a flooded chamber (Taing, 7 June 2010).



Figure 22: Clockwise from top: (a) sewage seeping from a collection chamber (Taing, 29 November 2010). While (b) container toilets are unsightly and smell, Kosovo residents preferred them to the ineffective vacuum toilets because the contents of the plastic containers did not seep into the surrounding environment. Residents, who were dissatisfied with the malfunctioning system, also (c) cut water supplies of units to deter usage (Taing, 11 November 2010) and (d) destroyed toilets in protest (Pan, 30 May 2010). But, as (e) the photo of a full but disconnected toilet indicates, some nevertheless continued to use the vacuum toilets (Taing, 15 April 2011).

National policymakers had made the above statement on the assumption that poor maintenance of expensive systems occurred due to poor financial planning. The vacuum sewer's failure, however, was not a problem of enforcing payment for O&M. Rather, as Sections 5.3.1 and 5.3.2 will show, the vacuum sewer's breakdown was collectively caused by an array of institutional and on-the-ground challenges.

5.3.1 Institutional problems

In a memo written to the head of WSISU, the Housing project manager reported that the vacuum sewer was 'fully operational' during test runs in February 2009 but it malfunctioned at the construction contractor's site handover on 5 March 2009 because the chambers were 'full of stones and other material' (CoCT, 2009b). The Housing project manager said the 'use of improper material for anal cleansing' had damaged or blocked the collection chambers' interface valves (CoCT, 2009b). The construction contractor indicated in interviews that they, too, suspected that residents' use of the sewer affected its functionality. They nevertheless cleared the blockages, which the Housing project manager noted 'was not their responsibility at all'. The Housing official recalled that the vacuum sewer's problems at the handover occasioned 'a lot of negativity' from his W&S colleagues, which was problematic because

Later attempts on 02 April 2009 and 5 May 2009 to involve and train those officials who will ultimately be responsible for the future operating and maintenance of the system failed dismally... Although [two WSISU officials] assisted wherever possible to keep the system functioning, it is clear that unless a dedicated team takes responsibility and maintain the system it cannot function optimally in the current environment (CoCT, 2009b).

In light of municipal officials' limited knowledge of vacuum technology and its non-existent O&M plan, the Housing project manager conceded that the construction tender should have included provisions for the sewer's daily requirements; the development of a Kosovo-specific operations manual; and training for a 'dedicated' O&M team (CoCT, 2009b). He subsequently advised on 30 June 2009 that CoCT (2009b) contract a service provider via a two-year tender to support the system's operations; prepare an O&M manual; and train the officials who would 'eventually take over the system'. Notably, the Housing official did not state which department should undertake responsibility for preparing the O&M servicing tender in his memo. The Housing project manager later explained that while they are 'one city', he could not advertise a tender for O&M services because his budget (and

by extension, his role) was restricted to capital projects. He, moreover, did not have ‘depots’ (O&M teams) in Housing. In light of CoCT’s budgetary restrictions and functional divisions, the Housing official frankly stated that his W&S counterparts needed to take responsibility for the vacuum sewer’s O&M. Many W&S officials countered, however, that the vacuum system was a ‘Housing project’, and implied that it should thus be ‘Housing’s problem’.

After much political pressure, WSISU officials said senior W&S officials eventually accepted responsibility for the vacuum system. The W&S Department, however, did not set-up a servicing tender as advised. Instead, the senior officials assigned WSISU’s personnel to respectively maintain the ‘pipes’ while its pump station operators maintained the ‘pumps’. Frustrated WSISU O&M officials ‘at the firing line’ said that they neither received training nor a manual on how to manage the system, so they used a ‘trial-and-error’ approach to operate it. They, moreover, initially struggled to establish whether WSISU or the pump station operators were responsible for the collection chambers, which technically were not pipes or pumps. Eventually, WSISU accepted responsibility for the chambers and learned upon assessing the system that they could not monitor air leaks and replace damaged interface valve parts because:

- Spare parts and equipment for inspecting leaks (such as inflatable rubber balls and pressure gauges¹⁰⁶) had not been acquired in the original tender; and
- The price for replacement sensors and valves was costly (at R11,600 per set in 2010), and could only be sourced from the German manufacturer.

Despite their high costs, WSISU eventually acquired twelve sensor and valve units for Kosovo’s dysfunctional vacuum system by mid-2010. The O&M official responsible for installing the parts¹⁰⁷ said that he had opposed replacing the sensor and valves, because the City had not yet resolved the on-the-ground management problems (which are discussed in the next section) that affected the sewer’s operations. He nonetheless had to follow his seniors’ instructions. Ultimately the new parts were also damaged when the collection chambers flooded again. In addition to their inability to sustain the chambers, WSISU staff had trouble coordinating with their pump station counterparts. It is unclear why the two units

¹⁰⁶ The lack of rubber balls (which are used to isolate sections of the sewer) and pressure gauges meant that O&M officials could not determine the location of failures in the sewer network.

¹⁰⁷ In 2010, only one official had enough knowledge to troubleshoot and operate the vacuum sewer on a daily basis. He gained this knowledge by downloading O&M manuals and teaching himself about the technology.

did not work together, but the lack of intra-departmental coordination resulted in operational problems at the vacuum station (Figure 23).

In summary, departmental tension amongst units responsible for capital and servicing of sanitation infrastructure; unavailability of spare parts and O&M equipment; and lack of coordination between the ‘pipes’ and ‘pumps’ teams all inhibited CoCT’s ability to effectively manage the vacuum sewer according to the manufacturer’s prescriptions. Many officials, in retrospect, said that this set of problems suggested that while the vacuum system might have been technologically ideal for Kosovo’s natural and built environment, it was wholly inappropriate because: it was too ‘sensitive’ and not ‘robust’ enough for an informal settlement environment; and too ‘complicated’ for them to manage.

In light of the aforesaid municipal O&M challenges, the former DS project manager agreed that ‘maybe the system is not for Kosovo’. He nevertheless stressed in a February 2011 interview that he ‘believes in the system’, and pointed out that the decision to install a vacuum sewer was necessitated by residents’ and politicians’ unequivocal demands that CoCT find a means of introducing waterborne services to Kosovo. In other words, implementing officials had no choice but to find a technical answer for sewerage the settlement in light of the political pressure. Recounting his visit to Botswana, the project’s original champion said that Shoshong’s vacuum operators had demonstrated that a T-shirt and



Figure 23: When assessing why the discharge pump was not working, pump station operators realised that the vessel’s non-return valve was upside down and had somehow collected stones (Taing, 30 March 2011). The operators conjectured that the ‘pipes’ team might have unintentionally inserted the valve upside down when attempting to address potential vacuum station problems without the ‘pumps’ team.

sanitary napkins could be flushed down toilets without causing blockages. The DS project manager subsequently was of the position that the vacuum system ‘worked like a dream’ after the demonstration, and that it could suitably operate in an informal settlement where the majority of blockages were caused by the use of newspapers as anal cleansers. Given their prior experience of dealing with blockages that occur in toilets or ‘right outside’ them, he said that they could not have foreseen the collection chamber blockages by gross solids. Demonstrating his skills as a problem-solver, the former DS project manager stated that building interceptor tanks two metres from the toilets to prevent solids from entering the collection chamber ‘would have solved this problem in my view’. In other words, he suggested converting the failed system into a settled-vacuum sewer hybrid. Yet, he could not readily offer advice for resolving CoCT’s broader sanitation delivery challenges, which were:

- The need for consistent support and coordinated management of new infrastructure amongst a number of decentralised units operating in ‘silos’; and
- The need to adapt its technically oriented approach to service provision—especially in light of the various on-the-ground problems discussed in the next section.

Reflecting on the first point, the DS project manager said that he, too, struggled with Water Services’ refusal to ‘take ownership’ of the vacuum system. While he was no longer involved in informal settlement servicing, he stated that the involved officials had thrown ‘in the towel too quickly’ due to ‘short-sightedness’, and highlighted that all sanitation systems require good maintenance by the servicing branches. The DS project manager’s perspective coincided with the CoCT (2009b) official who had ‘inherited’ the project from him, for the Housing project manager, too, noted that the system’s maintenance is

of the utmost importance, and as long as there are negative perceptions and a lack of commitments from those responsible for the operating and maintenance of the system, it is unfortunately guaranteed to fail.

Put simply, the two project managers responsible for implementing Kosovo’s upgrade were aware of the significance of maintaining new infrastructure, and attributed the sewer’s ultimate failure to the servicing branch’s refusal to take responsibility for its maintenance. Their assessments suggest that they accepted the City’s pipeline approach to delivering sanitation services in which they had limited roles as planners and implementers of new infrastructure. Neither seemed to engage with the viewpoint of their Water Services/W&S

counterparts, who expressed frustration with having to assume accountability for infrastructure that they had not designed or implemented. W&S officials, in contrast, generally supported the new infrastructure implemented by their departmental peers.

Water Services/W&S' reluctance to plan and service Kosovo's vacuum sewer suggests that contestation remained unresolved throughout the system's planning, construction and operation, and that there is a major problem with the inter-departmental pipeline approach in project planning and management. Both problems undoubtedly contributed to the vacuum sewer's failure, because the system's implementers and its eventual managers never satisfactorily agreed upon their respective inter-departmental roles and responsibilities. Housing and W&S officials reportedly also disagreed over their duties in other informal settlement servicing projects (Taing, Armitage, et al., 2013). Additionally, Mello and Maserumule (2010: 291) found that, in spite of the emphasis on intergovernmental and integrated development planning in South Africa's legislation and policies, there is significant misalignment between local, provincial and national government institutions. In other words, coordination and alignment seems to be a major challenge within and among South African public administrations. This indicates that the unsettled differences concerning the pipeline approach and lack of coordination amongst public bodies are not unique to this case study. A major consequence of this unresolved conflict and incoordination has been the duplication of a municipal function (the provision new water and sanitation services to informal settlements) for the supposedly resource-limited public institution.

5.3.2 On-the-ground problems

In addition to the aforesaid institutional coordination dilemma, officials struggled with establishing the on-the-ground roles and responsibilities for the vacuum toilets in Kosovo. The construction contractor said this might be related to how the toilets were allocated. He noted that when installing the sewer, residents had asked him how the toilets would be allocated amongst the community. Both Housing and WSISU officials explained that they generally worked through local informal settlement leaders to allot toilets according to CoCT's (2005a: 19) standard of one toilet for every five households. And, irrespective of the technology provided or a settlement's conditions, WSISU (2010: 2) officials:

- Intended to share O&M tasks with the beneficiaries by having them keep their toilets 'clean and hygienic' while the City assumed 'plumbing repairs and maintenance';

- Expected policy beneficiaries to assist the City by timeously reporting faults.

Several officials referred to this system as community-managed toilets, in reference to the beneficiaries being the lead O&M actor in this sanitation arrangement. These intended roles indicate that WSISU's community-managed toilet model followed DWAF's division of responsibilities in *Free Basic Sanitation* arrangements (see Section 5.2.3.2), as the City subsidised new toilets and provided off-site O&M support, while the users undertook the corresponding on-site duties. It seems, however, that neither Housing nor WSISU had organised the distribution of Kosovo's vacuum toilets. The construction contractor explained to residents that he was not aware of a municipal allocation plan, and suggested that they negotiate the allocation amongst themselves. He said that a number of residents consequently procured padlocks and claimed toilet cubicles by locking them.

Regardless of how the toilets were allocated, CoCT officials from both Housing and WSISU remarked that Kosovo's residents were not using their toilets 'properly', as they had recovered 'inappropriate' items that had been flushed down or thrown into the sewer. In general, they attributed the 'misuse' of toilets in informal settlements to:

- Residents' general unfamiliarity with sewered systems and good hygiene practises;
- Children treating toilets as playgrounds (Figure 24); and
- Communities not taking 'ownership' of the toilets given to them from the City.

Community ownership, from CoCT's perspective, meant Kosovo's residents should undertake responsibility for the on-site duties they used. The officials, however, claimed that toilets in informal settlements like Kosovo often fell under disrepair due to: (a) users' negligence and (b) vandalism, either out of frustration or to re-sell parts of value.

In addition, given that the 'DA/ANC is very rife' in Kosovo, a former DS official stated that he 'wouldn't be surprised if there was sabotage to jeopardise the system'. He explained that blockages caused by newspaper and the 'odd' stones had been anticipated at the toilets or just beyond them in the sewerline. In view of this understanding of informal settlement blockages, he noted that the sharp and bulky items in the collection chamber indicated tampering. Many WSISU O&M officials shared the DS official's view. While the



Figure 24: Children playing behind a toilet (left) and a wood plank that became visible after the de-sludging of a sump (right) (Taing, 6 December & 4 May 2010).

O&M officials could account for how a spoon might accidentally be discarded along with food waste, they noted that it is impossible to flush a brick or wood plank (Figure 24) down a toilet. The O&M officials hence deduced that someone had purposely lifted the heavy lids of the collection chambers, and deposited the bulky solids in them.

Beauchair (2010: 38) noted that Kosovo's former Ward Councillor had taken the City's explanation for the system's failure 'as an insult', for the officials had only focused on the residents' culpability. Beauchair (2010: 39) moreover said that Kosovo residents refuted claims of their ignorance or behaviour causing the vacuum system's failure, with many stating that they had grown up in dwellings and worked in locations with sewerage. They hence were familiar with how to use full-flush toilets. Parents also said they understand the dangers of poor sanitation, but they could not prevent their children from playing in or near the dysfunctional toilets in light of the settlement's cramped layout and non-existent play areas. In contrast to CoCT officials, the former Ward Councillor and residents attributed the vacuum system's failure mainly to its:

- Poor design, such as small outlet pipes that could not accommodate the 'commonly flushed' anal cleansing materials such as newspapers and flour sacks (Beauchair, 2010: 30). Moreover, the demand in Kosovo for sanitation services exceeded the capacity of the new system (Sowetan, 2010).



Figure 25: A father collected water from a detached basin whilst the municipal contractor de-sludged a collection chamber (Taing, 17 December 2010).

- Poor construction out of ‘cheap’ ‘substandard’ materials (Beauclair, 2010: 30). For instance, the washbasins eventually disengaged from the toilet cubicles and its plastic fittings were broken or had disappeared after several months (Figure 25).

In other words, they were of the opinion that the City had provided them with mediocre infrastructure. In considering the Councillor’s and residents’ outlook, the state’s assumption that the poor live in unhygienic conditions and abuse infrastructure due to ignorance fails to account for the broader context in which limited services contribute to unclean environments. For example, in lieu of infrastructure to remove refuse and greywater, Kosovo residents adopted the following practises that officials often interpreted as misuse:

- **Refuse:** In 2010, Kosovo had 12 skips located throughout the settlement in which residents (or a Solid Waste worker who collected household waste) could dispose of household rubbish. These sites, however, tended to be full of waste, and—for some—inconveniently located away from their homes (Figure 26a/b). Some residents hence deposited their waste at the dysfunctional vacuum toilets, on the presumption (or hope) that the City would clean the communal spaces Figure 26e/f).

- **Greywater:** I observed that residents generally disposed of greywater in toilets, stormwater drains or open spaces (Figure 26c/d/e).

Moreover, given that communal toilets generally were situated away from homes, residents also used pails in their own homes to contain urine and faecal matter. Most of the waste collected in ‘night pails’ would thereafter be disposed of like greywater. There was also evidence of open defecation occurring in Kosovo (Figure 26g). And, while the City’s lack of infrastructure largely lies in residents settling in areas that are difficult (if not impossible) for to service on a household basis (Sonnenberg, 2013c), it is significant to consider how the City’s actions might actually cause or encourage misuse or unhygienic behaviour. For example, an Environmental Health official from the City Health Directorate recalled that a young mother had once interrupted her hand-washing demonstration to point out that she could not wash her hands after relieving herself because the toilets CoCT provided lacked washbasins and running water. The Health official said she was ‘humbled’ by the experience, as the woman had highlighted how hypocritical it was to teach residents about ‘good hygiene’ when municipal infrastructure encouraged unhygienic practises. In light of the residents’ disposal practises, it was evident that the settlement’s waste removal services and drainage infrastructure was insufficient to meet its inhabitants’ needs. This insufficiency, in part, contributed to the misuse of toilet facilities and unhealthy practises in the settlement.

CoCT officials, in the City’s defence, explained that they could not accommodate more facilities as residents generally refused to move for the installation of new infrastructure. Furthermore, while plastic fittings are inferior to metal, residents could generally use parts made of the former longer than the latter because metal fittings were commonly pilfered within 24 hours of new installations. They thus reasoned that plastic fittings were more cost-effective than their metal counterparts.

Based upon the aforementioned reasoning, it is evident that CoCT officials and Kosovo residents suspected each other’s motives and actions. In retrospect, the malfunctioning vacuum sewer is a physical manifestation of the mistrust between the City and residents. It also indicated the users’ perspective of who ‘owns’ and is thus responsible for communal infrastructure in Kosovo. While DWAF and CoCT expected policy beneficiaries to undertake the on-site duties of the toilets they received, many residents made it clear that they would not accept responsibility for ‘the City’s toilets’. They claimed that this was, in part, due to their not being consulted when the communal facilities were designed, as



Figure 26: Clockwise from left: (a) solid waste skip locations in Kosovo; (b) a solid waste skip; (c) solid waste and greywater mix together next to a stormwater drain; (d) women dump greywater into a stormwater drain; (e/f) greywater dumped in vacuum toilets; and (g) evidence of open defecation alongside a vacuum toilet (Taing, 14 September, 7 & 9 June 2010).

well as being unhappy that they had not been equitably distributed amongst households (Beauchair, 2010: 43–44). In their defence, CoCT officials reasoned that it is impossible to consult all of Kosovo, as this technically would mean their speaking to over 15,000 people. Moreover, officials said they could not allocate the toilets in Kosovo according to the community-managed model because they could not provide the densely structured settlement with enough facilities to meet its minimum standard of one toilet for every five households.

Yet the residents' refusal was also linked to the challenge of managing a limited amount of facilities amongst a wide body of users. While some households had banded together in small groups to restrict access to a communal toilet that they jointly cleaned, the majority of the facilities had been left unlocked¹⁰⁸ to allow anyone access. Toilets in unlocked cubicles hence operated as public toilets. Unsurprisingly, the public toilets tended to be dirtier than the community-managed facilities, and most residents expressed their reluctance to clean the mess of strangers. They hence stated that the City should operate and maintain all of the informal settlement's toilets at its own cost. Kosovo residents' actions and inaction seemed to support their stance of the City being wholly responsible for the informal settlement's toilets. I, for instance, observed that the municipal contractor de-sludged and rinsed most of the utilised vacuum toilets during its thrice-weekly rounds. Moreover, most residents said that if the vacuum system required toilet paper then the City should provide it, because they could ill-afford such a 'luxury'. These findings and observations suggest that Kosovo residents generally did not take 'ownership' of the communal toilets by undertaking the on-site O&M responsibilities as national policymakers and municipal implementers had intended. Given that the City provided the facilities for communal use, most residents insisted that CoCT treat the informal settlement's toilets like public facilities and provide a janitorial service to maintain the toilets' cleanliness.

In light of the aforementioned institutional and on-the-ground problems, Kosovo's vacuum system was bound to fail due to a diverse range of socio-political conflicts that adversely affected its effective on-site management. Most significant was the project implementers' inability to overcome the rejection of their O&M plans by their colleagues and Kosovo residents—for there seemed to be no mechanisms in place to either ensure the latter's compliance with the City's pipeline approach to sanitation delivery, or allow discussions for alternate means of collaboratively managing the sewer. And ultimately, because of the unclear lines of responsibility in the provision of Kosovo's toilets, it was difficult to hold

¹⁰⁸ Some residents also explained that they left certain cubicles unlocked because the toilets were broken.

anyone accountable for the vacuum sewer's failure and identify anyone who was willing to undertake responsibility for resolving its operational problems.

After investing countless hours on the rehabilitation of Kosovo's vacuum sewer, a WSISU O&M official said he was '*gatvol*' (fed up) with the insensible management of the system. He noted, in particular, that he did not support the City's short-sighted method of scoring departmental 'quick wins'¹⁰⁹ or 'little victories' when the entire system's management needed to be overhauled. He told me, years later, that the City eventually decommissioned the vacuum sewer in 2011 and provided Kosovo with more 'buckets'. To my knowledge, the broken vacuum system has remained in Kosovo, serving as a physical reminder of the once promising servicing upgrade.

5.4 Summary

This chapter discussed the viewpoints of people involved with the design and implementation of sanitation interventions for Cape Town's informal settlements from 1999 to 2011. It largely presented the pressure on municipal implementers to overcome historical wrongs in Kosovo informal settlement through technical means with minimal direction and support from national policymakers, municipal decision-makers, local political representatives and informal settlement residents. Kosovo's vacuum system is an example of how seemingly groundbreaking policies and processes failed in practise because of:

- Some residents' refusal to participate in the state's official processes;
- CoCT's disjointed organisational structure, which made it difficult to coordinate servicing decisions and delivery amongst different municipal silos; and
- The rejection of pipeline management amongst those expected to manage sanitation systems in informal settlements.

These problems ultimately contributed to the municipal implementers' inability to upgrade Kosovo and manage the vacuum sewer in what they regarded as a rational manner. The vacuum system was thus bound to fail due to unresolved differences amongst:

¹⁰⁹ Muller (2014: 38) explained that quick wins are projects that are 'tackled first' because 'the planning and design and sometimes even tender documents had already been completed'. In other words, these projects are prioritised due to their being administratively and logistically easier to address.

- Kosovo residents, Councillors and CoCT officials, as they distrusted each other and could not align their dissimilar conceptions of fair democratic processes.
- Kosovo's supposed leaders, as their protracted arguments suggest that the informal settlement did not have a single community voice.
- CoCT officials in different departments and units, for the disputes complicated administration and signified a united city did not design and implement the sewer.

The lengthy planning and disjointed management of Kosovo's vacuum sewer due to a range of implementation, institutional and on-the-ground challenges suggests that municipal implementers were confronted with conflicting rationales of how informal settlement services should be developed and managed. With regard to the broader sanitation policy debate, there seemed to be two rationales in conflict. The first focused on re-framing the government's program according to the policy beneficiaries' perspective, while the second reflected the government vision of the general public jointly sharing responsibility for sanitation infrastructure with the state. Of these actors depicted in the case, the residents most significantly set agendas, changed implementation processes and *Free Basic Sanitation* outcomes in Kosovo by communicating dissatisfaction with the government's vision through protest, participation and inaction. On-the-ground data from Kosovo moreover suggests that there was a considerable conflict between DWAF's, CoCT's and the residents' conception of the *Free Basic Sanitation* policy beneficiaries' responsibilities. The state's assumption that residents would accept the on-site O&M tasks of communal facilities was flawed, and did not account for the complexity of managing hundreds of toilets amongst thousands of households. The failure of the community-managed model in Kosovo highlights the need to consider alternative O&M arrangements in policy and practise for *Free Basic Sanitation* in informal settlements.

CoCT also struggled with the functionality of community-managed toilets in informal settlements throughout the metro. A WSISU official explained that this generally occurred because 'Residents don't share toilets as we expected'. Her comment implied that the pipeline structure that involved communities as owners and caretakers for communal informal settlement *Free Basic Sanitation* facilities was not working at large. Taking into account this problem, CoCT's (2013h: 1) W&S Department ultimately accepted that

The current status of shared toilet facilities requires special focus due to the lack of dedicated ownership [by communities] and high maintenance thereof. In response to this, it was decided that janitorial workers would be appointed on contract...to provide services to these shared toilet facilities.

In other words, though reluctant to save the vacuum system, the W&S Department (with the support of the Mayor) assumed responsibility for the City's informal settlement sanitation assets by establishing a janitorial service for conventional waterborne services. The next chapter examines the execution of this programme from various community perspectives.

6. BM Section (2011–2014)

On 16 May 2012, Mayor Patricia de Lille (2012b) announced that the City would implement a daily janitorial service for communal flush toilets in informal settlements throughout the metro. This chapter examines the implementation of the City’s sanitation programme in Cape Town’s largest township (Khayelitsha) from the community viewpoints of: (a) civil society advocates; and the residents who were (b) employed to clean toilets and (c) intended to use them in an informal settlement called BM Section. I first present BM Section’s history and present housing situation in this chapter. Following this background information, I explain the commencement of the City’s janitorial service and its early implementation for settlements like BM. I then detail several on-the-ground assessments of the janitorial programme and general impressions of municipal services in Khayelitsha. The data I present is based upon: engagements with the aforementioned parties; press releases and media coverage about the janitorial programme; and findings from a cell phone survey I conducted about informal settlement residents’ sanitation practises and needs. The BM janitorial case study will show how the implementation of sanitation services in Cape Town is complicated by different interpretations of what constitutes progressive access, constructive planning roles and adequate infrastructure design in informal settlements.

6.1 History & housing situation (1987-2013)

BM Section (Figure 27) is located in Khayelitsha. Meaning ‘new home’ in Xhosa, it is situated on a former nature reserve (Mckenzie et al., n.d.). Apartheid officials built thousands of houses from 1979 to 1984 with rudimentary infrastructure of a bucket toilet per plot and a communal standpipe for every four homes, as well as a network of gravel roads and street lighting at the former reserve (SPP-WC, 1984: 79). Huchzermeyer (2003: 602) said the ‘monstrously engineered’ township—which is located in the ‘most inhospitable’ and ‘sandblasted’ part of the city—was built specially for black ‘squatters’ and migrant labourers as part of a spatial segregation plan. Dewar and Watson (as cited by SPP-WC 1984: 103) said the new township was essentially a ‘homeland’ that apartheid officials had created ‘to establish total social control over the black population of Cape Town’.

While many had resisted moving to Khayelitsha on the grounds that their forced relocation made them ‘foreigners, with no rights, in the land of their birth’ (SPP-WC, 1984: 138), the demand for housing eventually surpassed what the then government could provide.



Figure 27: BM Section borders Lansdowne Road¹¹⁰ to the south; France informal settlement to the west; the N2 highway and Kuils River to the north; and the Noluthando educational facility and the formal settlement of Green Point to the east.

¹¹⁰ Lansdowne Road was renamed Japhtha K. Masemola Road in March 2013 (Cape Argus, 2013e). I, however, refer to the street by its former name because residents and municipal officials alike referred to the road as Lansdowne after the official name change.



Figure 28: Residents sub-divided BM into A, B, C, D, E and F Sections. The map shows the residents’ sub-division and the council’s ward divisions (VPUU, 2010).

BM Section informal settlement was founded soon after Khayelitsha’s formal establishment. Several residents claimed that the settlement’s name honours the memory of Richard ‘Barney’ Molokwana¹¹¹, and its first occupants had resided in overcrowded housing in formal areas before settling at the present site in 1986 or 1987. The settlement’s population ballooned over time, and the mounting needs of its residents ultimately overwhelmed its community representation system by the 2000s. BM’s leadership thereafter subdivided the settlement into six units, and apportioned the settlement’s administration amongst the representatives of these sections (Figure 28).

BM Section’s neighbour France also has its own community leadership system¹¹². This suggests that residents of BM and France distinguished between the two settlements. The City and a local NGO (Violence Prevention through Urban Upgrading) that facilitated a

¹¹¹ These residents said that the former commander of the armed anti-apartheid group Umkhonto we Sizwe (SA History, 2009; Tambo, 1986) had lived in neighbouring M Section before his untimely death.

¹¹² The two settlements also have different histories. VPUU (2010: 7) noted that a former local authority wanted to build a new library and school on an occupied site, so they relocated the site’s occupants to France in 1988.

municipal in-situ upgrade project, however, treated the two settlements as one in their development plans (CoCT, 2011b; SA Cities Network, 2011; VPUU, 2010). The merger of ‘BM/France’ as one unit reflects the City’s intention of upgrading the adjacent settlements simultaneously (CoCT, 2013c; VPUU, 2010). Due to this joint plan, the two settlements’ demographic data tends to be combined. Home to 4,620 households (16,632 people), BM/France was CoCT’s (2013c) sixth largest informal settlement in terms of structural density in 2013. Its combined area is 29.6 hectares (SPS, 2013).

By the time I had commenced field research in November 2012, the BM/France in-situ upgrade project was at an impasse. A devastating New Year’s Day fire eventually prompted CoCT to re-evaluate BM/France’s future in 2013 (Figure 29). Shortly after the fire, the City appointed consultants to design a permanent housing development in BM/France based on conventional urban planning and engineering design. The consultants assessed that only 12.09 hectares (40.8% of the two settlements’ combined area) could be developed into permanent housing after taking into account the extant road, overhead electricity lines and the need for buffer zones to protect against flooding from the wetlands and Kuils River (SPS, 2013). By mid-year, the consultants produced a spatial reconfiguration plan that would allow 1,467 households (31.7% of BM/France’s then population) to stay on-site in multi-storey walk-up apartments (SPS, 2013).

Despite the immense political interest in BM/France’s ultimate development (Figure 30), the housing project—like most upgrade projects—has hardly progressed. Officials said in 2014 that the delay was linked to the general challenges of reducing the low-income housing backlog. For example, they noted that the City only builds and hands over 12,500 new homes annually. This amount hardly makes a dent in Cape Town’s housing backlog, which increases every year due to in-migration and natural population growth. Ironically, a successful upgrade of BM/France according to the aforesaid spatial design would exacerbate Cape Town’s backlog problem—for national legislation requires that the City identify lodging for the residents it displaces (RSA, 1998b). The endless problems with new housing compelled CoCT officials to acknowledge that the infrastructure they have built and the resources they have expended in informal settlements will be needed for the foreseeable future. The next sections discuss the City’s plan for sustaining communal informal settlement services by employing residents to care for the toilets they use and share.

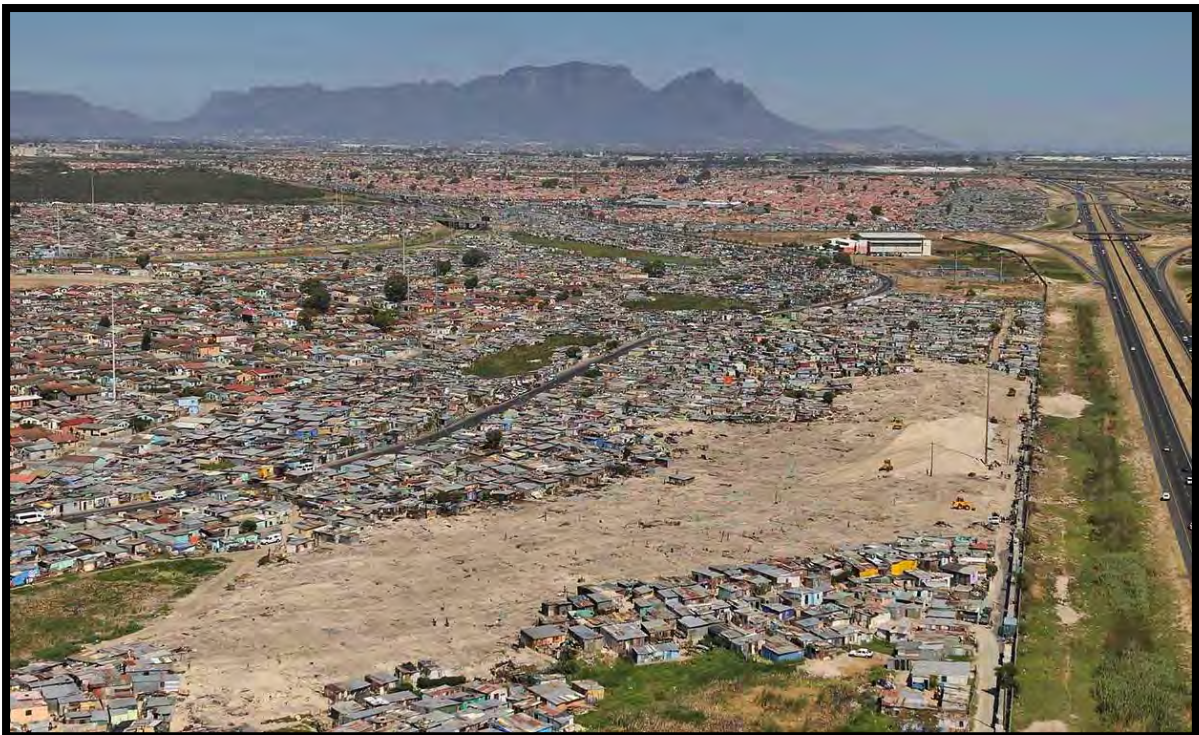


Figure 29: Photographer Rodger Bosch captured the immediate aftermath of a 2013 fire (top) that tore through Sections D, E and F of BM informal settlement on New Year’s Day (AFP, 2015). Residents said that a resident in D Section had accidentally started the fire after he had fallen asleep while preparing himself an early morning meal at about 4AM. Gale-force winds subsequently blew embers throughout the settlement, and sparked a blaze that ultimately burned down 840 homes and left 3,000-4,000 people homeless (Cape Argus, 2013a). The City removed most of the debris (bottom) several days after the devastating New Year’s day fire (CoCT, 5 January 2013).

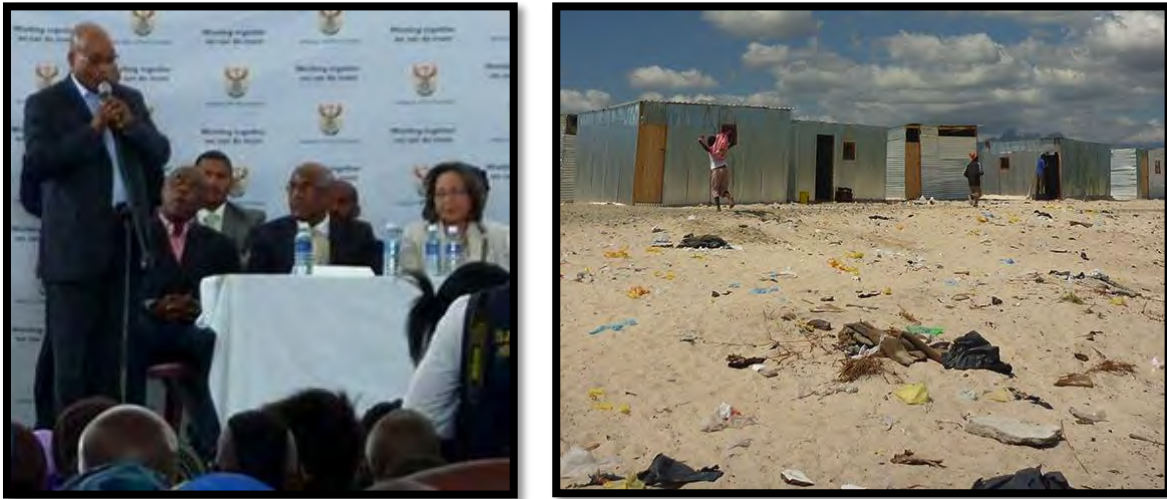


Figure 30: South African President Jacob Zuma spoke to BM’s fire victims at OR Tambo (Mew Way) Hall and said he would monitor the delivery of housing to those affected by the New Year’s day fire (left). By March 2013, approximately 200 households used materials provided by the City to temporarily re-settle (amidst rubble from the fire) in BM’s BV Section (right) (Taing, 15 February & 6 March 2013).

6.2 Janitorial services (2011-2012)

6.2.1 Agenda-setting (2011-2012)

On 28 September 2011, Mayor de Lille (2011) launched the R138 million ‘Mayor’s Special Job Creation Project’ that would employ 8,000 people in a ‘community based operation and maintenance programme’ during its first phase. She noted then that tasks—such as clearing riverbanks of invasive species and maintaining toilets in informal settlements—would be undertaken by the unemployed ‘in historically neglected areas’, so that: (a) the City could help provide ‘temporary relief’ for ‘their circumstances’; and (b) the workers could help improve the ‘city and the communities within which they live’ (de Lille, 2011). Mayor de Lille (2012b) later set the agenda for the new janitorial programme, which she claimed was ‘a first in South Africa’, by outlining the City’s intentions of:

- Hiring informal settlement residents as janitors to clean water and sanitation facilities daily; fix minor faults and report when major repairs are needed; and ‘help educate communities on how to properly care for and utilize communal toilets’;
- Funding the new workers’ salaries with the national government’s *Expanded Public Works Programme* (EPWP) job creation grant; and

- Collaborating with ‘community organizations that are willing to assist in finding solutions that benefit all residents of Cape Town’.

The ‘Mayor’s Project’—as it was popularly referred to by CoCT officials, civil advocates and EPWP janitors alike—significantly set a new policy precedent whereby the City accepted full responsibility for the off-site and on-site duties of the communal facilities that it installed in informal settlements. What follows is a description of the initial implementation of the janitorial initiative and the City’s official operational policy. I thereafter discuss the concerns that a civil society organisation, janitors and residents have expressed with regard to the general state and method of sanitation delivery in Khayelitsha.

6.2.2 Implementation & policy formulation (2012-2013)

6.2.2.1 Directive & precedent (2012)

‘The project was dumped on us, but we did ask for it’ – A WSISU official, reflecting in August 2012 on the unit’s notification of the Mayor’s Project.

While Mayor de Lille (2012b) claimed that the janitorial service was ‘a first’ in the country, in actuality:

- Officials in Overstrand Municipality had established such a service for its waterborne informal settlement services in Hermanus by 2007 (Taing et al., 2014: 43); and
- Durban’s eThekweni Municipality had implemented the caretaker component of its communal ablution block services by 2009 (Lagardien et al., 2009a, 2009b).

WSISU had likewise piloted a janitorial service at its mobile sanitation unit in Pooke se Bos and seven ablution blocks in Khayelitsha since 2009 (Taing, Armitage, et al., 2013: 77). In each of these instances, the municipalities undertook the on-site responsibilities because the costs of rehabilitating and replacing damaged community-managed toilets were higher than administering a daily janitorial service for these informal settlement facilities.

In general, the majority of WSISU officials were of the position that communal facilities provided by the City to informal settlements required a concomitant janitorial service. These officials, however, said that, prior to 2012, there was a lack of political will in the City to establish a cleaning service for flush facilities. This reluctance was supposedly

due to the lack of funds in an already over-stretched operating budget. But besides from both senior and junior officials indicated that many wanted *Free Basic Sanitation* beneficiaries to behave like ratepayers by maintaining the toilets that they used. Because of this viewpoint, a WSISU official highlighted in 2011 that communal flush toilets were the only sanitation option that the City provided to informal settlements that lacked a corresponding municipal cleaning service. This suggests that both municipal rules and a civil servant's personal 'value system' can influence implementation as Maynard-Moody and Musheno (2003: 3) found.

In spite of this reluctance to provide janitorial services for flush toilets, a WSISU official had attained funding to employ community workers at seven ablution blocks in Khayelitsha after successfully arguing that the recently rehabilitated facilities had fallen into disrepair due to unreliable community management. WSISU officials essentially treated the Community Workers janitorial programme as a side project, and bided their time until an opportunity arose that would enable the widespread application of such a service. Mayor de Lille's realisation that the City was underutilising its national EPWP grant in late 2011—along with SJC's (2011) timely critiques of informal settlement services—seemed to provide the political impetus WSISU needed to implement a citywide janitorial service.

In early 2012, the City's political leadership and senior management decided to implement the Mayor's Project janitorial programme. WSISU officials stated that the mid-level W&S manager who oversaw the unit had informed them of this decision in late-March 2012, and directed them to set it up by the end of the financial year. Given that the financial year ended in three months' time, several WSISU officials—who had not been involved in the decision-making or planning process of the Mayor's Project—said that the janitorial programme had been 'dumped' on them. Nevertheless, one official acknowledged, 'we did ask for it', as they had long supported having a cleansing service for flush toilets. They hence started setting up the initiative—focusing particularly on the programme's administration.

Recognising that executing the Mayor's Project was beyond WSISU's then capabilities, officials said they immediately requested more administrative support to hire and support new workers and procure additional resources upon receiving instructions to implement the citywide janitorial service. The new programme was largely set-up 'from scratch' during the 2012/2013 financial year with grants from the National Treasury (R2.3 million) and Department of Water and Sanitation (R26 million) (CoCT, 2013g). Officials said they used the grants to hire and train new personnel; rent vehicles; and purchase office items (such as computers and furniture), uniforms and cleaning equipment for the new initiative.

WSISU's take-up of the Mayor's Project notably followed the system it used for its Community Workers programme. This replication was pragmatic; officials had to quickly accommodate the Mayor's Project janitorial initiative within its 'structures and systems' (CoCT, 2013g), and an easy way to ensure that was to model it after a programme that already followed 'the culture of the city'. Put simply, the Community Workers programme was a 'working model'. For example, officials set-up the Mayor's Project so that its new workers also maintained records: (a) on the citywide digital database, to follow official municipal policy; (b) on Microsoft Excel spread-sheets, for the unit's day-to-day monitoring; and (c) as physical documents, for the City's paper trail¹¹³. While keeping three filing systems might seem cumbersome and inefficient, a WSISU official explained that they had to adopt an administration system that certainly met the requirements of internal and external assessors, because 'we will be audited, especially with the Mayor's name on the project'. And it seems that following precedent had paid off, as their records passed an inspection three months after the new programme's implementation, and again in November 2012.

Interestingly, WSISU did not integrate the Mayor's Project into the unit's day-to-day operations, for officials had created separate administrative and reporting lines for the new janitorial service. From 2012 to 2014, for example, WSISU had two faults reporting teams: one that supported the unit's 'normal' operations and the other which only handled complaints from the Mayor's Project. The division seemed to be rooted in the type of staff funding that the two initiatives had. While WSISU could accommodate the cleaning service for eight communal facilities as extensions of its permanent employees' daily responsibilities, the unit required a new cadre of staff for the Mayor's Project. Senior officials, however, said that the City could ill-afford permanent salaries and benefits for the hundreds (and eventually thousands) that would be employed for the new janitorial service. Labour law expert Jan Theron (2013: 11-12) explained that there tends to be a 'substantial difference' in salary and 'social wages' (such as medical and retirement benefits) between a fixed-term contract worker and permanent municipal employee doing similar work due to the former not being 'represented or covered by... collective agreements' related to remuneration. The City hence staffed the Mayor's Project principally with temporary workers on fixed-term contracts. WSISU's (2013) permanent staff oversaw these new workers, and who were hired as:

¹¹³ A CoCT (2013d: 15) internal publication elaborated on the significance of a paper trail, for 'Most municipal functions involve reams of documentation... Documentation relating to use of public monies and administrative decisions must be available for public inspection at any time. Many documents must be kept literally forever... [and] they must also be available on demand.'

- HR, procurement, faults administration and day-to-day operations clerks. WSISU initially retained them via labour brokers before employing them on EPWP contracts.
- Janitors in informal settlements on six-month contracts. CoCT funded the janitors' contracts from its EPWP grant.
- Site supervisors to: (a) monitor janitors' performance, which included the completion and collection of daily timesheets and inspection sheets to verify the janitors' physical presence at the toilet facilities throughout a work day; (b) distribute clothing, tools and cleaning chemicals; and (c) report service faults from their site inspections. Like the clerks, WSISU had used labour brokers to employ the supervisors prior to their transition to EPWP-funded contracts.

In addition, EPWP operations assistants hired by the W&S depots supported WSISU's new janitorial programme as technical hands. Ultimately, WSISU's experience from its Community Workers and Mayor's Projects programmes informed the W&S Department's operational policy for informal settlement janitorial services. The *Systems Procedure* had purportedly been drafted in October 2012 and officially adopted by the W&S Department on 17 July 2013 (CoCT, 2013h: 5). I next discuss the five-page document that outlined the programme's protocols.

6.2.2.2 System Procedure: Janitorial Services (2013)

The *System Procedure* referred to the janitorial service as a 'pilot project' and 'high priority programme' that had been established to improve sanitation conditions in informal settlements. Officials drafted the *System Procedure* to ensure that CoCT (2013h: 1) provided 'the best possible service... within the City's allocated budget', and note that 'Wherever a communal facility is provided, it is the intention of the department to provide janitorial services'. In reference to the budget, the *System Procedure* stated that the janitorial service would be funded from the informal settlements operations budget. It also discussed the:

- **City's service standard:** CoCT (2013h: 2) 'will endeavour to provide' the following as an 'interim' service: A daily 5:00 to 21:00 service with a 'ratio of 1 janitor per 25 toilets with a servicing ratio of 1:5 households'.

- **City’s programme scope:** CoCT (2013h: 3) would employ janitors to: (a) clean ‘the toilet pan, the floor, the cisterns, the inside and outside toilet structure walls and [two metres of] the surrounding area of the toilet facility’ in informal settlements; (b) repair ‘minor faults’ and report major breakdowns; (c) provide management with statistics and ‘regular feedback’ concerning the quality of sanitation services; and (d) monitor ‘the quality’ of cleansing of un-sewered facilities in settlements where CoCT contracted municipal contractors to provide ‘complimentary’ services. ‘Subject to availability’ of funds, CoCT (2013h: 3, 2) would also provide the ‘public’ ablution blocks with toilet paper and arrange for after hours security.
- **Janitors’ selection, training & working hours:** CoCT (2013h: 3) would follow the EPWP’s recruitment and selection policy by identifying potential candidates through its Jobseekers database¹¹⁴. The selected janitors would receive ‘on the job training’ that would cover ‘aspects of hygiene, use of equipment, fixing basic faults (e.g. misaligned cistern floaters), etc.’ (CoCT, 2013h: 3). Moreover, W&S officials would establish a shift system for workers to support a daily service (CoCT, 2013h: 5).
- **Janitors’ protection & materials:** Janitors would be inoculated ‘prior to being deployed’, and provided personal protective equipment (PPE) such as overalls and the tools and materials needed to clean facilities through the duration of their employment contracts (CoCT, 2013h: 3). Janitors would store the equipment and materials they received, and WSISU officials would issue weekly re-supplies (CoCT, 2013h: 5).
- **Key project roles:** W&S would be ‘the custodian of the janitorial service’, which involves preparing the budget; recruiting, selecting, training, deploying and monitoring janitors; providing workers with PPE and equipment; and reviewing the quality of services with stakeholders (CoCT, 2013h: 4). City Health would ‘provide its traditional and legislatively mandated monitoring role’ by sending W&S officials inspection reports on the janitors’ ‘quality of work’ (CoCT, 2013h: 4). On the presumption that ‘Community buy-in is important for the success of this program’, W&S said CBOs could: educate ‘communities on responsible behaviour’; mobilise ‘corporate resources for the provision of toilet paper or other useful contributions’;

¹¹⁴ A CoCT (2012d) register of unemployed persons who are interested in attaining short-term work contracts on a municipal project in their area of residence. CoCT (2012d) encourages potential jobseekers to ‘update their records regularly at their local Subcouncil’ office, as a jobseeker is selected ‘on a random basis’ and only ‘notified via telephone of a possible opportunity to be employed’.

assist with monitoring; and act as a ‘General community liaison’ or project facilitator (CoCT, 2013h: 4–5). These CBO responsibilities are akin to what DWAF had envisioned for civil society groups (Sections 4.3.2 and 4.10.3).

This operational policy was eventually at the centre of a dispute between the City and its community partner, the Social Justice Coalition. The next section describes their dispute.

6.2.3 SJC-CoCT dispute (2010-2014)

6.2.3.1 Different benchmarks & methods

SJC is an advocacy group that focuses on safety and security concerns in Khayelitsha. The organisation, according to its former Coordinator Gavin Silber (2012: 10, 9), was founded as a ‘community movement’ in 2008 to ‘address some of the root causes’ of violent xenophobic attacks that ultimately displaced 60,000 Cape Town residents. Silber (2012: 12) explained that SJC’s interest in sanitation stemmed from its members’ physical safety fears: many claimed ‘that using a toilet is the most dangerous activity for people living in informal settlements’. SJC (2013c: 27) eventually broadened the focus of its safe sanitation campaign to include general concerns of accessing clean and functional toilets as ‘a basic human right’. For instance, in 2010, SJC (2010c) hosted a ‘toilet queue’ in association with Human Rights Day¹¹⁵ at the public toilets of an affluent seaside neighbourhood ‘to draw attention to inequality and indignity’, for these

public toilets are cleaned and maintained regularly by a dedicated caretaker, well lit, and monitored frequently by security personnel. This is in stark contrast to Khayelitsha’s public toilets, which are unsafe, never cleaned or maintained, nor provided with the luxuries of toilet paper or a simple toilet seat.

Moreover, the advocates (albeit mistakenly) inferred that the City had violated the minimum toilet-to-household standard required by national government. In response, the then Mayoral Committee¹¹⁶ Member for Utilities criticised SJC for:

- Comparing Sea Point’s public toilets to Khayelitsha’s community-managed facilities;

¹¹⁵ A national public holiday that commemorates a 1960 police massacre of anti-apartheid protesters. It takes place annually on 21 March.

¹¹⁶ Like the President’s Cabinet, the Executive Mayor of Cape Town has a Mayoral Committee comprised of Ward Councillors. The Mayoral Committee Members are the political counterparts to the Directorates’ Executive Directors.

- Organising a protest that overlooks ‘the reality of uncontrolled urbanization, limited resources for local government and the fact that Cape Town is performing better than other metros’; and
- Inferring that CoCT (2010e) had not provided ‘access to toilets in townships’.

The advocates’ rationale for the toilet queue and the Councillor’s response suggest that SJC and CoCT were using different criteria and scales to analyse the City’s implementation of *Free Basic Sanitation* in informal settlements. Based on their critique of municipal sanitation facilities and legislation, it seems that SJC regarded basic service provision in terms of: (a) the City’s inequitable distribution of public resources for the management of shared toilets in formal and informal areas of Cape Town; and (b) the local authority not meeting national regulatory standards. SJC hence used a grassroots micro-level of analysis by focusing on area-based services in the city, and a hierarchical macro-level method when questioning whether the local institution followed its national counterparts’ minimum requirements. CoCT’s (2010e) leadership, in contrast, was of the opinion that the City: (a) was out-performing other metros; and (b) had adequately met its sanitation access obligation in light of its budgetary, environmental and programme constraints. This reasoning suggests that CoCT’s leadership considered informal settlement servicing from the pragmatic perspective of juggling a diverse range of issues simultaneously, and judged its performance to that of its equals (i.e. other local authorities) on a meso-level.

Unfortunately, subsequent exchanges between representatives of the two organisations suggest that they had not found a middle ground to their different positions in benchmarking and levels of analysis. For example, SJC claimed that the then Mayor was ‘defensive’ about CoCT’s services in Khayelitsha (Mail & Guardian, 2011), and labelled the advocacy group’s actions as ‘dubious’ or being ‘politically motivated’ (Silber, 2011). Municipal suspicions of the advocacy group’s political motivation was likely tied to the then DA-led administration’s general mindfulness of making mistakes that the ANC party (and its associates) might exploit in the run-up to the May 2011 local government election. Many South Africans remember it as the ‘toilet election’ or ‘poo war’, because sanitation to the poor was the main topic of debate amongst the country’s predominant parties (Figure 31). Cape Town’s Makhaza open-toilet scandal (see Figure 3) was at the centre of this debate, with the ANC highlighting it as an example of the DA’s disservice to the poor.

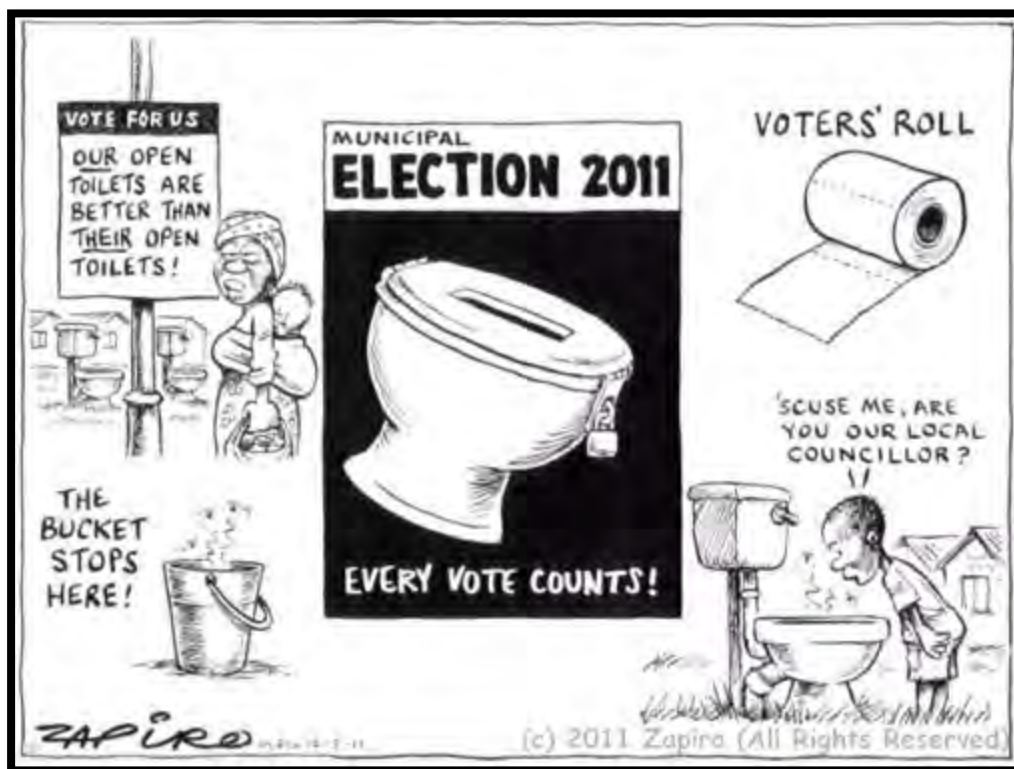


Figure 31: Cartoonist Zapiro (2011a) panned the ‘shit-slinging’ between the DA and ANC political parties during the 2011 municipal ‘toilet election’ or ‘poo war’ as ‘low-electioneering’ (top). Zapiro (2011b) also noted the irony of the DA and ANC ‘calling the other pot brown’, as both parties had local administrations that provided toilets without top-structures (e.g. open-toilets) to the poor (bottom).

In response to CoCT's negative response to SJC's activism, SJC tried to dissociate its advocacy from local party politics. Silber (2011), moreover, attempted to extend an olive branch by acknowledging that Cape Town residents should collaborate with the City, for the 'job of governing is not an easy one' and 'cannot be done alone'. Silber (2011) added that the

Government in turn must realise that to deny that challenges exist, to fail to appropriately acknowledge errors or apologise when mistakes have been made, to insinuate that people are lucky to have the little they have because things are worse elsewhere and to treat people as collateral in a broader political battle for power is insensitive to the daily suffering of people and evasive of the legal obligations of local government.

On some of CoCT's past errors and evasiveness, SJC has highlighted:

- The City's 'egregious maladministration' of public resources—especially when regulating municipal sanitation contractors (SJC, 2013d: 25);
- The challenge of holding anyone accountable, for 'just working out who was responsible for what and getting them to do their job proved to be a nightmare' (Mail & Guardian, 2011); and
- Having to file multiple applications under the *Promotion of Access to Information Act* (RSA, 2000b) to get hold of municipal policies, standing tenders and reports, for officials refused to share these documents (Silber, 2011; SJC, 2013d: 9).

CoCT's then government did not take kindly to SJC's criticisms and disregard of its administrative and political constraints. SJC, however, was able to re-negotiate its relationship after the 2011 election brought a new Mayor to power. The association between Mayor de Lille's administration and SJC seemed positive initially, as she had:

- Participated in SJC's September 2011 sanitation summit to discuss 'joint plans for improving sanitation conditions in informal settlements' (Ndifuna Ukwazi, 2014);
- Recognised SJC's impact, by crediting the janitorial service's launch to their 'mutual co-operation and genuine desire to improve service delivery' (de Lille, 2012b);
- Consulted the group when developing the janitorial programme (de Lille, 2012a); and
- Purportedly asked SJC (2013a, 2013c) to help formulate the City's policy and 'assist with monitoring' on-the-ground.

But, in spite of both parties' purported commitment to improving sanitation in informal settlements, their positive engagement seemed to be short-lived—as both publicly aired their differences on the janitorial programme by September 2012 (Cape Times, 2012a, 2012b, 2012c; CoCT, 2012a; Groundup, 2012; SJC, 2012). Mayor de Lille (2012a) eventually conceded on 3 October that the City had 'not managed this programme effectively', after an 'extensive review' of the janitorial roll-out—which included evidence presented by SJC—had revealed problems with: (a) monitoring, training and procurement; as well as (b) there being 'little or no provision' made for community consultation. The Mayor subsequently 'apologise[d] to the affected communities' for the shortcomings (de Lille, 2012a). Given the scale of the Mayor's Project, Mayor de Lille (2012a) remarked that 'it often takes considerable time to ensure the proper functioning of such measures', and that

the City is determined to address these identified weaknesses, in conjunction with the SJC and other relevant role-players.

SJC advocates though seemed to have not been reassured by the Mayor's October pledge of working together, for they related in November/December 2012 that CoCT refused to share a report on janitorial services that had been prepared by a municipal consultant (IDT, 2012) and a draft of the aforementioned *System Procedure* policy with them. Moreover, SJC (2013b, 2013c: 2) claimed that there had been 'repeated failures by the City and Mayor de Lille to meet their commitments'—such as a December 2012 promise to provide 'a formal timeframe' for developing a janitorial services policy and implementation plan by January 2013. Frustrated by the City's lacklustre services in Khayelitsha and its unfulfilled promises, SJC (2013a) organised a peaceful march on 25 June 2013 to deliver a memorandum that gave the Mayor two weeks to meet the following 'three demands':

- 'Fix outsourced services... that fail to deliver', by preparing and disseminating 'a detailed plan' that explains how the City will oversee and review its contracts;
- '[S]top the indignity of having to use a bush', by specifying a 'plan for the delivery of new sanitation facilities'; and
- Deliver a 'timeline... for the development of a policy and plan' for the janitorial service that includes 'provisions for the sufficient meaningful participation by citizens, civil society and experts'.

SJC's demands infer that the advocates expected CoCT to adopt a formal planning approach by having officials articulate their objectives and methods for the janitorial programme in a written plan, that could thereafter be critiqued by external parties prior to its implementation as part of a consultative planning process. Their emphasis on the need for a formal planning process seemed to be related to their assertion that the janitorial 'service continues to face numerous challenges to its effective implementation' that 'persist' as a 'direct result' of the City not having an operational plan and policy for it (SJC, 2013b). For example, on 13 July 2013, SJC publicised the following 'major shortcomings' with the janitorial programme that the organisation had detected in the preceding six months:

- **The City's lack of transparency & inadequate processes:** SJC (2013c: 3) noted that it was 'unclear' whether a municipal consultant remained involved with the janitorial service, and that residents were confused as to whether CoCT employed the janitors broadly from wards or specifically from informal settlements. SJC (2013c: 6) also claimed repairs had not been 'performed adequately', because the City could take up to three months to address such problems.
- **The janitors' contracts & payments:** SJC (2013c: 4, 6) said that it was 'unclear' why janitors recruited between April to July 2013 were 'employed on one month or three month contracts, rather than six month contracts'; and why their Supervisors had 'seemingly permanent contracts' with labour brokers. Moreover, the janitors had reported 'chronic payment failures' of being overpaid, underpaid or paid late from January 2013. Such payment problems, as well as a lack of explanation from the City, 'resulted in protests by janitors' (SJC, 2013c: 3).
- **Janitors' protection, tools & uniforms:** Many 'newly employed' janitors had not received their inoculations, which meant these workers were 'either unable to work or do so with severe risk to their health' (SJC, 2013c: 5). Janitors also often had to share resources because there was a significant lack of PPE and 'insufficient' distribution of tools (SJC, 2013c: 4). With regard to uniforms, each janitor received one T-shirt, blue overalls, a cap and rubber boots, but most had not received rain suits. SJC noted that many janitors—especially those who had to work outdoors during rainfall—were frustrated that the City had not provided rain suits. And, lastly, the supply for cleaning chemicals had been 'haphazard and insufficient', with some receiving chemicals on a regular basis, while others had not received any for several months (SJC, 2013c: 5).

The Mayoral Committee Member for Utilities Ernest Sonnenberg (2013a) conceded that there were ‘some teething problems at the outset’ of the programme. My research in BM Section¹¹⁷ also indicated that the problems that SJC highlighted had occurred. With regard to the second and third bullets above, WSISU officials explained that they had struggled with:

- Securing funding for EPWP contracts that spanned different financial years;
- Training new supervisory staff every six months—which necessitated the arrangement of different contracts for the janitors’ supervisors (as well as the temporarily-hired clerks);
- Administering remuneration given the medley of issues that affected payment—such as having to adopt an inefficient process that followed EPWP’s rules, a payroll provider’s accidental over-payment, some janitors not being present during attendance and receiving timesheets late;
- Obtaining enough resources for operations in light of the City’s pre-approved annual budget (which did not include additional provisions for the quickly-expanding programme), as well as their failure to notice procurement mishaps made by new staff who underestimated the City’s lengthy purchasing process; and
- Determining the appropriate amount of clothing for short-term workers, given that janitors’ contracts spanned different seasons and the City technically had to collect and incinerate returned items due to hygiene concerns.

WSISU officials’ explanations suggest that a lack of formal planning did not cause the programmatic challenges that SJC highlighted. Rather, the officials asserted, they could not have foreseen many of the implementation and management challenges of the complex operation because the eventualities they faced were unexpected, and the conditions they worked in were constantly changing. Put differently, the officials learned on-the-job that there was little point to rationally pre-planning tasks, for their informal settlement plans were often derailed by ‘social dynamics’ at the City and in the community.

Moreover, many officials responsible for informal settlement development disclosed that they have tried following the City’s official policies and practises for formal areas in their projects. For example, an official—who was not involved in the janitorial programme

¹¹⁷ See Section 3.6 of the Taing et al. (2014) report.

but provided informal settlement infrastructure—had confided that he often referred to municipal policy when motivating upgrading processes with his superiors:

I would argue, ‘The policy says you can do this’. But they would say, ‘Yes, well—this is how we did it before’. So we went by precedent.

Upon reflection, municipal implementers (including the one quoted) referred to informal settlement planning at the City as being fundamentally ‘informal’ in nature—for they executed services based on the ‘precedent’ of addressing day-to-day problems as they arose. And these unforeseen problems, changing conditions and the pressure to rapidly provide services according to previously accepted practises obliged them to continue reacting and fire-fighting in the ad hoc manner that they (and organisations like SJC) detested.

I also suspect, based on my observations of the municipal policy process, that some of the City’s reluctance to further breakdown project tasks according to predetermined schedules was linked to the professional background and personal experience of its ‘policymakers’. In general, I observed that CoCT’s official policies tended to be written by those in desk-based roles in the offices of political leaders or departmental planning units. These municipal policymakers might be familiar with the City’s general institutional problems, but their knowledge and experience was far removed from the daily operations of managing infrastructure in informal settlements. This distance could be problematic when they prepared policy for implementation, as the following example shows.

Mayor de Lille (2012b) had said that Mayor’s Project janitors would receive ‘basic plumbing’ training upon being hired, and the W&S *System Procedure* (which was drafted by a mid-level manager) noted that these janitors ‘will be responsible for the maintenance of minor faults’ (CoCT, 2013h: 2). While it is practical to assign janitors with this task, W&S implementers actually hired janitors to specifically clean informal settlement facilities and operations assistants to specially support its O&M teams with plumbing problems instead. The implementers, who might not have been aware of the policymakers’ intentions to give the janitors more responsibilities, said that they had structured their hiring after their extant structure and operations. For instance, WSISU’s M&E officials supervised the janitors hired in the EPWP scheme, and the departmental depots oversaw the operations assistants. This example indicates why it might be illogical to have policymakers (who are detached from day-to-day operations) write implementation-related policy.

Why can the implementers then not formulate their own task-based plans like SJC demanded? The implementers' inability to prepare policies might again be a problem of professional background and personal experience. Many of the municipal sanitation implementers I met had an aversion to writing, because they considered themselves to be:

- Hands-on 'technical' staff that should be 'on-site' designing and constructing infrastructure, rather than behind a computer or negotiating sanitation 'politics'; or
- Ill-suited (as engineers) to write socially oriented policies or due to English being their second or third language.

These comments and observations suggest that CoCT had not transformed its ad hoc approach to informal settlements after ten years (see Section 5.1.3) because it was the implementers' preferred problem-solving method for unforeseen situations and senior officials' preferred to follow precedent. Additionally, there is a municipal policymaking gap that is rooted in the organisation's division of 'policymakers' from 'implementers'.

So why did the officials not simply explain their differences in planning and policy constraints to SJC? Several WSISU officials said that they wanted to work with the group to improve informal settlement conditions. Each official though was wary of interacting and communicating with SJC due to concerns that the group might leak their off-hand comments to the media. These comments, if traced back to them, could lead to a severe reprimand from their manager. Their guardedness was further influenced by their manager's instruction that all inquiries be directed to the City's political leadership, who were concerned that 'sensitive' information concerning sanitation services and housing development could potentially be used against the administration as 'political dynamite' in the following contentious protests:

- **The Sannicare labour dispute:** This protest was allegedly over wages between a municipal contractor and its workers who collected and cleaned un-sewered container toilets (Cape Times, 2013a; news24, 2013). The on-going dispute resulted in the disruption of sanitation services and destruction of public property in some informal settlements (Figure 32), as well as traffic blockades on the N2 highway on 20 May (Cape Times, 2013c) and 27 June 2013 (SABC, 2013). Due to this dispute, the City: (a) filed court interdicts against 89 former Sannicare workers and seven ANC Youth League associates from disturbing municipal services and property (CoCT, 2013a);



Figure 32: Sannicare-related protests: Wafeeq Manuels photographed his colleagues while they cleaned the contents of dumped container toilets and extinguished fires after a protest (top). It took place on 10 June 2013 opposite Kanana and Barcelona informal settlements. The bottom photograph by Lulekwa Mbadamane depicts the aftermath of a five-hour protest on the N2 highway (SAPA, 2015).

(b) re-assigned some of its staff from 6 April to undertake its contractor's servicing tasks as an 'interim' measure; and (c) deployed law enforcement to specially patrol the N2 highway to prevent further protests on the national artery and protect its workers from a 'small number of disgruntled striking workers' and 'community members' who had intimidated Council staff by burning their vehicles and stoning or attacking them with *pangas* (knives) (Cape Argus, 2013b, 2013c; CoCT, 2013b);

- **The Ses'Khona protests:** As noted in Figure 1, this group protested the provision of un-sewered informal settlement services by dumping the contents of un-sewered toilet tanks: on the steps of the Western Cape Premier's offices on 3 June (Cape Argus, 2013d); at a vehicular convoy that included the Premier on 4 June (SAPA, 2013b); and in an airport terminal on 25 June (Cape Argus, 2015). A representative of the Premier alleged these acts were associated with the ANC Youth League's un-governability campaign ahead of the 2014 elections (SAPA, 2013c).
- **The Marikana occupation:** From April to August 2013, there were several violent confrontations between a government anti-land invasion unit and the residents of a new informal settlement situated on private land earmarked for development (SERI, 2014). A Marikana resident said she was aware that it was 'private land, but we will not move' until the City provides alternative housing for all of the settlement's occupants (BDlive, 2013). CoCT (2014b) 'condemn[ed] the large-scale, orchestrated and damaging land invasion', and said that the 'land-grab' seemed to be part of a broader campaign of 'lawlessness... in an attempt to make the city ungovernable'.

In light of these highly-publicised disruptions that required the re-allocation of limited public resources, Councillor Sonnenberg (2013a) remarked in a 25 June press statement that

It would be helpful if the SJC used their resources to assist the City by encouraging the community to desist from violence thereby helping people to receive desperately-needed cleaning and maintenance services in their areas.

Like its earlier response to the previous DA administration's suspicions of its political motivations, SJC (2013a) distanced itself from 'unlawful acts' such as Ses'khona's protests, and noted that such acts 'are aimed at generating publicity'. SJC (2013a), in contrast, wanted to improve Cape Town's sanitation situation by 'constructively' engaging with local government, but stated that Councillor Sonnenberg's press statement mostly attacked their

‘credibility’ as part of ‘petty politics’, and did not address the ‘substantive issues raised in our memorandum’. The advocates remained dissatisfied with the City’s response to the complaints that they had repeatedly raised, so SJC appealed in August 2013 for support from local religious leaders who could ‘afford to cut out all the politics’ and bring ‘moral authority’ to the sanitation debate (GroundUp, 2013). The timely intervention from religious leaders provided a chance for the two parties to overcome their ideological differences in benchmarking and planning. I discuss the religious leaders’ consensus building attempt next.

6.2.3.2 Mediation & professional differences

On 27 November 2013, 86 ‘prominent’ representatives of the ‘faith community’ expressed their concerns over the use of violence ostensibly as a means to improve service delivery to the poor across the nation (Cape Times, 2013d). In particular, they alluded to disruptions related to the ANC-DA rivalry in Cape Town, which they explicitly deplored as

blatant attempts to make the [Western Cape] province “ungovernable” simply because certain elements disagree with the democratic choice of the majority in that province (Cape Times, 2013d).

Calling these violent protests an ‘assault on democracy’ and ‘anti-democratic behaviour’ that ‘disrespects and denies the dignity of individuals’, they proposed that dissenters constructively engage with government to improve services (Cape Times, 2013d). As examples of such engagement, the Western Cape Religious Leaders Forum (WCRLF):

- Asked that Ses’Khona’s leaders peacefully express their discontent with informal settlement conditions on a ‘Walk of Witness’ (Mail & Guardian, 2013);
- Encouraged the DA’s political leaders to reduce the housing and servicing bottlenecks by redesigning local budgets and provincial systems, and applying for additional national funding and support (Cape Times, 2013e).

The WCRLF also helped facilitate the dispute between SJC and CoCT. This mediation led to the organisation of a Janitorial summit (SJC, 2014b). In its invitation for the event, SJC (2014b) noted that the advocacy group, the City and the WCRLF had

- ‘[A]greed that one of the key outcomes of the summit would be the development of the implementation plan’, and that

- Summit attendees would base the implementation plan on the City's *System Procedure* (see Section 6.2.2.2) and its *Project Initiation Document* (PID). Councillor Sonnenberg (2013b: 1) explained that the 'PID is a funding application document required for all EPWP programmes', and its purpose is to 'motiv[at] for financial resources based on the foreseen requirements of the programme'.

The City hosted the Janitorial summit on 28 February 2014, and interested actors (such as researchers like myself) attended the proceeding that the WCRLF chaired. The Mayor opened the event by stating the City would 'work together' with communities, advocates and universities in partnership, on the presumption that 'only through mutual collaboration can you face the challenges in this city'. Mayor de Lille further commented on the relationship between CoCT and SJC, noting that:

The City and SJC have had our disagreements in the past. And we likely will have some in the future. But I think it's good to keep us on our toes... Because as a City we don't have all the solutions, and we need to find a solution to the challenges we are facing today. By bringing all of those ideas and solutions together, we can then make sure of finding a balance to move forward.

Finding a 'solution' for moving forward that both the City and SJC agreed upon, however, proved to be far more difficult the organisers had anticipated. The event—which was supposed to run four hours long, ended two hours later than scheduled. From my understanding, CoCT and SJC had different interpretations of what constitutes an implementation plan. The City's officials conveyed that they understood an implementation plan as being a statement of intent that ensures financing for a proposed project. Put differently, an implementation plan was essentially a *PID*—as the funding application enabled the City's execution of its planned activities, the procurement of resources it needed and the training it would provide over a one-year period (Sonnenberg, 2013b: 4, 5).

SJC's representatives challenged the City's definition—with one advocate explicitly stating that an implementation plan is not a 'financial document'. The advocates tried to convey that a janitorial service implementation plan should specify: (a) the City's operations process at its offices and informal settlements; (b) the precise number of actors involved in the programme; (c) the tasks that these actors are responsible for according to a predetermined schedule; and (d) the exact resources that the City would provide to its workers. A stalemate subsequently transpired between the two parties because:

- The CoCT officials did not fully comprehend how their conception of an implementation plan differed from what SJC’s advocates had requested;
- The SJC advocates, in turn, were unable to articulate why these documents were not an operations manual that could be used for monitoring purposes; and
- The WCRLF facilitators seemed unable to reconcile what they perceived as a ‘clash of language’ between the City and SJC.

Clearly frustrated after numerous rounds of circular argument amongst CoCT officials and SJC advocates, the City’s senior-most W&S official suggested that they convene a separate committee to discuss their differences and devise a process for going forward with the implementation plan. Her political counterpart suggested that the committee revise the existing *PID*, by adding material that addressed the janitorial services’ operations ‘gaps’. The Councillor added that the *PID*’s revision would also allow the City to motivate for further funding. Several CoCT officials and the WCRLF facilitators voiced their support for the proposed committee by voluntarily joining it. SJC’s representatives, on the other hand, did not view the proposal favourably, with one advocate stating that,

We didn’t agree that the *PID* would be updated. We agreed that an implementation plan would be produced—a separate document.

In addition to disagreeing to the *PID* update, the advocates said that they could not confirm their participation in the proposed committee. They explained that while their members had elected them to attend the summit, they did not have the authority to make decisions on their behalf. They hence needed to consult their members before joining the City’s new committee¹¹⁸. The advocates, however, cautioned that their members would likely not support the City’s proposal, because they did not trust that the municipality would keep its promises. One advocate, for example, voiced his concerns that it already took

many months to get this summit today... and now, you are not giving us an implementation plan.

In response, the senior-most W&S official stated:

¹¹⁸ SJC’s reasoning is similar to some of the Kosovo Project Steering Committee members’ unwillingness to make decisions on behalf of Kosovo residents without consulting them first (see Section 5.2.2.6).

There is a confusion of language... I don't think it is a problem to draw-up the implementation plan. We have the information but it is in a variety of different places... What we need to continue doing is to continue working in good faith. I think in the end we want the same thing.

A SJC advocate interpreted the official's statement as meaning that 'the City would be willing to put together an implementation plan', and asked that the Councillor confirm his technical counterpart's statement. The Councillor affirmed that CoCT would provide

whatever you call it... I don't have a problem, as long as we agree that it would be based on the availability of funds.

In hindsight, the Janitorial summit's circular debate indicated that the WCRLF—who asked at the beginning of the day that all attendees 'empathise with everyone... in the spirit of *ubuntu*'—had been unable to resolve the City's and the advocates' conflict with its consensus building approach. Similar to the City's failed participatory planning intervention in Crossroads (see Section 1.1) and the social facilitator's unsuccessful dispute resolution in Kosovo (see Section 5.2.2.6), WCRLF's platform was based on the platitude of CoCT and SJC being able to overcome their differences through 'rational' discussions and focusing on their shared aim of improving informal settlement conditions. But the application of the consensus building approach did not touch upon the fundamental professional differences that informed each party's distinct understanding of what constitutes 'proper' planning for informal settlements and 'constructive engagement' with local government.

As noted earlier, CoCT officials regarded appropriate planning for informal settlements as being workable in terms of securing budgets for its foreseen implementation requirements. A good plan should also be broadly framed to give implementers discretion to tailor their on-the-ground operations to particular circumstances when necessary. In contrast to the City's approach, SJC advocates regarded good municipal design as the adoption of a precise implementation regimen that works towards specified goals. Both opinions perceive proper planning in terms of effective public administration, but the former focused on the formulation of flexible and practicable policy for implementers, while the latter encouraged forward implementation planning, whereby a detailed plan could be used as a regulatory tool.

In addition, the public exchanges that followed the Janitorial summit suggest that both CoCT and SJC had different professional understandings of what it meant to 'constructively engage' with one another. For example, on 1 October 2014, SJC published its '*Our toilets are*

dirty' report, to constructively criticise CoCT's janitorial service in informal settlements. SJC (2014c: 4, 5, 11) deplored the service's overall quality—focusing especially on on-going procurement and training issues that put residents' and janitors' health and safety at risk, and said 'a proper plan needed to be developed' for the janitorial programme 'to run smoothly'.

Pillay et al. (2006: 306) noted that the publication of government critiques via the media is a common tactic used by non-governmental policy actors to 'influence urban policy'. However, I generally observed that CoCT officials and political leaders responded negatively to media reports that were critical of the City's performance. I, for instance, recall the air of defensiveness in municipal offices after journalists publicised the *Water Dialogues*' criticism of outsourced un-sewered services in informal settlements (Goldberg et al., 2009), for both officials and leaders were reluctant to share information and collaborate with anyone 'outside the City' thereafter. I hence was unsurprised to read Councillor Sonnenberg's (2014) response to SJC's 'allegations', as he noted his frustration with the group's preference to

utilise social media platforms, and have lengthy report back sessions rather than work with the City to directly improve the lives of residents.

In general, officials expected to constructively engage with external partners in informal settlement projects by sharing project responsibilities with them (CoCT, 2013e; CORC and Ikhayalami, 2011; de Lille, 2013c; Taing, Pan, et al., 2013). A SJC advocate, however, said they refused the City's request to manage and administer the janitorial service in the capacity of a planner, project coordinator or community intermediary, as their skill set lies in political activism. Another advocate noted, SJC would encourage 'CoCT to do its job' and they, in turn, would hold local government accountable to its citizens. While SJC has every right to pursue its advocacy campaign as it wishes, WSISU officials noted that they had trouble establishing a working relationship with a partner that only 'criticises the City'.

The trouble also with SJC's position is its limited conception of what CoCT's job is. SJC's (2014c: 8) critique of the janitorial programme centred on it being a sanitation service when they said the City was not 'progressively realis[ing] the right to basic sanitation' in Khayelitsha. Councillor Sonnenberg (2014) countered that SJC's critique showed a 'fundamental lack of understanding of the programme', which had been implemented to improve service delivery and create 'much needed job opportunities'. Sonnenberg's response underscored that the janitorial initiative had two policy objectives: a sanitation goal and a job creation aim. The second objective is significant to highlight, for my research indicated that

the janitorial services' inclusion in the Mayor's Special Job Creation Project affected its implementation. The next section explores how the short-term income relief component detracted from the achievement of the sanitation-related objective.

6.2.4 Job creation priority (2012-2014)

The data presented in this section discusses the priorities of the workers that supported the City's janitorial programme in BM Section from November 2013 to August 2014. WSISU then supported two janitorial service arrangements for full-flush facilities:

- One group was employed as part of the Mayor's Project to clean the hundreds of flush facilities that lined the back of the settlement; and
- The second set worked at the ablution block as Community workers (Figure 33).

To note, while I focus upon the priorities of the temporarily employed Mayor's Project janitors in this section, I occasionally contrast their experience to that of the permanently employed Community workers. My use of 'temporary' and 'permanent' workers follows the distinctions made between 'non-standard' and 'standard' work arrangements. Theron (2013: 1-2, 6) stated that 'there is no generally accepted definition of non-standard employment' in national legislation but it can be characterised as workers appointed on a part-time and/or fixed-term basis to perform work that does not take place at an employer's 'standard' workplace. A workplace was defined (rather imprecisely) by national government as 'the place or places where the employees of an employer work' (RSA, 1995: 176–177). An example of a person from my research that fits Theron's description of a non-standard worker is a municipal janitor who is employed on a six-month contract and works in an informal settlement instead of an office. What follows is a discussion of the priorities of non-standard workers employed in BM Section as janitors for the Mayor's Special Job Creation Project.

In general, I observed that SJC's aforesaid criticisms of the work conditions for the Mayor's Project were true—as I noticed that janitors in BM Section had:

- Trouble gaining access to padlocked toilets that were 'owned' by households in the on-going community-management model. Many residents that used padlocks said that their toilets were cleaner than those left unlocked. There, however, was a corollary drawback of having the community-managed model operate in tandem with the public janitorial service, as it restricted access to municipal workers throughout the day.



Figure 33: The City installed hundreds of flush toilets and approximately 30 chemical facilities along the back of BM Section near the N2 Highway reserve (top) and the Kuis River (centre). Residents living in Section C, D and BV Sections of BM tended to use these facilities. BM's ablation block (bottom) was used mostly by Section A residents (Taing, 6 February, 4 July & 6 March 2013).

- Not received inoculations, tools, chemicals or replacement PPE items timeously at the beginning of and/or throughout their employment.

The janitors I met in BM Section had expressed their dissatisfaction with these operations problems. Yet, aside from occasional grumbles of some residents being resentful that they were paid to do ‘nothing’, I observed that the janitors were more concerned with the terms of their employment than their health, safety or reputations. Of particular concern were:

- **The ‘peanuts’ they were paid:** The EPWP daily rate CoCT provided for janitors was R120 per day in 2013.
- **Their non-renewable six-month contracts:** Most of the janitors expressed their desire of being employed permanently by the City.

These employment concerns in 2012/2013 are significant to note, for the Mayor’s Project janitors, by and large, seemed only to protest issues tied to their remuneration and fixed-term employment. SJC (2013c: 3), for example, had previously noted that payment failures had ‘resulted in protests by janitors’ in early 2013. I coincidentally observed the implications of a planned protest prior to Easter weekend. Easter in 2013 was the last day of March and the six-month contracts of the majority of BM’s janitors were due to expire then. Many janitors were unhappy with this, and attended a ‘community meeting’ in a neighbouring settlement to plan a protest with the aim of retaining their jobs.

Not all of the Mayor’s Project workers, however, wanted to participate in the protest. I sat with four women who refused to attend the meeting. Sitting in the lounge of one of their homes, they explained that they were hiding from their co-workers, who had allegedly threatened them with physical violence if they did not join the strike and continued to work in their absence. One janitor, whose contract would not end until the end of June¹¹⁹, expressed her frustration with these threats. Holding aloft her broom, she exclaimed that, ‘I am the tata, I am the mama, of my house!’ In other words, she implied that aside from affecting cleansing services for the day, her co-workers were threatening the single source of income she needed to support her family.

The four women interestingly noted that their co-workers were fighting a lost cause, as WSISU officials had explained (in both English and isiXhosa) when each had signed their

¹¹⁹ WSISU stagnated the temporary workers’ periods of employment.

contracts that: (a) it was a temporary six-month work opportunity; and (b) their contracts would not be renewed after its end date. A WSISU HR official explained that they had clearly outlined these contract terms with each EPWP janitor because they could not ‘create the expectation of permanent jobs’. Officials explained that temporary workers hired in a previous non-standard contracting experience had successfully sued the City for long-term employment on the grounds that they had expected permanent job offers after having their fixed-term contracts renewed multiple times. WSISU officials learned thereafter that they could not employ temporary labourers on contracts longer than six months, though they could re-employ the casual labourers after a ‘cooling off period’ of three to six months. The officials subsequently said that they explicitly outlined the start and end dates in the EPWP workers’ employment contracts, and emphasised that a casual labourer could only undertake one EPWP opportunity over a twelve-month period as precautionary measures.

The four women I spoke to nearly a year after WSISU’s implementation of the janitorial programme expressed that they clearly understood that their contracts were temporary. To emphasise this point, they stated that a WSISU official had read every line of their contracts with them, and that their start and end dates were **bolded** in an all-CAPS typeface on their contracts. They each also noted that the HR official explained that: (a) the City would provide a letter unemployed workers needed to apply for state-funded unemployment insurance, and (b) they could seek another EPWP opportunity after a six-month lapse of their contract.

The janitors’ avowed complaints about payment problems and long-term employment indicated that many employed by the City had prioritised the job creation aspect of the Mayor’s Project initiative over the sanitation programme. One could argue that their lack of concern over their challenging work conditions was due to the work of activists such as SJC, who were campaigning on their behalf to improve the sanitation component. But, various engagements with former janitors of the Mayor’s Project have not suggested this, as:

- Many workers in BM personally expressed their indifference about their work conditions and said that they would gladly continue working for the City.
- The Daily Vox (2014) noted that three former RR Section EPWP janitors had similarly wanted to remain employed, in spite of being paid very little to work in difficult conditions.

- WSISU officials reported from 2012 to 2014 that they received requests on a weekly basis from workers about retaining their jobs as their contract end dates neared.

While WSISU could not change the conditions of the EPWP contracts, their day-to-day administration of the programme suggested that the janitors' employment concerns generally were of foremost concern to implementing officials. To them, the Mayor's Project Janitorial programme was successful due to their careful set-up of: recruitment systems; hiring procedures that outlined the City's and workers' contractual obligations; and remuneration systems that improved upon their earlier problems. WSISU officials credited their capable administration of new contracts and payment to their early focus on what they regarded as the new initiative's foundation:

- The clerical structure and organisation, for their experience in an under-resourced unit had taught them the importance of having adequate capacity to support the unit's day-to-day operations; and
- The process of local hiring, for prior provision of limited job opportunities to informal settlements had already shown them that any misstep could result in a violent protest.

On the first point, other municipal departments lauded WSISU for its successful administration of a job creation project. In fact, a senior CoCT EPWP official noted in private at the Janitorial summit that

WSISU's EPWP model of having workers as administrative clerks is unique, and CoCT Corporate Services is now replicating it.

Yet addressing their on-the-ground employment concerns in informal settlements proved to be more challenging. An official said that they were 'careful about wanting to reduce intimidation' amongst residents for the coveted EPWP posts, so they repeatedly communicated that those employed would be randomly selected from the Jobseekers database, and each job opportunity would be 'rotated' every six months amongst those registered on the Database. They, however, also unexpectedly dealt with groups of janitors in 2012/2013 that intimidated them with 'sit-ins'. Protesters during sit-ins sang songs in the foyer adjacent to their offices that named certain officials for either paying them late or denying them long-term work. One official noted in frustration that,

We are at the face and get blamed. I don't want to go to [my informal settlements] because people think I am eating their money up... It's intimidating for the staff.

While the officials eventually resolved the remuneration problems, they said they struggled to rationally convey to dissatisfied janitors the City's policy during the first two years of the EPWP initiative's implementation. WSISU officials understood the financial reasons for strictly employing the janitors on six-month contracts. The programme is not unique in this regard, as Theron (2013: 13) noted that South Africa's public sector tends to hire workers temporarily due to the inordinately high 'fiscal implications' of employing permanent staff under existing labour union collective agreements. WSISU officials also were aware of the previous error that allowed 50 temporary workers to successfully sue the City for permanent posts.

To note though, most of the WSISU officials said that they would have preferred hiring staff on a longer-term basis. For instance, the national EPWP initiative allows local municipalities to employ temporary workers on contracts of up to 12 to 24 months. But CoCT HR officials prohibited them from employing longer-term contracts due to loopholes in labour legislation. For example, an official said national policymakers at an EPWP workshop in 2013 admitted that they were still undertaking legal measures to 'make sure' that EPWP workers are exempt from converting their fixed-term contracts into permanent posts. Administering year-long temporary contracts would have been wholeheartedly welcomed by WSISU's staff, for officials said they were fatigued from managing the constant turnover of casual staff that often resulted in administrative headaches and generally disrupted services on-the-ground. In other words, they intimated that the job creation goal detrimentally affected their operations and service provision.

Regardless of the implementation implications, WSISU officials remained fastidious in their contracts administration—paying especial attention to ensure that none of the workers would become permanent employees due to an error on their part. WSISU's message was not lost to an older BM janitor I had met. Though visibly upset this his contract was coming to end, he upheld, 'We have to share the slices of bread'. Yet, not all of the Mayor's Project workers were as understanding. One official explained that he had repeated requests from unhappy groups of janitors who wanted to have their contracts extended. He always asked that one or two representatives meet him at his office to discuss their concerns, and give him the opportunity to explain the City's policy for the EPWP initiative. More often than not,

however, janitors refused such an arrangement, and demanded that he meet instead with the entire group of workers in an informal settlement. He, in turn, refused to meet on-site, in remembrance of one instance where a group of janitors held their supervisor hostage as leverage for the City to extend their contracts. To the implementers, the best recourse in instances of intimidation were to keep supervisory staff off-site, which affected implementation on-the-ground because the janitors were left unsupported until they accepted their temporary contract terms.

Over time, the dissent to the City's six-month employment rule seemed to subside—perhaps due to WSISU's consistent administration of the six-month employment policy that they had developed. The diminishing dissent to the fixed-term contract allowed WSISU officials to concentrate on other labour concerns in the janitorial initiative. Officials, for example, had expressed their trepidation of implementing the Mayor's Project janitorial programme alongside the Community workers service in seven Khayelitsha informal settlements from the former's initiation. One official explained that some of the Mayor's Project workers were likely upset that they were doing the 'same work' as the Community workers for considerably less pay and benefits. Miraftab (2004) and Theron (2013: 11) had also noted such social concerns in labour arrangements of municipal solid waste collection programmes, as workers employed by government and private contractors had 'equivalent work' but were not 'treated alike'.

I observed that the relationship between janitors employed as part of the Mayor's Project and Community workers programme in BM Section was strained, with the former somewhat resentful of the latter's permanent status. In recognition of this double standard, WSISU discontinued its Community workers programme in August 2014, and gave the former Community workers new assignments in the department's O&M division. Officials noted that one of their main priorities in closing the programme was to standardise its employment and on-the-ground practises, as well as to ensure that workers' low morale did not affect services.

This section chronicled the implementation of a complex sanitation programme for informal settlements in light of multiple objectives. Interviews and observations of WSISU officials suggest that they focused on enacting fair labour practises for its cadre of temporary workers during the first two years of the Mayor's Project janitorial programme's implementation. The priorities of implementers (as well as the residents who were employed) suggest that the job creation goal adversely affected the service-orientation aspect of the

programme. While the programme was meant to improve the quality of informal settlement sanitation services, it seems that the implementers and janitors similarly recognised that the Mayor's Project was firstly a job creation initiative, and secondly a cleansing service. Naidoo (2013: 396, 399) also previously noted the challenge of 'competing policy priorities' in EPWP projects, which appears to be a common problem of 'operationalising shared or joined-up policy mandates in strategic socio-economic development programmes'.

Presented next is the viewpoint of the intended policy beneficiaries in BM Section. I focus especially on residents' practises and their use of municipal services, to understand their perspective of services and identify gaps in policy and provision. As will be shown, this chapter closes with how prevailing residential practises and informal settlement policy and servicing gaps significantly constrain the implementation of BM's sanitation services.

6.3 Residents' sanitation practises & needs (2013-2014)

I surveyed 21 people about how about their daily sanitation, water and refuse removal routines in July and August 2013 to understand how the provision of municipal services affected the lives of informal settlement residents. With regard to their location and gender:

- 13 of the interviewees resided in Sections A, B, C and D of BM. The others had resided in E and F Sections but moved to the newly-established BV Section or the temporary municipal accommodation at Mew Way after the New Year's Day fire.
- 18 of the interviewees were female. The age range of this sample was 14 to 56. My male interviewees were 12, 22 and 67-years-old. I had intended to interview more men but I found that women were more comfortable talking to me.

I next detail the 21 interviewees' various sanitation practises according to their behaviours during the day and night. I distinguish between daytime and night-time practices because 19 of the 21 interviewees indicated that their concerns about physical safety and personal security influenced where they 'relieved themselves' (defecated) after sunset. A table summarising the cell phone survey sanitation data is included in Appendix H. When relevant, I include comments from other BM residents or data gleaned from my participant observation research in the informal settlement.

6.3.1 Daytime toilet facilities

My interviewees indicated that the walking distance between their dwellings to a toilet primarily influenced their utilisation of a municipal sanitation service. The majority of my interviewees (17 of the 21) indicated that the nearest municipal communal facility to their residence was the primary toilet they used in the daytime. For example, two A Section residents used the ablution block located near their homes. The two users said they were happy with the facility, as the City provided toilet paper and a janitorial service.

The majority of residents of C and D Sections (six of eight people) said they relieved themselves in locked flush toilets¹²⁰ that lined the gravel road at the back of BM. This suggests that the community-managed sanitation model (which predates the Mayor's Project janitorial service) is still practised in the informal settlement. Residents explained that the purpose of padlocking the doors was to restrict access to those who have keys and to keep the toilets in 'good working condition' (Figure 34). While toilets in these lock-and-key arrangements did tend to be cleaner and in better condition than the unrestricted 'public toilets', I noted O&M problems with both locked and unlocked toilets regardless. Each of the six aforesaid C and D Section interviewees, for instance, complained that their fellow key holders occasionally did not clean up after themselves. They, however, could not hold anyone accountable because no one could definitively say: how many households had copies of the padlock keys; and who regularly used the toilet, because each allowed anyone to 'borrow' his or her key. One interviewee commented, 'You never know who has keys', for that reason.

Given the general problems with O&M and managing the lock-and-key system, several Section C and D interviewees applauded the City's janitorial service. One Section C resident had remarked on the inconsistency of the service that winter, as she noted that she was 'not satisfied' that 'sometimes you'll find [the toilets] clean, and sometimes you'll find them dirty'. In general though, each of the eight Section C and D interviewees had observed an improvement in the cleanliness of their shared communal facilities.

Those without access to a locked facility seemed to prefer the unlocked flush facilities to the chemical toilets. Only one C Section interviewee explained that she preferred to use the chemical toilets near her home, in part because she did not have access to a locked flush

¹²⁰ Of the 515 flush toilets I counted in a June 2013 tap and toilet count, I found that 313 toilets (61%) had padlocks and 162 were unlocked (32%). I also noted that 38 toilets (7%) had a broken door or lacked one altogether. Two toilets were in use while I undertook the survey so I did not confirm whether they were regularly locked or unlocked.



Figure 34: A toilet in ‘good’ (left) and ‘bad working condition’ (right) (Taing, 11 June 2013). While neither has seats or functional flush levers, my research assistant said the former is considered ‘good’ because it discharges waste as designed.

toilet. Each of the BM interviewees complained that chemical toilets ‘smell’ and requested that the City increase the number of flush toilets in BM. Unable to accommodate this demand, officials increased the settlement’s number of chemical toilets in March/April 2013. Some residents marked their opposition to this increase by tipping over chemical units for several weeks (Figure 35). This behaviour prompted CoCT officials to explain that they intended to rehabilitate the toilets that lined the gravel road, as well as install new flush services in BV Section. This explanation seemed to appease the protesters, as BM’s chemical toilets remained upright throughout the remainder of my fieldwork period.

The City was about to commission BV’s new flush toilets as I concluded my research in August 2013. Between the New Year’s Day fire and late February 2013, some residents continued to use toilets that were still functional after the fire (Figure 35). They also resorted to using flush toilets in neighbouring D Section during the daytime. All five of the BV



Figure 35: In March/April 2013, protesters regularly tipped over chemical toilets in BM to protest their provision (top). The photograph in the centre shows several BV residents continuing to use the facilities that had not been destroyed by the New Year’s Day fire. The City demolished these facilities several weeks later in late February. A BV Section interviewee demonstrates her routine of looking for a clean ‘public toilet’ to use (left). She said she always rinses her hands at a tap after ‘relieving’ herself (right) (Taing, 6 April, 30 January & 4 July 2013).



Figure 36: An interviewee explains that the porta-potty is her family’s primary toilet because the chemical toilets (shown in the background on the top right) were too far from their home. A B Section resident crossed Lansdowne Road to dump greywater in a stormwater drain (centre) before ‘relieving’ herself in the yard of an extended family member’s formal home in M Section of Khayelitsha (bottom left). Another B Section resident said she used a shop toilet (bottom right) (Taing, 19 July & 16 July 2013).

Section interviewees said they preferred using the unlocked flush toilets to chemical facilities. Moreover, one BV resident explained that she preferred the ‘open’ flush toilets after re-settling in BM because the City undertook responsibility for cleaning them:

Yeah, I can clean a toilet but I don’t. I find it difficult to clean it by myself so if I use the open one—those people employed there will clean them. They clean the bowl and the floor.

Those relocated to Mew Way Hall also noted that they preferred the flush toilets they had used in BM Section to the chemical and portable flush units that the City provided in the temporary resettlement area. One Mew Way interviewee said that she had refused the allocation of a portable unit, as she preferred instead to use the chemical facilities (which were just a few metres away from her dwelling) during the daytime. The other two BV interviewees accepted portable units, though one claimed that only her grandchildren used it. The last BV interviewee (who was the female head of female-only household) said that the ‘porta-potty’ was their family’s primary facility regardless of time of day (Figure 36). While residents in A, C, D and BV Section generally found a means to access municipally-provided facilities in BM, the three interviewees in B Section reported not having any municipal provisions (including portable toilets) offered to them. In lieu of having a public sanitation service provided to their homes, each of the interviewees said they arranged to use a flush toilet across Lansdowne Road. Two interviewees said they used a toilet in the private home of a relative, and the other at a shop that she frequented (Figure 36).

In summary, three interviewees said they did not use a municipal toilet as their daytime toilet facility. Of the 18 who were using municipal services: (a) 11 were aware that the ‘government’ provided the facilities and a janitorial service; (b) six said they ‘think’ the government provided the sanitation service; and (c) one said she did not know. All but six women admitted to using alternatives to their daytime toilet in BM Section. Further discussion, however, generally revealed that most all of the female interviewees used pails to urinate for convenience if their dwellings were situated away from their daytime facility, and at night when struggling with ailments such as diarrhoea. The next section further discusses other night-time sanitation practices in BM Section.

6.3.2 Evening sanitation practises

While each of my interviewees reported feeling safe in BM Section during the daytime, all but two women (who coincidentally lived within metres of the toilets they used¹²¹) said it was unsafe to venture to the municipal toilets in the dark¹²², because they feared being robbed. Several had said they had already lost their cell phones to *skollies* (thugs). Some also feared

¹²¹ One of these women said that her husband watched her use the row of flush facilities across their home at night as a precaution.

¹²² Crous et al. (2012) similarly had found that walking distance and the inability to use the communal facilities at night (in part due to their closure) were the main reasons residents did not use municipal toilets in Durban informal settlements. Crous et al. (2012) recommended that planners carefully consider the users’ distance from communal facilities when introducing and evaluating informal settlement sanitation services.

that their homes might be broken into in their absence or patrons of local *shebeens* might assault them (neighbourhood taverns). Their fears were related to BM being shrouded in darkness after sunset (Figure 37).

Flood lighting is generally associated with reduced crime and increased security (CSIR, 2005a). While BM has some electrical masts, residents complained that the majority were broken and that the City infrequently repaired them (Groundup, 2013; VPUU, 2010). To highlight the need for improved lighting, SJC and two other NGOs sponsored a night walk where participants walked along Lansdowne Road in the dark in February 2013 (Equal Education, 2013). In response to the night walk, Paul Boughey (2013), who was then the Mayor's Chief of Staff, said

...the City was implementing normal repairs and maintenance in the area. By September last year all lights with a life span of 5-years were fitted... Within six months only 35% of these lights were working. This is because in some areas illegal electricity connections overloaded the electricity supply system, and significant vandalism rendered many of these lights inoperable... In the context of limited funds, constantly having to repair vandalised, stolen, or broken equipment, places an enormous burden on the City.

With regard to Boughey's comments,

- The City has provided the majority of BM households residing near Lansdowne Road with pre-paid electricity. Many residents with formal connections have since become informal electricity providers to other households without pre-paid boxes as a source of additional income (Figure 37).
- The City has also elected to leave flood lighting on during the daytime throughout the metro to reduce the theft of copper wiring. Officials admitted that is wasteful—especially given the present electricity crisis (Bloomberg, 2015; DA, 2014a; Daily Maverick, 2014; The Economist, 2015). They nevertheless reiterated that the round-the-clock measure is an 'effective deterrent', since few would 'risk their lives by hacking into live wires' (BBC 2010).

Unfortunately, the problem with electricity remained unresolved whilst I conducted field research in BM. While it was not a focus of my study, the majority of the interviewees said they adapted their sanitation night-time habits due to the lack of lighting at the toilet



Figure 37: Area lighting in BM Section at 6:00 (top, Norvixoxo, 6 April 2014). A tangle of overhead wires from illegal connections in BM is featured on the bottom-left. The majority of residents living at the back of BM arranged ‘informal’ connections with households near Lansdowne Road that had pre-paid boxes. The ‘suppliers’ said that their ‘customers’ paid an average of R125 per connection. On the bottom-right are mast lights left on at 14:20 on the N2 near Khayelitsha (Taing, 2 May & 4 February 2013).



Figure 38: An interviewee stores her night pail beneath her bed (left). Another interviewee keeps her pail alongside a portable toilet provided by the City (right). She said that her grandchildren only use the portable toilet (Taing, 15 & 19 July 2013).

facilities and along the network of narrow footpaths that weaved between people's homes¹²³. Most of the females resorted to either buckets or portable flush toilets (Figure 38) in the privacy of their own homes when necessary. A woman who lived in a multi-room dwelling explained that her family only used the bucket at night in their bedroom, and they did not use it 'outside... where food is prepared and where people visit'. She explained that one of the family members dumped their pail at dawn either in the communal toilets (Figure 39) or stormwater drains near their home. In addition, BM's wetlands tended to be a popular disposal point for residents. Due to this practice, residents commonly referred to the wetlands as *endyudywini*, which they translated as 'dirty places' in Xhosa. I also observed the contents of night pails in the standpipe drains (Figure 40).

Like the female interviewees, the two older males said that they, too, were concerned with being victims of robbery when using communal toilets in the evenings. They hence relieved themselves at night by digging a hole and burying their waste in the wetlands near

¹²³ Additionally, residents cannot use the public ablution block in the evenings because it is closed after 21:00.



Figure 39: An unpublished comic by Wesley Mathee depicting a common sanitation practise and cleansing problem in informal settlements.



Figure 40: Limited drainage has supposedly resulted in the contents of night pails being dumped into the drains of taps that provide clean water in BM Section (top). I noted that the waste remained there for several days, despite there being janitors to clean shared water and sanitation facilities in BM (bottom) (Taing, 14 & 16 February 2013).

their homes. The 22-year-old male explained that he generally chose ‘any place where I can hide, because anyone who is up at night can see me’. Alternatively, the two men also defecated in buckets or plastic bags. Notably, only the men who had been initiated into manhood admitted to using ‘flying toilets’ as a night-time practice. The women I interviewed were embarrassed when I asked if they, too, used plastic bags to contain their waste—with several noting that it would be *intloni* (which they translated as ‘a disgrace’) to do so.

When reflecting on the municipal sanitation in BM, only five of my interviewees (three of which used public toilets, the fourth a chemical facility and the fifth a locked flush toilet) said they were satisfied with the current state of services. The other sixteen interviewees (76%), in contrast, said they were generally unhappy due to their concerns about distance, personal health, security and long-term tenure. All but one interviewee suggested that the City provide residents with their own toilets and property. This lone interviewee said he had ‘no choice’ but to ‘accept’ BM’s conditions, and grounded his response in the municipal argument of there not being enough space to increase sanitation coverage:

In BM Section, we are still in shack houses. They are not proper houses with a toilet in each house. I’m happy with the toilets. I’m not expecting to have a toilet near my house because there’s no space.

In summary, my survey data revealed that the distance between 21 residents’ dwellings and municipal services influenced their sanitation practises and decisions, especially in the evenings. While I recognise that the data I present is not representative of the total population of BM Section due to my small sample size, the survey data nevertheless revealed a diversity of sanitation practices in the informal settlement—such as there being ten different means used by residents to ‘relieve’ themselves. The City only supported five of the ten arrangements (the ablution block; locked and unlocked flush toilets; chemical toilets and portable toilets). Regardless of the services’ form, the interviewees expected or wanted the City to clean toilet facilities. Of the five alternatives, the use of night pails was the most prevalent amongst the interviewees for urination and evening needs. Two males and two females also said they have defecated in either the wetlands or the N2 road reserve. The men noted that they defecated in the wetlands mostly at night.

The interviewees also discussed their general waste disposal practises. I next summarise their greywater and refuse methods, as well as draw upon general servicing concerns I observed, to note the significance of these practises and occurrences in the adequate design of sanitation programmes from an informal settlement user’s perspective.

6.3.3 Greywater & refuse disposal practises

Like Kosovo, there seemed to be limited municipal measures to account for BM residents' greywater and refuse removal needs. With regard to the former, the interviewees collected greywater in buckets and emptied the waste in toilets; standpipe drains; uninhabited spaces such as footpaths or wetlands; stormwater drains at Klipfontein Road; and 'self-made drains' (holes dug in the sand) near their homes (Figure 41/Figure 42).



Figure 41: Clockwise from the top-left: (a) A woman dumps her greywater in the drain of a communal tap. BM's limited drainage infrastructure resulted in residents' greywater disposal into (b) local waterways such as the Kuils River and (c) stormwater drains. I additionally observed a number of (d) 'self-made drains' next to residents' homes (Taing, 2 April, 14 and 15 February & 30 January).



Figure 42: I accompanied one of the interviewees to where she dumps her (a) greywater, which included food scraps. The BV Section resident noted that she did not have any open spaces nearby because dwellings surrounded her home. She hence (b) walked several minutes away to the N2 road reserve to (c) dump her waste and (d) then re-crossed the palisade fencing to rinse her bucket at a tap. I learned that one should be careful when walking around the reserve, as (e) I accidentally stepped where someone had defecated (Taing, 15 July 2013).

With regard to solid waste, BM Section residents said that they disposed of their rubbish at four official solid waste collection points located on the periphery of the settlement either on Lansdowne Road or at the back near the N2 highway. The interviewees indicated that a municipal contractor provided each household with one plastic refuse bag per week, which the contractor's workers collected in the four solid waste containers (Figure 43). Like residents in Kosovo, some BM residents also disposed of their refuse in the cubicles of dysfunctional toilets or open spaces (like wetlands). Officials attempted to redress this problem by employing residents to clean up this waste, but the efforts seemed to make little difference as rubbish continued to accumulate in open spaces despite these measures.



Figure 43: Clockwise from the top-left: (a) A solid waste container; (b) refuse disposed of in an empty toilet cubicle; (c) refuse in a wetland (*endyudywini*); and (d) an interviewee discarding waste (Taing, February, January & 4 July 2013).

6.3.4 Stormwater flooding needs

While Lansdowne Road has some stormwater drains, BM itself does not have a formal stormwater system. Of the 515 toilets I surveyed at the back of BM Section, 58 (11%) of the cubicles were inundated with water (Figure 44). These facilities were prone to flooding because most were situated in areas with naturally high water tables. Officials said they understood that installing waterborne sewerage in BM's flood zones made no technical sense, but they provided the toilets to meet the sanitation demands of the residents and their line managers. Their installation, however, provided no mitigation for building in flood-prone areas. Residents, moreover, noted that their flooding problems were exacerbated by the City's annual re-surfacing of the gravel road adjacent to the facilities. This re-surfacing has resulted in the toilets being lower than the road, and run-off from the road subsequently inundates the toilets in rainfall events. Residents tried to drain the flood-prone toilets by digging ditches to re-direct stormwater and using bricks and concrete slabs to raise users above water level. These efforts have only been intermediary measures, as flooding continues to plague BM's toilet users. Officials were aware that the City's provision and uncoordinated measures had affected basic services (as it is not unique to BM), and said they were in the process of hiring a contractor to raise the toilets on cement platforms with stormwater drains in 2014.



Figure 44: Toilets tended to be located in open spaces that oftentimes were undesirable for building due to their proximity to flood zones (left). The raising of the road adjacent to the BM's toilets also exacerbated this flooding problem (centre). Residents tried to reduce flooding by lining the bottom of waterlogged cubicles with bricks (right) or diverting water via channels (Taing, 2 April & 7 June 2013).

6.3.5 Organisations & businesses needs

Whilst it is not the City's responsibility to cater to the needs of church congregations¹²⁴ and small businesses¹²⁵, officials may find in the future that it is necessary to address how their activities impact upon informal settlement services and the general environment. I observed that BM's places of worship and commercial businesses likely contributed to the overloading of the settlement's infrastructure and environmental pollution. For instance, I observed a bi-weekly bodily 'purification' practise where a religious group administered enemas and emetics on its grounds in BM; in communal toilets close to the church grounds; and the open sand dunes opposite the settlement. I also saw waste regularly accumulated in open areas from informal traders and take-away stalls (Figure 45), and drunken patrons of shebeens tended to pee or to defecate wherever they pleased. Such observations suggests, as DWAF (2001: 17) noted in its 2001 *White Paper*, that the City might also need to cater its household-focused *Free Basic Services* informal settlement programme for the needs of a 'community':

Not only must sanitation improvement programmes be bundled with other inter-dependent services, but the sanitation package must consider the full range of sanitation needs within the community. The sanitation package must thus address not only the needs of households, but also the needs of institutions such as schools, places of worship, crèches, clinics, courts, sports venues and the requirements of public places such as bus stops, taxi ranks [and] sports.



Figure 45: Water used in a purification ritual (left) and waste disposed in a wetland from producing a homemade spirit called inquomboti (right) (Taing, July & May 2013).

¹²⁴ VPUU (2010: 15) found 20 religious meeting or ritual spaces in BM/France.

¹²⁵ CoCT (2013c) counted 44 informal trading stalls or businesses in BM/France in 2013. VPUU (2010: 17–18) had previously described the various commercial activities as 'retail' (hardware, clothes, spaza shops, fruit and vegetable stalls); 'services' (creches, carpentry, clothes-making, hair salons and ironwork) and 'food/bars' (take-away stalls and shebeens).

From the residents' vantage point, it is evident that the City's current sanitation programme does not adequately meet the needs of BM's population. For instance, the data I collected from my interviews suggested that distance of communal toilets from residents' dwellings affected their toilet usage. Moreover, I noted that residents considered it the responsibility of the government to provide, upgrade or sustain the informal settlement's infrastructure and services. As officials are well aware of the programme's limitations and residents' position, they have accepted that they are responsible for increasing the number and improving the state of communal toilets in BM with minimal (voluntary) assistance from residents. They hence have embarked on measures to address this sanitation problem.

It is significant to note though that the City's focus essentially centres on the planning and provision of additional standpipes and toilets for residents. Adequately addressing the sanitation needs of BM Section, however, requires looking at a number of settlement-wide services holistically. Residents' practises and BM's environmental conditions indicate that the design and implementation of informal settlement services need to broadly account for: (a) security concerns, such as adequate lighting; (b) placement of public infrastructure, to reduce the practise of inappropriate dumping of wastewater and refuse and mitigate stormwater flooding; and (c) the needs of on-site organisations and businesses, due to their impact on access to toilets and the functionality of facilities.

6.4 Summary

This chapter explores how actors in Cape Town's largest township engaged with local government and subsequently influenced the municipal design and implementation of informal settlement programmes from 2011 to 2014. I focused particularly on the vantage points of sanitation advocates in Khayelitsha, and residents who were employed to clean toilets or supposed to use them in BM Section. This case touches upon many facets in Cape Town's toilet debate, as I discussed the following points in informal settlement servicing:

- **Progressive realisation of basic sanitation:** Using the state of services in Cape Town's formal areas as a benchmark, SJC advocates argued that the City's basic sanitation provision in informal settlements did not meet the national government's standards. Ses'Khona's activists also looked towards formal service provision as their baseline, for their controversial protests were purportedly over the type of technology offered to informal settlements. Ses'Khona demanded that officials provide every

dwelling with flush toilets (Cape Times, 2013b, 2014a), which infers that the activists only considered household sewerage to be appropriate for urban South African residents. The City's representatives, however, argued that their communal toilets exceeded the minimum requirements of national policymakers, and the citywide janitorial service was evidence of their incrementally improving basic informal settlement sanitation services in light of servicing and financial constraints.

- **Appropriate informal settlement planning:** SJC and CoCT have different planning rationales. Assessing government performance from an activism viewpoint, SJC advocates repeatedly expressed concerns with the City's lack of forward planning in the Mayor's Project janitorial initiative. Officials, in contrast, considered their ad hoc informal settlement measures to be practical and context-appropriate.
- **Prioritisation of jobs and remuneration:** Sannicare protesters and EPWP janitors prioritised job security and remuneration over work conditions in municipal sanitation programmes. In recognition of their priorities, the City: adapted its operations so that it now involves itself in the facilitation of contractor labour disputes, and set-up an administrative system to effectively support its temporary workers' timely payment.
- **Adequate access to informal settlement services:** While the City focused on increasing sanitation access by adding more toilets, SJC argued that poor O&M and security in informal settlements reduced access to municipal services. My on-the-ground data supports SJC's argument, and further shows how the insufficient removal of all unwanted water and waste can reduce sanitation access in informal settlements.

The above-listed points suggest that Cape Town's sanitation debate continues to be mired in two rationales. Like the Kosovo case study, proponents of the first rationale (social advocates and residents) largely adopted an advocacy stance to hold municipal implementers accountable for providing sanitation services in informal settlements. The second world-view again stresses how policy beneficiaries should share sanitation responsibilities with the state, though municipal managers have since taken primary responsibility for sanitation services by either directly implementing maintenance or employing residents to do so on the City's behalf. The need for the local municipality to accept responsibility for *Free Basic Sanitation* in informal settlements is linked to ambiguous language and gaps in national policy and legislation, which I discuss further in the next chapter.

7. Study analysis & key findings

I use a multivariate framework inspired by Mazmanian and Sabatier's implementation variables framework (see Table 3) in this chapter to analyse the design and provision of informal settlement sanitation services in Cape Town. I first summarise the contents of national policy and then explore local actors' interpretations of it—focusing especially on why similar and different approaches to providing basic sanitation access manifested during policy implementation. The study's key findings will indicate—as McLaughlin (2012: 172) once said of Pressman and Wildavsky's seminal implementation case study—that

even the best planned, best supported, and most promising policy initiatives depend finally on what happens as individuals throughout the policy system interpret and act on them.

7.1 Policy target

7.1.1 Problem identification

As discussed in Chapters 4 and 5, the national government disseminated numerous sanitation-related policies, laws, regulations and strategies from 1994 to 2008. Instead of concentrating on the formulation and applicability of a specific document, I focus on a common theme that underpinned DWAF's policies: the post-apartheid government's vision of progressively extending basic sanitation access to the poor. National policymakers' attention to this problem ultimately culminated with their unprecedented pledge of providing poor households with limited amounts of *Free Basic Services* in January 2001. This policy is popularly regarded as the national government's means of ensuring that affordability did not impede anyone's access to basic water, sanitation, refuse removal and electricity services. The water and sanitation components of the policy went into effect after the 'promulgation' of the national *Norms and standards for water services tariffs* in June 2001 (Muller, 2008: 74).

7.1.2 Targeted changes

DWAF (2003: 6) aimed to achieve the following by 2010 in its 2003 *Strategic Framework*:

- For every South African to have 'access to a functioning basic sanitation facility'; and
- For all municipalities to have the 'Free basic sanitation policy implemented' in their respective jurisdictions.

National policymakers later extended their target date to 2014 when it ‘became apparent’ that they would not achieve either aim by 2010, and to align them with the then Department of Housing’s informal settlement eradication aim (DWA, 2012: 9). DWAF (2003: 12) said that implementers could decide how they would ‘progressively’ realise their servicing obligations—such as choosing the type of technology. Policymakers had not set precise sanitation specifications in recognition that: (a) their basic norms and standards had to accommodate circumstances that ‘vary greatly’; and (b) their implementation counterparts should have authority to provide services based on their available resources and local conditions (DWAF, 2003: 31, 46). DWAF (2003: 6, 42), in its capacity as the national regulator, intended to assess their municipal counterparts’ progress and performance according to ‘their stated intentions and their capacity’ through annual reports, the census and random verification checks.

7.1.3 Actor specification

As noted in Chapter 4, national policymakers stated that:

- *Free Basic Sanitation* beneficiaries would be involved throughout the ‘conceptualisation, selection, planning, design, implementation, operation and maintenance of all projects developed under this policy’; ‘accept responsibility and ownership’ of their toilets by taking ‘due care’ of them; and pay for ‘services provided over and above’ the policy requirements (DWAF, 2001c: 20, 14, 2003: 26).
- Municipal implementers would ‘conform with national policies, norms and standards’; be held accountable for service delivery; and provide for off-site O&M costs of *Free Basic Sanitation* services through cross-subsidies (DWAF, 2003: 57).
- DWAF (2003: 21, 22) identified itself as the water services policymaker and regulator; and its respective national counterparts¹²⁶ would be responsible for administering capital subsidies, drafting hygiene education plans, assisting with integrated planning amongst different spheres of government and aligning housing policies with sanitation standards.
- The private sector would help municipal implementers with the design, supply, construction or financing of public infrastructure (DWAF, 2003: 19).

¹²⁶ The other policy custodians were the National Treasury and the Departments of Health; Provincial and Local Government; and Housing.

- Civil society would assist municipal implementers by identifying local priorities; building links between the state and locals; planning, implementing, managing and monitoring of local projects; mobilising additional funds and holding local government accountable when necessary (DWAF, 2003: 41, 24).

7.1.4 Technical aspects

While policymakers gave implementers discretion to allocate their subsidies based on what is ‘financially viable and sustainable’, DWAF (2003: 31, 30) stated that: (a) on-site technologies are the ‘most appropriate’ for peri-urban areas, and waterborne sanitation for high-density urban areas; and (b) ‘Communities and municipalities must agree about the system to be used to replace buckets’. In other words, national policymakers intended to replace urban bucket systems with either un-sewered systems (such as VIP latrines or septic tanks) or waterborne services; and for municipal implementers to make their technology decisions with the intended policy beneficiaries. The first aim suggests, as Mazmanian and Sabatier (1989: 23) noted, that a key criteria of the successful implementation of the sanitation policy was ‘predicated upon the availability or development of specific technologies’. The second aim indicates that consensus – in terms of common understanding and acceptance – between the beneficiary and implementer was an important aspect in the policy process.

7.2 Policy-implementation process

7.2.1 Valid assumptions

Mazmanian and Sabatier (1989: 25, 26) stated that causal theory in policy implementation is ‘the manner in which objectives are to be attained’, and credited ‘inadequate causal theories’ for the majority of failed implementation efforts. With regard to post-apartheid basic sanitation efforts, the theories underpinning policymaking were that the state had adequate:

- **Policies:** DWAF (2003: 3) had formulated policies that ‘establish the vision, overall goals and approach’ and strategies that ‘set out the detail of how the policies will be implemented in order to achieve the vision and goals’.

- **Resources & capability:** The state had enough financial resources to provide limited amounts of free capital and O&M services to poor households, and capable implementers to effectively administer these resources.
- **Decision-making & participatory processes:** A diverse range of actors would work together in a coordinated pipeline process to implement ‘demand driven’ and ‘community based’ services for the poor over time (DWAF, 1994: 8).
- **Policy support:** Policy actors accepted the state-assisted self-help policy and programme. For example, national policymakers assumed that *Free Basic Sanitation* beneficiaries would undertake the on-site responsibilities of their toilets.
- **Technical feasibility:** It is technologically possible to provide all South Africans with infrastructure that improved upon the apartheid government’s bucket system.

Yet, the implementation of *Free Basic Sanitation* in Cape Town’s informal settlements has exposed fundamental problems with the above-mentioned policy premises. I next explore how flawed assumptions about the state’s policy objectives, resources, capability, approach, policy support and technical feasibility affected the implementation of informal settlement sanitation services in Cape Town.

7.2.2 Clear objectives

In its 2001 *Water Services Development Plan*, CoCT (2001b: 21, 20) cited the:

- 1997 *Water Services Act* to indicate its responsibility of providing ‘a right of access’ to basic sanitation, subject to ‘the availability of resources’; and
- 2001 *Norms and standards* basic sanitation definition as its basis for free services.

In light of sanitation legislation and regulatory policy, CoCT (2001b: 20) said it would ‘provide access to either communal toilet blocks or some form of shared toilet’ in ‘informal areas’ at its own cost while exploring consumers’ willingness to pay for services over time. Moreover, in spite of their concerns with cost-recovery, municipal implementers designed a *Free Basic Sanitation* programme for informal settlements based on the City’s available resources as recommended by national policymakers. Upon reviewing their budget, bulk infrastructure networks and capacity, CoCT officials (2001b: 20, 2005a: 19):

- Decided by 2001 that the majority of *Free Basic Sanitation* informal settlement beneficiaries could choose between black buckets on a household basis or communal VIPs, container or chemical toilets as their toilet facility—for legal, financial and environmental constraints limited the City’s ability to sewer occupied land; and
- Set the minimum sanitation standard for access in 2005 at ‘five households to one toilet that is clean and ventilated’.

CoCT implementers also seemed to accept the aforementioned sanitation actor responsibilities, as its community management scheme in informal settlements was contingent on having the policy beneficiaries keep their communal toilets ‘clean and hygienic’ (WSISU, 2010: 2). The City eventually initiated sewerage projects such as Kosovo’s vacuum system pilot, in light of their policy beneficiaries’ demands for waterborne sanitation and the national government’s *Breaking New Ground Policy*, which encouraged the incremental development of informal settlements into permanent housing. Based on CoCT’s policies, it appears that policy implementers had understood the national policymakers’ vision, goals and approach when formulating the City’s operational policy for sanitation provision and informal settlements development.

Neither policymakers nor implementers, however, had likely accounted for possible dissent with their ‘clear’ formulation and execution of national policy. Service delivery to informal settlements in Cape Town revealed the following conflicting understandings of what it meant to progressively realise access to *Free Basic Sanitation*:

- **Progressive realisation:** The SJC alleged in a SAHRC (2014b: 5, 6) complaint that CoCT had violated informal settlement residents’: (a) right to basic sanitation (as stipulated in the *Water Services Act*), and (b) constitutional rights to equality, human dignity, privacy and residing in a harmless environment. The SAHRC’s (2014b: 54, 66) Western Cape provincial branch ultimately concluded that CoCT had violated residents’ rights by not ‘flexibly’ administering ‘reasonable’ measures that progressively addressed ‘context-specific’ needs in informal settlements over time. In response to the SAHRC’s judgment, Mayor de Lille (2014) said that the national institution showed an ‘inexplicable lack of understanding of the legislative, financial and other factors which determine service provision’.

- **Access:** As one Kosovo project manager and BM resident noted, density is the City's biggest constraint to improving sanitation access in informal settlements; officials simply have no space to provide every household with its own toilet, as many have demanded. Given the lack of space, CoCT officials have regarded access in terms of having a toilet facility near one's home. Informal settlement residents and SJC advocates, on the other hand, have argued that the City has failed to provide adequate sanitation access, because many intended beneficiaries cannot safely enter and use an informal settlement toilet throughout the day due to physical security problems and poor maintenance of state-funded facilities.
- **Acceptable sanitation technology:** In 2004, DWAF (2004b: 49) inferred that CoCT's widely implemented un-sewered toilets did not meet its standards and advised the City to 'urgently' replace these 'bucket latrines'. Moreover, the national policymaker and regulator noted that these communal un-sewered options should not be implemented for more than a month in informal settlements. Four years later, in light of the inability to eradicate the bucket system nationwide, DWAF (2008a: 21) changed its position and accepted the prolonged use of un-sewered toilets as 'temporary' options. Policy beneficiaries, however, have generally rejected 'anything other than water borne sanitation' (PMG, 2007). CoCT implementers attempted to meet informal settlement residents' demands by introducing sewerage where possible. But the majority of informal settlements in Cape Town cannot be seweraged with conventional technologies, and Kosovo's failed vacuum sewer left many officials reluctant to implement alternative systems. Put simply, policy regulators, beneficiaries and implementers have not identified an acceptable technology that can be provided to areas that are difficult to conventionally sewer.
- **Free sanitation in informal settlements:** For years, CoCT provided residents with free communal toilets and expected the beneficiaries to service them as a 'community'. In other words, CoCT officials made behavioural assumptions about how residents would utilise and maintain their toilets. But, as a WSISU official acknowledged in 2011, the users did not 'share toilets as we expected'. After struggling with 'high maintenance' costs due to the 'lack of dedicated ownership', CoCT (2013h: 2) eventually provided a janitorial service for waterborne services in informal settlements. In other words, CoCT provided its beneficiaries with a free

basic sanitation facility (infrastructure) as DWAF (2003: 46, 66) required, as well as a basic sanitation service (means to remove waste) at its own cost.

These points indicate that policy actors have interpreted progressive access to *Free Basic Sanitation* for informal settlements differently. These discrepancies are significant to note, as the conflicting interpretations suggest that the policy objective and the corresponding directives were not as 'precise' or 'unambiguous' (Mazmanian and Sabatier, 1989: 25) as policymakers and implementers had presumed.

7.2.3 Financial allotment

The national government had indicated that it had sufficient funds to provide *Free Basic Sanitation* for the urban poor through capital housing subsidies, equitable share grants and local cost recovery schemes; and that it would subsidise higher service levels as the basic sanitation backlog decreased and more funds became available over time (DWAF, 2003: 27, 28, 2). CoCT officials, however, said that they mostly funded informal settlement services from local cross-subsidies due to their inability to use housing grants in informal areas and recover any costs from consumers. In addition to largely funding *Free Basic Sanitation* at its own cost, it seems that CoCT undertook the following unbudgeted tasks in order to fulfil its constitutional obligation:

- Free allocations to all residents (CoCT, 2001b: 11), due to the challenge of identifying poor households;
- The capital installation of, water supply for and rehabilitation of sewerage for informal settlements, which policy beneficiaries demanded but have not contributed financially towards;
- Conflict mediation for settlement servicing disputes when consensus is not attained;
- Security to provide municipal services during periods of unrest;
- Janitorial services for communal toilets; and
- The costs of the staff and systems that have been employed to support the initiative.

In addition, informal settlement residents (and their sanitation practises) have indicated that communal municipal sanitation services need to be supplemented with

infrastructure for hand washing, greywater disposal, stormwater drainage and solid waste removal, as well as electricity masts for area lighting. The above-mentioned unforeseen *Free Basic Sanitation* expenses and need for related basic informal settlement services suggest that the financial resources for this policy might have been misjudged—especially given that demand has not decreased but increased over the past decade. The oversight of informal settlement servicing costs seems mostly due to the national *Free Basic Sanitation* budget being conceived on the expectations of: (a) the state being able to eradicate informal settlements by 2014 (Huchzermeyer, 2011: 115), by providing the poor with new housing and services on a household basis; and (b) the beneficiaries undertaking on-site O&M tasks of their household toilets thereafter. Put simply, policymakers had not budgeted for the long-term support of informal settlement services when calculating their sanitation for the urban poor allocations.

7.2.4 Implementers' capability

Mazmanian and Sabatier (1989: 34) noted that a civil servant's commitment and leadership skills 'most directly' affect policy outputs in terms of prioritisation, course of action and management of available resources. While Mazmanian and Sabatier's variable focuses mostly on an official's attitudes and management skills, the data from the case studies indicated that a disabling institutional environment also affected Cape Town implementers' ability to provide informal settlement services:

- **The lack of a workable informal settlement policy & budgeting method:** Unrealistic or ambiguous policies—such as the untenable free housing vision and the subsequent 'policy vacuum' for servicing informal settlements (SAHRC, 2014b: 70)—constrained implementers' ability to provide *Free Basic Sanitation* in places like Kosovo and BM. While municipal government was expected to conform and adhere to its national counterpart's sanitation agenda, implementers reported that it was difficult to administer *Free Basic Sanitation* as policymakers had envisioned—mostly because residents wanted a freestanding home in a formal neighbourhood (as promised by national government) over shared toilets in informal settlements. One former official, for instance, said in 2014 that, 'It was shit going to the communities, and fiddling with some toilets when you knew that wasn't the problem'. The quote indicates that the City's sanitation programme did not correspond with what informal

settlement residents really wanted. Additionally, the City operates from pre-approved annual budgets, which many implementers said inhibited service delivery, for they could not accurately estimate capital, operation and rehabilitation budgets for informal settlements in advance (CoCT, 2001b: 88; Taing et al., 2014: 142).

- **The City’s perpetual restructuring & detached silos:** CoCT (2001a: 19) had aimed to restructure its organisation and administrative functions as a decentralised but coordinated unicity by January 2003. This target date, however, was optimistic, as officials said that they were still undergoing re-structuring exercises after previous reorganisation efforts remained incomplete subsequent to the then organisers leaving the City after their short tenures in management. Implementing officials said they were ‘fatigued’ from participating in ‘perpetual restructuring’—mostly because the City has yet to establish an effective system for synchronising day-to-day and long-term service delivery amongst its newly-established ‘silos’. To attest to their problems with day-to-day coordination amongst line departments, an official noted that the citywide Project Management Portfolio (which enables officials to consolidate project-related information on the City’s digital ERP) was only launched in late 2014. With regard to the detrimental effects on long-term planning, Kosovo’s failed vacuum sewer serves as an example of how successive rounds of municipal devolution negatively affected implementation amongst line departments that had different notions of how services should be provided in informal settlements. The City’s decentralised institutional arrangement created tension amongst implementing departments, which ultimately did not coordinate their plans and budgets in a pipeline manner. The disbanding of the project champion worsened implementation of the vacuum sewer, as it left the ‘inheritors’ reluctant to accept accountability of (and therefore responsibility to fix) the dysfunctional technology.
- **Multi-objective programmes supported by technical implementers:** The City’s Kosovo and BM Section interventions both contained policy objectives of simultaneously improving sanitation conditions while creating temporary job opportunities in informal settlements. Yet the implementers responsible for Kosovo said their technical training (as engineers or plumbers) ill-prepared them for formulating general policy and negotiating the politics of development and poverty alleviation. Several also said they technically were not required to undertake such

tasks, for their employment contracts specified their roles as infrastructure designers, providers or maintainers. I did, however, observe that some officials—such as those responsible for BM’s janitorial services—invested an inordinate amount of time and energy in projects that interested them. The municipal officials who personally invested in projects, however, tended to be especially frustrated with unclear policy, poor budgeting or disorganisation amongst departments. For example, one *gatvol* (fed up) official—who was upset with what he viewed as the City’s slow pace with changing its ineffective policies and practises—said

I’m not going to bend over backwards anymore, fuck them. I’ll do nothing beyond my job description—work 9-5, do the bare minimum.

In brief, the following institutional environment and personal commitment concerns affected implementers’ capability to execute policy in Cape Town:

- The need to first devise a feasible visioning policy and strategy to practically address and finance the variable servicing needs of informal settlements;
- The City still being in a transitional state fourteen years after its establishment, as well as having yet to establish an effective means for synchronising its operations amongst newly devolved departments; and
- The dilemma of holding implementing officials accountable or compel them to undertake responsibilities in multi-objective initiatives that they claim they are unqualified for or might not feel obligated to assume.

7.2.5 Extent of (de)centralisation

7.2.5.1 Decision-making & participatory processes

As noted in Section 2.3.2.1, roles and responsibilities amongst multiple actors can suggest the extent of centralisation or decentralisation in informal settlement sanitation design and implementation. DWAF (2001c: 21, 11) had devolved decision-making to: (a) municipal implementers, who would make ‘responsible decisions’ on ‘appropriate and affordable’ service levels; and (b) communities, who would agree with implementers on the technology to be provided and ‘participate in decision-making about what should be done and how’. With regard to the latter point, DWAF (1994: 8) had stressed in its 1994 *White Paper* that demand driven development and community based management of toilets should be

‘devolved’ to communities, on the assumption that their involvement increased the likelihood of their maintaining their facilities thereafter.

Yet, as the Kosovo and BM case studies indicated, policymakers were presumptuous in expecting that policy implementers and beneficiaries would simply accept this method of making decisions and coordinating O&M in a pipeline manner. While CoCT officials largely followed national government’s directives, many outspoken informal settlement residents and their advocates objected to the City’s prioritisation of its obligations (of managing multiple objectives simultaneously in light of limited resources) over the demands of policy beneficiaries. From the beneficiaries’ and advocates’ perspectives, CoCT’s *Free Basic Sanitation* approach—which was modelled on the national government’s broadly framed policy and legislated process for community consultation—seemed top-down, as decisions had been made and processes had been set without contributions from them. Moreover, Cape Town’s failed community-managed toilets scheme indicated that informal settlement residents might want to be involved in determining how and what toilets are provided, but there is limited contractual means to compel them to accept responsibility for state-subsidised services. Put differently, policy beneficiaries (unless employed as municipal workers to undertake specific tasks) cannot be held accountable in *Free Basic Sanitation* informal settlement arrangements. In light of being unable to share on-site responsibilities with beneficiaries, CoCT implemented the citywide janitorial programme in 2012 to fulfil its constitutional servicing obligations. Decision-making for and control of informal settlement toilets was thus devolved to the lowest accountable level: the City.

Interestingly, Mazmanian and Sabatier (1989: 28) said participatory processes tend to be biased towards supporters of state policies. The case studies depicted in this thesis indicate, however, that CoCT officials have adapted their official (i.e. state-sponsored) consultative approaches to satisfy both their supporters and opponents as part of the City’s consensus building approach. While gaining consensus is time-consuming amongst the beneficiaries’ representatives, several implementers said that it was necessary to attain the backing of those who oppose state policies and processes, for unresolved intra-community and localised tensions often resulted in extended rollout delays and poor project outcomes. In spite of the City’s accommodations, its critics have claimed that the system used by officials (which is largely representative-based) does not fully capture the perspective of the ‘community’, and have since insisted that informal settlement participatory approaches are devolved further to allow greater input from the intended beneficiaries.

In addition to their debate with policy beneficiaries and social advocates, municipal implementers said that they have also negotiated decision-making and participation with their colleagues or political counterparts in the City. The next section frames these internal discussions according to attaining support for policy and implementation.

7.2.5.2 Veto & clearance points

The City's decentralised pipeline structure, as Mazmanian and Sabatier (1989: 27) said of any 'loosely integrated' system, had added numerous veto (policy disapproval) and clearance (implementation endorsement) points to an already complicated process. The Kosovo case study, for example, demonstrates how the City's division of its town engineering functions and turnover of senior managers resulted in implementers having to obtain support and receive direction from numerous line department officials for the vacuum sewer project. Many implementers said that they still struggle to attain support and coordinate their line functions with their colleagues. One official also noted his confusion with the oftentimes contradictory advice and instructions from his seniors in stating that, 'Management has to realise they can't send different directives'. The City's current decentralised mode of servicing and decision-making in an uncoordinated pipeline manner allows—as one implementer stated—the perfect means for opponents of initiatives to promote their own department's programmes or personal interests by (figuratively) 'stabbing' each other 'in the back'. This finding follows Schein's (1996, as cited by McNabb, 2008: 331) hypothesis of an organisation's 'innate culture' often being 'a barrier to planned change', as well as internal resistance exposing 'subcultures that exist within all groups'.

In addition to the challenge of overcoming uncoordinated silos, implementers were frustrated that servicing decisions about in-situ developments and the janitorial programme were generally motivated by the City's elected political officials instead of its implementing line departments. They alleged this was problematic because representatives are motivated by their imperative to gain 'political points' rather than to practically improve the rollout of services. The officials' statements implied that their actions were dictated largely by the will of their political counterparts. I had observed, however, that implementers for the Kosovo and BM case studies could exercise discretion over project-level decisions if they chose to. Most officials though deferred making decisions to seek their senior management's guidance, for they could be held personally (and even financially) accountable for 'fruitless and wasteful

expenditure'¹²⁷. Implementers hence said compliance with their senior management's directives was a significant form of civil service protection, because national and municipal policies did not fully account for all eventualities they encountered when servicing informal settlements. The implementers' statement and my observations suggest that while the City has devolved implementation responsibilities amongst various line departments, its political leaders and executive management generally have responsibility for setting municipal servicing agendas and methods.

The negotiations in sanitation delivery on-the-ground in informal settlements and behind-the-scenes at the City indicate that policy actors have conflicting notions of the extent that decision-making and participatory processes should be either decentralised or centralised at a local level. While policy beneficiaries and their advocates have proposed context-specific processes at an informal settlement level, CoCT has opted to retain authority over sanitation design and implementation, largely because they are unable to hold policy beneficiaries accountable for their actions. Internally, the local government is struggling to effectively provide sanitation services in a pipeline manner, largely due to the inherent conflict between its decentralised structure and centralised decision-making system.

7.2.6 Political support

7.2.6.1 Public officials

Mazmanian and Sabatier (1989: 28, 34) said policy is unlikely to be achieved if implementers are not 'strongly committed' towards the policy objectives, for their support is needed to develop and enforce standard operating procedures, as well as 'go beyond' expectations in light of limited resources. As the Kosovo case study indicated, the assignment of the vacuum sewer's management to an 'ambivalent or hostile' line department (Mazmanian and Sabatier, 1989: 28) contributed to the system's ultimate failure. The Mayor's Project janitorial programme, in contrast, has had strong support from the national water custodian (in terms of funding), the City's political leadership and the initiative's implementers, as the programme seems 'consistent' (Mazmanian and Sabatier, 1989: 28) with their aims of improving basic sanitation services while simultaneously addressing poverty alleviation in informal settlements. These case studies indicate that the definite support of the funder/regulator,

¹²⁷ The 1999 *Public Finance Management Act* defines fruitless and wasteful expenditure as being 'made in vain' and could 'have been avoided had reasonable care been exercised' (National Treasury, 2014: 1).

agenda-setters and implementers has a big impact on the success of municipal policy-implementation processes in Cape Town.

Not all state institutions, however, supported CoCT's informal settlements sanitation programme. As I had noted in Figure 2 and Section 7.2.2, the SAHRC's Western Province branch had concluded that the City's provision of un-sewered toilets was racist and did not meet national standards. The SAHRC's findings ultimately received a lot of publicity, yet the report seemed to have had little (if any) regulatory impact at both national and local levels. For instance, neither of the Department of Water and Sanitation (DWS)¹²⁸ officials I interviewed had read the report—though one noted the SAHRC is a significant government 'watchdog' (Mbentse and Mfenqa, 2015: 297). At a local level, a CoCT official bluntly advised, 'Don't read that shit from SAHRC; we know what's going on here'. The implementer's statement is consistent with Mayor de Lille's (2014) reading of the SAHRC being out-of-touch with the 'practical realities' of municipal administration. Interestingly, one former DWAF official had likewise noted his frustration with the SAHRC in previous engagements, as he explained that its officials tended to jump to conclusions that were consistent with their world-view (H Muller, 2015: 287).

The City eventually disputed the SAHRC's allegations on the grounds that the investigation had been 'procedurally improper' and was not 'free from prejudice' (de Lille, 2015). In March 2015, the SAHRC's national division concluded that its provincial counterpart's investigation had 'procedural irregularities' and dictated that the provincial branch commence a new inquiry (GroundUp, 2015). Yet, regardless of the results from the SAHRC's second investigation, Mayor de Lille (2014) previously noted that the watchdog can only make 'recommendations' that 'are not instructions' or 'rulings against the City'. In other words, the Mayor indicated that the SAHRC has no means to enforce its recommendations, for the body does not have: (a) regulatory authority as the national sanitation custodian, or (b) legal authority like Parliament, the Executive Cabinet or a Court to set, interpret and impose a government mandate. The SAHRC's lack of regulatory and legislative authority means that CoCT has discretion to follow the watchdog institution's recommendations. This is significant to note, as a municipal official suggested that CoCT is unlikely to follow any guidance that the institution is not obliged to observe, as the Mayor

¹²⁸ Established in May 2014 as the national water services custodian, DWS (2014) 'is primarily responsible for the formulation and implementation of policy governing this sector' and has 'overriding responsibility for water services provided by local government'.

had personally conveyed to him that implementers should only focus on laws and regulations that are enforceable. Given the SAHRC's limited regulatory capability, the support of the SAHRC seems to have had a negligible impact in the case studies.

7.2.6.2 General public

Media coverage of Makhaza's open-toilets initially sparked public interest in sanitation for the poor in 2010 (see Figure 3). As a consequence of the scandal, sanitation—which is popularly regarded as a taboo topic (Black and Fawcett, 2008)—has been a regular media fixture for the past five years. This increased media attention seems to have brought changes to the City's sanitation programmes, as implementers have received additional financial resources to scale-up their operations in informal settlements. Sanitation being at the fore of public consciousness has also provoked reform and action at a national level, for the interest in municipal toilet scandals throughout the country prompted national government to:

- Transfer the state water custodian's sanitation responsibilities to the Department of Human Settlements (DHS, 2010), ostensibly to improve service delivery; and
- Launch a Ministerial Sanitation Task Team (MSTT, 2012: 1), to investigate 'malpractices in the implementation of the sanitation programme' and evaluate municipal 'compliance with norms and standards'.

The above-mentioned points suggest that the public can affect resource allocation, institutional reform and the government's agenda. The media is also a significant figure in garnering the public's interest and sustaining its attention.

7.2.6.3 Constituency groups

- **Sanitation policy beneficiaries:** Both national and local officials had initially presumed that all actors accepted the state-assisted self-help policy and they could largely decide the terms for the *Free Basic Sanitation* allocation to the poor. The failure of the community-managed toilet system in places like Kosovo and BM Section, however, indicated to the latter party that its informal settlement beneficiaries did not collectively subscribe to the top-down determination of sanitation roles and responsibilities. The City's subsequent provision of a janitorial service suggests that

officials' observations of residents' daily practises, coupled with the contributions of outspoken representatives, affected the re-formulation of municipal programmes.

- **Informal settlement community representatives:** In general, CoCT implementers considered the support of informal settlement representatives significant, for potential vetoes from them could spell potential sabotage on-the-ground. Instead of contributing funds, the community leaders tended to invest time and energy in development projects, for the trade-off of having influence in service delivery and the possibility of attaining short-term job opportunities.
- **Job creation policy beneficiaries:** While there was resentment and dissatisfaction amongst temporarily employed workers in both the Kosovo and Mayor's Project initiatives, the majority of the job creation policy beneficiaries seemed satisfied with the City's contracting terms. The support and morale of janitors, supervisors and administrative clerks, however, were affected when the temporary staff compared their work conditions and remuneration to permanent employees.
- **Civil society advocates:** As national policymakers had intended, advocacy groups such as SJC and WCRLF helped hold local government accountable and identified service delivery problems. SJC's interaction with the City also influenced how CoCT allocated resources for sanitation programmes; provided services in informal settlements; and engaged with local partners, the media and residents. For example, several implementing officials noted that they were instructed by management to pay especial attention to the janitorial programme in Khayelitsha due to SJC's presence. SJC seems though to have had limited effect on the City's processes and systems. In general, CoCT either aligned its resources with groups that supported its methods, or adopted an adversarial relationship with those that did not.
- **Opposing factions:** The data from the Kosovo and BM Section case studies indicate that sanitation programmes are inextricably tied to the community politics of informal settlement residents wanting permanent homes and job security; and localised competitive party politics between the ANC and DA, in light of the former's attempt to gain and the latter's attempt to keep control of the Western Cape.

7.2.7 Situational influences

Mazmanian and Sabatier (1989: 30–31) stated that it is necessary to secure periodic political support over time, because changing socioeconomic circumstances can influence how ‘scarce resources’ are allocated in light of competing policy interests and how much ‘administrative discretion’ is given to implementers to realise a policy objective. With regard to the Cape Town context, municipal implementers have remained the most dominant figures in the City’s sanitation policy-implementation process. The City’s mode of following precedent ensures that the implementers have a regular budget for existing operations in informal settlements. Growing concerns about informal settlement conditions have resulted in temporary infusions of once-off national and local grants that enabled municipal implementers to expand their O&M services for the poor since 2012. The City’s broadened sanitation programme suggests periodic support affected how public resources are allocated—especially for informal settlements, as South Africans seems to have accepted that they are ‘here to stay’.

In addition to socioeconomic conditions, Mazmanian and Sabatier (1989: 31) noted that the ‘technological state of the art over time’ is critical when policy is ‘directly tied to technology’. With regard to servicing the sandy Cape Flats, the success of the policy was always constrained by the state’s inability to retroactively sewer densely settled informal areas with conventional technologies. Alternative sewerage technologies might seem sensible to provide in these conditions, but the unsuccessful implementation of Kosovo’s vacuum sewer (as well as the failed community-managed toilet scheme in burgeoning informal settlements) has indicated that, in addition to its technical constraints, CoCT struggles to:

- Develop the institutional systems and capacity it requires to design, implement and manage unfamiliar technologies; and
- Coordinate on-the-ground O&M responsibilities with policy beneficiaries.

These institutional and coordination problems illustrate that while technology choice is a major component in service delivery, the aforesaid policy-implementation variables and socioeconomic conditions that inform the way that technologies are delivered and managed will largely determine the feasibility of sanitation interventions in informal settlements.

7.3 Policy Evaluation

7.3.1 Actors' synergy

7.3.1.1 Perspectives & expectations

There seems to be two rationales fuelling the debate about sanitation access in informal settlements. The first focuses on the public provision of services to redress historical wrongs and the state's responsibility to improve the 'lived reality of the persons who will be provided with services' (SAHRC, 2014b: 68). Policy beneficiaries and their advocates—such as civil society activists and the SAHRC—adopted this bottom-up world-view. Municipal policy implementers and (later) the national custodian argued that stakeholders should work in concert to improve services, because the government cannot shoulder the 'practical realities' (i.e. legal, financial, environmental and social constraints that hinder service delivery in informal settlements) alone (de Lille, 2014).

Additionally, Cape Town policy actors' interaction and subsequent disputes exposed possibly irreconcilable understandings of why sanitation policy is formulated and how it should be applied in informal settlements. The actors' approaches and aims suggest that they expected the purpose of sanitation policy to be:

- **Pluralistic:** National policymakers adopted a pluralistic framing in that they allowed for context-specific applications within their 'umbrella framework', so long as municipalities based implementation upon the national government's broad 'vision, overall goals and approach' (DWAF, 2003: 3). In other words, national policies had to be 'broad enough to cover all situations that might occur within it' (M Muller, 2015: 275). A national policymaker also noted that policy represents the 'aspirations' of the state (Mbentse and Mfenqa, 2015: 291).
- **Practical:** Like national policymakers, Cape Town policymakers also produced aspirational policies, though their documents were generally written to attain funding for foreseen implementation tasks. Municipal implementers also established operational policies, though much of this was unwritten, in part to flexibly accommodate for unforeseen responsibilities—such as following the specific directives of political leaders and senior managers or the demands of policy beneficiaries and social advocates. Precedents of practise also informed informal

settlements operational policy, which was a particularly significant form of civil service protection in light of the evolving (and oftentimes ambiguous) policy context.

- **People-oriented:** Outspoken informal settlement residents and their advocates—who generally undertook a populist framing by portraying policy beneficiaries as the ‘people’—generally demanded that the City adapt its top-down policies and processes to accommodate their bottom-up perspective.
- **Prescriptive:** Institutions such as SAHRC and civil society groups like SJC seemed to frame policy as prescribed rules that they could use as a regulatory tool. They hence preferred precise phrasing to the aspirational language used by national and municipal policymakers, as the latter is difficult to enforce. For example, in the aforementioned CoCT (2013h: 2) *System Procedure* operational policy, the City noted that it ‘will endeavour’ to achieve its aims. SJC advocates said they were frustrated with the City’s ‘permissive language’, for there were no criteria (such as timelines or the method officials would use) by which they could hold CoCT accountable.

Interestingly, the policy actors’ perspectives of policy did not always align with their expectations of what should occur throughout the policy-implementation process. For instance, while national government adopted a pluralistic framing, it advocated one mode of participatory planning and did not offer any alternatives to its consensus building approach.

7.3.1.2 Roles & behaviours

The following actors each participated in Cape Town’s sanitation policy process as agenda-setters, formulators, decision-makers, implementers, beneficiaries, evaluators and regulators:

- **National custodian:** As the official policymaker and regulator, the national custodian set agendas and formulated policy in the sanitation sector that influenced the design of municipal processes and the provision of new infrastructure. Its regulatory impact, however, has been minimal. I present the likely reasons for this in Section 7.3.2.2.
- **Municipal implementers:** As noted by the SAHRC, there is a ‘policy vacuum’ with regard to informal settlement servicing. This lack of national guidance—coupled with Cape Town beneficiaries’ rejection of nationally set policy and processes—left the development of informal settlement sanitation policies largely to local government

officials. CoCT has since adopted multiple policy roles in its jurisdiction as an agenda-setter, formulator, decision-maker, implementer and regulator.

- **Informal settlement residents:** Beneficiaries of *Free Basic Sanitation* influenced the design and provision of services in Cape Town by rejecting their intended role in the community-managed sanitation scheme. The Kosovo and BM case studies, moreover, indicate that informal settlement representatives and temporary workers influentially set agendas and affected implementation by communicating their dissatisfaction with the City either through its official participatory process or through protests.
- **Social advocates & the opposing political party:** Civil society groups (such as SJC and WCRLF) and the local branch of the ANC political party were agenda-setters and evaluators in Cape Town's sanitation debate. SJC was especially influential in the adaptation of the City's participatory processes and general transparency with data.
- **SAHRC:** The public institution evaluated the City's sanitation policy and programme for informal settlements, but it does not have regulatory authority like the national custodian, or legislative authority like Parliament or the Constitutional Court.

7.3.2 Policy outcomes

7.3.2.1 Perceived

In 2003, DWAF (2003: 2) disseminated its *Strategic Framework*, which the custodian characterised as 'a comprehensive summary of policy' that additionally outlined a 'strategic framework for its implementation over the next ten years'. DWAF (2003: 2) noted from that point that it would principally be 'a sector leader, supporter and regulator' of local governments, for newly-established municipalities could finally 'assume full responsibility' for service provision in the second decade of democracy:

We are now entering another important phase in the long process of building local democracy. We have established our new municipalities. Now we have to make sure they do their job of providing services to our people, efficiently, effectively, and affordably.

By 2012, the national water custodian stated that all residents in formal and informal areas of Cape Town had access to adequate sanitation (DWA, 2012: 38). CoCT (2014c: 78) celebrated its '100% access' achievement, and said the Department of Water Affairs' report indicated it had 'comple[d] with national guidelines'. SJC (2014a), however, queried the

City's 'common claims', and cited the 2011 national census and CoCT's own *Water Services Development Plan* as evidence of there being data 'discrepancies' amongst public institutions about sanitation access in informal settlements. Many Kosovo and BM policy beneficiaries would have also questioned the veracity of there being 100% access to sanitation in informal settlements, in light of failing municipal infrastructure near their homes and their alternative practises. The inconsistencies in government datasets and the conflicting interpretations of policy achievements are reflections of major faults in South Africa's sanitation policy process, which I discuss further in the next section.

7.3.2.2 Actual

In August 2013, national policymakers announced that they had to amend 'oversight and gaps in the current water policies' after 'a number of challenges' were revealed from 'several years of implementation' (DWA, 2013: 5). They especially highlighted that the government had yet to develop a 'coherent' economic regulatory framework for the 'entire water value chain', as well as 'Regulations to monitor the enforcement' of its free services initiative (DWA, 2013: 17, 14). Part of the reasons for not having its regulatory function established by the third decade of democratic rule were:

- The shuffling of water and sanitation custodial duties amongst five national departments¹²⁹ from 2008 to 2015;
- The on-going debate of whether regulatory functions should be conducted by the national custodian 'in accordance with the Constitution' (DWA, 2013: 7) or an independent institution (Camay and Gordon, 2005);
- The need to make 'significant amendments' to legislation prior to the implementation of new regulations (DWA, 2013: 17); and
- The national custodian having 'inadequate' policies to effectively enforce service delivery to certain standards (Muller, 2014: 35). For instance, Helgard Muller (2015: 285), who was DWAF's Chief Director for Water Services, said the Executive Cabinet 'never formally approved' their draft *Free Basic Water and Sanitation Policy*.

¹²⁹ DWAF was the national water custodian from 1994-2009. The Department of Water and Environmental Affairs (DWAE) became the water custodian in 2009 (Water Wheel, 2009). Conflict arising from widely-reported municipal sanitation scandals prompted the national government to transfer DWAE's sanitation portfolio to the Department of Human Settlements (DHS, 2010) a year later. The division of sanitation from the Department of Water Affairs, however, proved insensible, and led to DWS' establishment in May 2014.

Muller said the draft specified the manner that services were to be provided and that *Free Basic Sanitation* was thus ‘implemented and practised without a formal policy’.

These regulatory and policy gaps suggest that: (a) like, CoCT, the sanitation custodian’s policymaking and regulatory capabilities have been affected by continual restructuring exercises and unresolved debates over the past decade; and (b) CoCT has implemented policy with limited direction and critical oversight from the national custodian over the past fifteen years. These points are significant to highlight, for it indicates that the regulatory capabilities of the national government are limited. Despite its limitations, the national government (along with sanitation sector analysts whose research was funded by a state parastatal) contributed to the present policy debate by faulting poor sanitation outcomes to ‘unintended interpretations’ (DWA, 2013: 5) or misunderstandings (Mjoli and Bhagwan, 2010: 1) of national policy by municipal implementers. Yet, how can municipalities be faulted for misinterpreting national policy when policymakers intentionally framed it to allow for implementers’ accommodation according to local circumstances?

Moreover, national policymakers provided no criteria for measuring what are accessible, safe and appropriate basic sanitation facilities or services. Of course, as the former Director-General of DWAF pointed out, the national government’s definition ‘cannot cover every item’ and aspect of sanitation delivery (M Muller, 2015: 275). For instance, Mike Muller (2015: 275) noted that the basic standard ‘doesn’t deal with security of using a facility outside a house in the middle of the night’, but ‘if it did, the sanitation policy would morph into a security policy’. He thus posited whether ‘the broad definition is adequate’, in light of the implementation conditions?

Conflicts amongst local policy actors in Cape Town suggest that national policymakers’ blanket basic sanitation definition was not adequate for implementation. A review by the Department of Water Affairs (2012: 11) also indicated that municipalities across the country struggled with the ‘vague’ language used in legislation and policy in general, as neither provided ‘sufficient guidance’ as to what constitutes ““access” to basic sanitation’. Matland (1995: 155) previously noted that ‘exceedingly vague’ standards and mandates that lack ‘specific goals’ and ‘reasonable yardsticks’¹³⁰ to measure outcomes often resulted in ‘more general societal norms and values’ being used as evaluative criteria in

¹³⁰ Measurement by ‘yardstick’ is a popular idiom used in the United States to refer to standards in judgment. A yard is a length of measurement that is equal to 3 feet (0.9144 metre).

policy implementation. In lieu of explicit policy language and means of measurement, the case studies indicate that local actor's norms and values were significant evaluative criteria in Cape Town's sanitation debate.

Additionally, municipal implementers in Cape Town could not follow national sanitation policy as it was designed—for policy beneficiaries and their advocates largely rejected the top-down policy approach that influenced the City's decade-long implementation of community-managed toilets in informal settlements. Residents' practises and their advocates' conflicts with municipal implementers further revealed the following problems with national policy:

- **Informal settlement policy vacuum:** National policymakers had not intended informal settlements to still exist beyond 2014. The case studies indicate there being a lack of national guidance for servicing informal settlements in light of this eradication aim. This vacuum was problematic for municipalities, as they could not effectively apply national sanitation policies (which were premised on the provision of services on a household basis) in informal settlements.
- **Unclear *Free Basic Sanitation* vision & uncommon definition:** Upon learning of CoCT's informal settlement janitorial service, Mike Muller (2015: 277) said that the national 'vision' of the sanitation component likely was not 'clear'. While the national and municipal governments only intended to provide infrastructure to the poor at no cost, informal settlement beneficiaries' actions indicate that they expected (or desired) free O&M as well. Muller (2015: 277) construed that the 'lack of definition' for what precisely is 'free' likely complicated *Free Basic Sanitation* provision in Cape Town.
- **Out-dated & confusing guidance:** Interestingly, the SAHRC (2014b: 52–53) cited the 2004 *National Sanitation Strategy* (see Section 5.1.8) to argue that CoCT had contravened national policy by providing un-sewered facilities in informal settlements for prolonged periods. The SAHRC likely was not aware that DWAF changed this policy position in 2008 in light of countrywide implementation challenges (see Section 5.2.3). The SAHRC's use of an out-of-date document, nevertheless, represents confusion over the guiding policy that dictates the sector.

The above points are all indicators of the challenge of providing practical policy guidance that realistically bridges the gap between the national government's general

aspirations and actual on-the-ground conditions. In light of national government's regulatory shortcomings and inadequate policy, CoCT effectively became the preeminent sanitation policymaker for informal settlements. Dissatisfied informal settlement residents' and social advocates' rejection of the government's top-down rationale eventually motivated the City to implement janitorial services for waterborne informal settlement toilets in 2012 as part of its constitutional servicing obligations. This municipal sanitation policy flouted a significant aspect of national policy—namely the condition of policy beneficiaries being 'first and foremost' responsible for their sanitation needs as national policymakers had intended (DWAF, 2001c: 20). CoCT's departure from national policy was to accommodate the practical implementation realities with the lived realities of informal settlement beneficiaries. This outcome suggests that local actors' conflicting perspectives and practises can and have significantly affected the formulation of sanitation policy.

7.3.3 Policy revision

Democratic South Africa has made massive strides in establishing a sanitation servicing policy framework to benefit the poor in its first twenty years of rule—as the former Director-General of DWAF noted—from scratch. In spite of these significant post-1994 efforts, the universal basic sanitation access goal has yet to be achieved. Inordinate amounts of media coverage and the public's interest eventually prompted a review of sanitation policy and practises across the nation. National policymakers have since recognised that the government requires 'one streamlined water policy' (DWA, 2013: 24), in order to clarify its current policy positions and address present implementation and regulatory challenges that impede access to services. In particular, policymakers admitted that *Free Basic Sanitation* 'requires further review and discussion before it can be included in the consolidat[ed] policy document' (DWA, 2013: 24). The present Minister of Water and Sanitation, Nomvula Mokonyane (2015), moreover, stated in 2015 that the newly-established national custodian needed to 'revise the industry norms and standards for sanitation'. In light of policy actors' perspectives and the actual policy outcomes discussed in the previous section, national policymakers should bear in mind the following when revising the sector's policy, approach and standard.

7.3.3.1 Conflicting rationalities incorporation

In 2015, a CoCT implementer said, 'We keep making the same mistakes' with sanitation in informal settlements. He reasoned that their repeated failure was rooted in the City's limited

‘interrogation’ of why their initiatives fail. His comment draws attention to a general problem with policy analysis in South Africa’s broader sanitation sector—namely, that professionals with science backgrounds have largely been tasked with tackling this complex problem. While such expertise is needed, there seems to be reluctance by the technically inclined to accept the politics inextricably tied to the lived and practical realities of service delivery. For example, the following quote from a CoCT politician was made in response to an operations manager’s complaint about sanitation’s ‘politicisation’ at the 2014 Janitorial summit:

Whatever happens in life is politics. Where I build a dam is politics. Whatever I do is politics. Perhaps there’s a little bit more emphasis than what we’d normally have in sanitation, but there’s always politics.

Claiming that sanitation can be de-politicised is to ignore the reality before us, for the case studies revealed that sanitation cannot be readily separated from the social and institutional politics that oftentimes drive service provision. Cameron (2014: 98) similarly found that ‘politics will inevitably play a role in service delivery’, in light of South Africa’s multi-party democracy. But many policy actors I encountered supported sanitation’s de-politicisation, which essentially meant basing provision upon technical feasibility. The dominance of such framing in the sector, however, has resulted in the adoption of approaches that policy beneficiaries and social advocates later rejected as being technology-driven, top-down and undemocratic.

Funke et al (2014: 34) likewise found the ‘predominance’ of professionals with science backgrounds in South Africa’s water resource sector problematic, for these professionals tended to not engage with ‘the complexities of policymaking’, which resulted in a lack of a transdisciplinary approach to multifaceted water resource management issues. Funke et al. (2014: 34) notably characterised transdisciplinarity not as ‘merging’ scientific methods with other disciplines—as has commonly occurred in the national water sector, but as a governance approach whereby ‘a broad group of actors from government, academia and civil society’ represent a ‘wide variety of disciplines to solve problems together’. In adopting a rationale that encompasses technical and social science framings, Funke et al. (2014: 34) argued that the water sector could steer itself away from ‘propagating buzzword concepts or panaceas’ in policies that have yet to be successfully applied in practise.

In hindsight, Mike Muller (2015: 272) noted that,

The first decade of South Africa's democracy was a period of rational policymaking because the interest groups that influence policy had not congealed, had not coalesced.

Put simply, interest groups generally did not affect policymaking from 1994 to 2003, because they had yet to establish themselves. Muller said that in light of the 'changing circumstances', as advocacy groups have since emerged, policies should reflect 'a more diverse set of objectives'. Yet how can the sanitation sector feasibly include differing rationales in its policies? Like Funke et al. suggested, Helgard Muller (2015: 288) said that a diverse range of actors needed to discuss and consider their differences in a facilitated forum:

For me, the whole issue is those components need to actually talk to each other. Because, in the end, if we want to move to a solution, we must move from our own standpoint and move to a mutual ground where we agree. And it seems some people don't want to move.

Given that sanitation is a crosscutting concern that a multitude of interest groups are concerned with, the sector's technically inclined managers will likely need to work with dispute facilitators to tackle the differences in world-view, motives and approaches that emerged in the second decade of democracy.

7.3.3.2 Streamlined sanitation approach

National policymakers advocate that municipalities align sanitation delivery to the government's broader poverty alleviation, housing, health and environment campaigns. But, despite the promotion of integrated planning, DWAF (2001c: 17, 20) previously acknowledged that it struggled to overcome 'uncoordinated planning' and 'a lack of consistency of policy, funding and implementation' amongst the national institutions responsible for different aspects of sanitation during the first decade of democracy. The study's case studies moreover revealed that municipal implementers have since struggled to coordinate sanitation programmes that address multiple policy agendas, for components of the national policy and local implementation pipeline still operate in relative isolation.

Given the on-going challenge of managing multiple objectives and actors, government institutions should perhaps re-consider the efficacy of its current decentralised structure to coordinating basic sanitation functions—for it needlessly introduces additional veto and clearance points to an already complex process. For example, in recognition that its fragmented structure has adversely affected service delivery, a key informant noted in June

2015 that CoCT's Utilities Directorate intended to coordinate the management of all informal settlement waste by integrating WSISU with its Solid Waste counterpart. The time-consuming re-structuring exercise will complicate immediate operations, but such institutional changes are nevertheless needed, as the separate management of sanitation-related services has proven to have ill consequences in informal settlements.

Like CoCT, the Brazilian government has similarly concluded that service delivery should holistically address all services that affect on-the-ground environmental conditions. Brazil's policymakers, however, broadened their sanitation policy objective to include the removal of all water and waste (Heller, 2012; Heller et al., 2014). If South Africans are interested in holistically revising their sanitation servicing frameworks, they can perhaps look towards Brazil for insight, as its national government has re-framed basic sanitation services to include the:

- Provision, collection, disposal and/or reuse of domestic waste (human faeces and urine, greywater and rubbish) and stormwater; as well as the
- Control of zoonotic vectors.

7.3.3.3 Basic sanitation standard criteria clarification & evaluation

In many ways, policymaking for sanitation in South Africa follows the example set by international organisations, in that both national and international agenda-setters presume that a paucity of political will to make water and sanitation 'a clear political and developmental priority' constrains access in the present-day (WASH United et al., 2012: 11). International organisations have since produced numerous reports and guidelines that advocate sanitation provision as 'a human right that is essential for the full enjoyment of life' (UN JMP, 2014; UN-Water, 2011; UN, 2010a: 3, 2010b, 2014; WaterLex and WASH United, 2014). This discourse generally centres on having national governments adopt, implement and enforce laws and policies that are consistent with the international agenda. South Africa's policymakers coincidentally follow this view of policymaking, as they expect policy implementers and beneficiaries to subscribe and comply with their rules and methods.

But this 'narrowly legalistic or formulaic version of a rights-based approach' to sanitation (Mcgranahan, 2015: 243) predominantly frames policy from a pluralistic and prescriptive perspective, and provides little helpful guidance on administering rights-based

sanitation services. In particular, as eThekweni Municipality's former Head of Water and Sanitation remarked,

What is often overlooked is what does the "right" really mean in practical terms—how much, what quality, how often, how far, how safe to access? (Neil McLeod, as cited by Muller, 2011: 7).

This thesis has highlighted the need for national government to clarify the criteria of its broadly framed basic sanitation standard, by offering definitions and means to assess what is 'safe', 'reliable', 'private', 'accessible', 'sustainable' and 'appropriate' (DWAF, 2003: 46, 66). National policymakers, for instance, have explicitly defined a basic water supply as infrastructure that supplies: (a) a stipulated quantity (25 litres of water per person per day); (b) at a specific distance (200 metres from a household); and (c) at a particular rate (minimum flow of 10 litres per minute for communal taps) (DWAF, 2003: 46, 66). While the sanitation standard does not need to be quantifiable like the water standard, there should be a means for measuring it for implementation and regulatory purposes. Helgard Muller (2015: 288), for instance, suggested that policymakers consider the World Health Organization's new indicators for concerns such as safety to improve South Africa's present sanitation policies.

Moreover, as Elmore (1980: 604) said, evaluative criteria for policy should include an estimate of the limited ability of actors at one level of the implementation process to influence the behaviour of actors at other levels[,] and on the limited ability of public organizations as a whole to influence private behavior.

Elmore, in other words, argued that effective policy implementation is often dependent upon the actors' influence in changing social conventions or individual practises in a particular situation. His observations of the limitations of policy implementers and public institutions are relevant to South Africa's sanitation sector, for much of present discourse faults municipal implementers for failing to provide services, and focuses on health and hygiene programmes as the most effective means of changing the private behaviours of *Free Basic Sanitation* beneficiaries (DWS, 2015; MSTT, 2012; SAHRC, 2014a).

7.4 Summary

I ascertained the key findings outlined in this chapter by applying a multivariate implementation variables framework to analyse how similar or conflicting rationalities amongst various policy actors might have affected the design and provision of sanitation

services in two informal settlements. The framework, which was inspired by Mazmanian and Sabatier's (1989) work, was key to my analysis, as it helped me understand the interplay between various actors' world-views in Cape Town's sanitation impasse. The 'Policy target' section firstly covered the rationale of national policymakers, which initially influenced local municipal officials interpretation of sanitation policy. Contestation during the 'Policy-implementation process' however, revealed shortcomings in the government's top-down policy and conflicts between the rationales of policymakers, implementers, beneficiaries and social advocates. The 'Policy evaluation' section summarised the conflicting rationalities in light of actors' perspectives, expectations, roles and behaviours throughout the policy process. Using this framework hence was appropriate for a study about conflicts in policy rationale, as it helped reveal how the design of sanitation policy and provision of informal settlement services changed after 'the politics of implementation takes place' (Mazmanian and Sabatier, 1989: 30).

South Africa's democracy has been lauded worldwide for its transformative socioeconomic policy and legislative frameworks that have boldly redressed racial disadvantages rooted in historic discriminatory practises. In particular, the national government has made massive strides in establishing a comprehensive sanitation policy during the first two decades of democratic rule. The implementation of sanitation in Cape Town, however, indicates tension between the vision and approach espoused in national policy and their feasibility in places like informal settlements. Ultimately, the impracticality of national policy, combined with initially ambiguous and then belated direction for servicing informal settlements, has largely left municipal implementers with the responsibility of developing, piloting and adjusting their own sanitation policies without guidance from national government. The key findings from this thesis suggest that while national government has preeminent authority on the framing of over-arching policy aspirations, municipal implementers ultimately formulated their own workable policy based upon local actors' sanitation demands and practises, as well as what they deemed feasible for informal settlements. The study indicates that South African informal settlement sanitation policy design and implementation can be improved by revising the policy process to reflect both lived and practical realities; streamlining government systems to holistically manage sanitation-related problems; and clarifying the vaguely defined basic sanitation standard.

8. Conclusion: Sanitation rights, policy wrongs

This thesis considers how conflicting rationalities amongst various policy actors has affected the design and provision of informal settlement sanitation services. Using a policy implementation studies framing and ethnographic case study approach, I presented various viewpoints of sanitation policy formulation and implementation for informal settlements during South Africa's first two decades of democratic rule. My case studies indicated that municipal implementers, who are under immense pressure to overcome historical wrongs by fulfilling sanitation rights through consensus building, often face conflicting directives and demands from different arms of national government, municipal decision-makers, informal settlement residents and social advocates. Policy beneficiaries' protests and social advocates' disputes with municipal implementers have especially revealed tension between the top-down vision and approach espoused in national sanitation policy and their feasibility in places like informal settlements. The impracticality of national policy, joined with initially vague and then belated guidance for serving informal settlements, left municipal implementers with the responsibility of devising, piloting and revising their own policies without direction from their national counterparts.

This thesis argues that while the national custodian has preeminent authority in framing policy principles, municipalities like Cape Town tended to be the most significant policymakers in the sanitation sector, for they used their discretion to design workable policies that reflected the lived and practical realities of policy implementation. In light of this argument, the prevailing viewpoint of turning national sanitation policy into practise misses how local perspectives and experiences have dynamically re-shaped policy at a municipal level. South African informal settlement sanitation policy needs to be amended to engage with conflicting rationales; streamline public services to holistically manage sanitation-related problems; and clarify vaguely defined basic sanitation standards.

This thesis concludes that the South African government's overarching consensus building approach, decentralised sanitation programme and vague minimum standards have been unworkable to-date when addressing the wicked problem of sanitation services in informal settlements. The study highlights the need to account for different policy rationales and implementation realities in sanitation policymaking, so that policies and processes are reflective of present-day developmental needs in informal settlements. As noted by DWAF's first Minister (1994: 2) twenty-one years ago, all those interested in the water and sanitation

sector should be mindful of continually revising policies and tactics to meet the country's needs:

As we travel this road as a nation we will have to adjust our policies and procedures... The final chapter on policy on any matter is never written.

8.1 Knowledge contributions & further research

My thesis contributes insight into what the right to sanitation has meant from the lived reality of informal settlement residents and the practical perspective of municipal implementers. In particular, it shows how civil society can influence public policy through protests, practises and advocacy, and joins a body of policy implementation literature that shows how municipal implementers exercise considerable influence over policy. This latter point raises the issue of how the supposedly distinct phases of public policy formulation and implementation are, in reality, limited, for it simplifies the interplay between policy and practise. Further research on this topic in South African informal settlement developments can perhaps broaden our understanding of this complex interplay, for the purpose of constructively improving public sector policymaking and performance.

In addition, the research conducted for this study revealed the following needs:

- As noted in Chapter 1, there seems to be little interest in understanding how 'rival understandings' amongst policy actors can 'influence and structure' water and sanitation operations in both research and practise (Castro and Heller, 2012: 13, 5). Further studies that engage with irreconcilable differences in rationale and approach can help advance theorisation and service delivery by offering realistic recommendations that are based upon actual policy design and implementation examples.
- The data presented in this thesis suggests that the financial calculations for *Free Basic Sanitation* in informal settlements were underestimated, because policymakers had not budgeted for the long-term support of such services when devising the policy or calculating their financial allocations. Studies should be conducted on how municipal tariffs can be re-designed to account for non-revenue services in informal settlements.
- The designer of eThekweni Municipality's *Free Basic Water* tariff said stepped pricing significantly affected water consumption habits in households with 'limited budgets', because consumers reduced their usage to stay under the free services

threshold (Bailey, 2003: 5–6). While this finding suggests that pricing can successfully reduce unnecessary usage in low-income households, Bond noted (2014: 9) that the pricing policy actually created affordability constraints for poor households that could ill-afford rates in the next tariff block. Further studies should be conducted to gauge whether the government's pricing policy has detrimentally affected consumption in low-income households by making services unaffordable.

- This thesis highlighted the need to clarify vague basic sanitation standard criteria. A semantics study that breaks down how people have used and interpreted certain criteria could aid this exercise. Such a study should also reflect upon the involved actors' intentions and expected outcomes of sanitation policy.
- My research demonstrates the significance of local level policy design in the sanitation sector. Additional research should be conducted on the influence of local policy in national policy formulation, and the feasibility of using local circumstances to refine national guidance.

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Appendix A: Field note excerpt

Ethnographers commonly write detailed records of empirical data from their field research. Known as ‘field notes’, I was meant to note the following when conducting fieldwork: (a) the questions I had asked and the answers I received; (b) the content of the conversations I had had; and (c) what I had experienced or observed at a certain time. The goal in recording these details was so that I did not have to rely on memory alone when recalling an experience, story or event. The sample field note included in this thesis is an example of what I observed early one morning in BM Section on a rainy day. One of the ablution block janitors (who is referred to as X2) had said the day before that she needed to replace some uniform items and to address a problem she had with clocking-in at the local fire department. I asked X2 if I could shadow her when she was in Bellville, and X2 agreed. We decided that we would meet at 7:00 at the ablution block to carpool together. The sample field note does not include any identifiers such as names to protect the identities of the people I interacted with.

3 June 2013

I got to the ablution block at 7:15, which was fifteen minutes later than I had intended. I stopped in front of X1’s house on Lansdowne Road and put my hazards so that vehicles could see my car was stopped at the side of the road. It was really rainy and dark. I didn’t see X2 by the road so I jumped out of my car to fetch her from inside the ablution block. I saw a woman who was wearing a large pea coat that covered her body walk out of the facility and thought it was X2 because she was wearing pants overall with a reflective stripe. As I neared her though I saw that it was someone that I did not recognise. We greeted one another and I continued past her into the ablution block.

The ablution block was very dark, and I felt a little tentative about going in because it seemed empty. The peak hour for the facility must have just passed, or people were staying indoors because it was so cold. I quickly walked past the men’s units towards the women’s toilets to see if X2 was there. It was too quiet when I got to the women’s corridor though so I peeked in and straightaway turned around when I saw she wasn’t there. I wanted to leave immediately because I didn’t feel safe being alone in the ablution block. I was almost at the facility’s exit when I noticed out of the corner of my eye a strip of light emanating from the men’s shower stalls. I knew then that one of the security guards was in so I walked past the men’s toilets and peered through the space between the door and the concrete doorframe. I could see X3 sitting on the bench through the crack. I also saw that she had padlocked the door from inside the shower room so I knocked on the door and I said hi to her.

X3 got up to unlock and open the door for me. As I walked in I commented on the nice nest she had set-up for herself. She had folded two blankets in half and spread them across the concrete benches. She sat back down on the bench and covered herself with another blanket. To her right was a glowing paraffin lamp, and on the floor in the centre of the room was a heater that was probably also fuelled by paraffin. The enclosed space stank of paraffin.

I commented on the smell of gas, and X3 just looked bewildered. Rather than explaining I asked if X2 was there, but she looked confused again. I wasn't sure if X3 couldn't understand me because I spoke in English so I asked the same question again but used X2's Xhosa name, but she still looked confused and didn't say anything. I said I would call X2 from my car and said bye. I wanted to return to my car in case X2 was there. I also thought it would be a lot warmer than the ablution block, and it would be a private space where I could call X2 and write up my notes. I walked back to Lansdowne Road and got into my car. I locked the doors and turned the ignition on so I could heat the car. I then called X2 but she didn't pick up. I sent her a Whatsapp [cell phone message] to let her know I was still waiting for her.

(7:22) The only light on the road are from cars and taxis that are whooshing past me. There are no working streetlights or area lighting on this stretch of Lansdowne Road. The lights from the next street (towards Spine Road) are working, and there are lights in the distance at the Mew Way turnoff.

(7:40) There's enough light now from the rising sun, which started to peek through the clouds about ten minutes ago. My research assistant saw me waiting in my car for X2 when he walked past to go buy tea. I said I'd come by his house later to 'go walking' around BM. He was wearing his rain jacket and the gumboots I bought him. X2 still hasn't answered the Whatsapp or SMS I sent.

Appendix B: Interview with Mike Muller

Mike Muller was the Chair of the ‘Standing Committee on Water Supply and Sanitation’ (the primary policy forum on water which, during the transition between 1990 to 1994, brought government and the democratic movement organisations together to develop policy positions for a democratic South Africa); a Deputy Director-General of DWAF from 1994 to 1996; and Director-General of DWAF from 1997 to 2005. I interviewed him on 21 April 2015 to discuss: (a) the sanitation policies and policymaking processes during South Africa’s first decade of democracy; and (b) the current debates in the broader water sector. What follows are the questions I asked Mr Muller and his responses. Mr Muller and I have condensed and edited the exchange for clarity.

Background information

Please explain the policymaking process for DWAF, and your previous role.

- On policymaking:
 - ‘The policy did not just come from DWAF—the post-1994 policy was strongly influenced by the RDP. The RDP Process was a very intensive policy process, which drew from a lot of other activities. The RDP was a benchmark that set out the bare bones of policy... What we were doing was fleshing out details around that. A lot of that detail had already been developed in SCOWSAS.’
 - ‘The first decade of South Africa’s democracy was a period of rational policymaking because the interest groups that influence policy had not congealed, had not coalesced—so you could formulate policy without having to deal with a lot of political economy stuff on the side.’
 - ‘Post-2000, the establishment of local government country-wide’ necessitated the ‘development of new implementation policies and strategies’ that ‘again followed rational policymaking processes, to take account of their Constitutional mandate to provide water services.’
 - ‘There is always going to be a distinction between what is formal policy and what is a working policy document.’ He explained that the former is ‘approved by Cabinet’ and the latter ‘guides the work of the department and doesn’t have to be approved by Cabinet.’ He noted that, ‘It’s only where you start getting division of functions between departments where it’s necessary to have a Cabinet approved policy document. And that’s important to consider when we discuss who was responsible for sanitation.’
- On the relationship between national and municipal government:
 - DWAF largely formulated the ‘sector policy, and then you have someone that has to integrate it with other sectors at a local, operational level because the national institution did not do the integration.’ Muller commented that oftentimes ‘the municipality has to integrate’ the national sector policies as part of its ‘broader approach.’

- ‘We were not implementing [policies] in metropolitan areas, DWAF did very little because metropolitans had their own (albeit interim) administrations and the needs in the smaller municipalities and rural areas were much greater.’
- Comments on his role:
 - ‘In water and sanitation, there was a policy process under the banner of ‘Standing Committee on Water Supply and Sanitation’, which I chaired from 1991 to 1994. (Muller explained that SCOWSAS ‘had a number of incarnations, the first being “water and sanitation 2000”’). A lot of DWAF policy actually derived from the pre-1994 transitional process. The bureaucrats were responsible for informing it from a technical perspective.’
 - ‘The 1994 *White Paper* is an example of a weak process. It was very rushed. There was not a great deal of consultation because there was a Minister who was concerned with leaving a legacy and demanded a product within his first 100 days... I focused on damage control. In 1994, I was busy setting up the service delivery programme and my concern with policy was to ensure that there was nothing in it that caused trouble or obstructed processes. I was responsible for implementation because there was not a national policy yet.’

How has your professional training and experiences affected your contributions to national sanitation policies?

- ‘I am a registered professional engineer but have also done a lot of journalism, research and campaigning in areas of health and development generally. I worked in Mozambique for a long time from 1979 to 1988 where, amongst other things, I ran the national low-cost sanitation programme. We had a pilot in 10 cities. At the time, it was an international flagship. So I had a lot of contact with sanitation providers in local communities and a lot of discussion with international players about how to service them. Oftentimes I did not agree with the latter. A particular area of disagreement was on whether to subsidise or not subsidise services.’ He noted that now there is a ‘30-year track record’ from the Mozambique pilots, which shows that ‘subsidy flows determine whether coverage levels increase.’
- ‘Without significant community coverage (at least 50 – 70%) many of the public health benefits from improved sanitation do not materialise at household level because of environmental contamination at community level.’

DWAF Policymaking

Your 2008 *Free Basic Water* and 2013 *Washington Consensus* papers both touch upon the possible influence of global policy discourse in South African governance. I also noticed in my literature review that popular international concepts largely informed the principles underlying DWAF’s policy positions. Why did DWAF look towards international practice for direction when formulating its policies?

- On the practicality:
 - ‘It’s useful to have definitions that everyone agrees to, it saves you time, but using the language does not mean that you formally adopt someone else’s approaches. You adopt your own approach’ in practice.
 - ‘You can use international references to bring comfort and put pressure to a domestic policy audience, thereby legitimating a policy with international references, in the same way that you can legitimate your national policy to your international donors.’

- Muller said, however, that South African policies are ‘very different on a number of key issues: FBW and sanitation subsidies were completely contrary to international discourse.’
 - For example, he said that ‘although the EU supports the human right to water, its representative had sent me a letter complaining about the FBW policy; he had been obliged to be seen to assert pressure from their side’—essentially saying, ‘Your policy is inconsistent with ours’.
 - Muller commented that ‘South Africa was not an aid dependent country... In fact it was receiving far too much aid given its status as a middle-income country. With aid, you had to talk the language of the people who gave it to you. So if you’re dealing with aid you have two situations. I worked in Mozambique where the budget was 75% donor funded, so you had to be polite, you had to understand what they want to do, and... be comfortable, use their language, to report back.’ The second situation was South Africa’s position. He estimated then that, although ‘15% of SA’s total aid flow was coming into the water sector’, with the EU being the largest funder, ‘it does not mean that we were being driven by international policy; but there was a degree of politeness that needed to be observed when you’re taking large amounts of money’ from donors.
 - He noted ‘we were quite good at using the available aid’, and that DWAF received about 15% of the overall aid grants. Because ‘we were not dependent’, DWAF could accept the funds ‘without having to compromise by doing what we didn’t want to do.’ Muller said that, globally, policies tended to be ‘drawn up by Europeans and imposed on African and Asian governments. One of the reasons why I keep engaging in this stuff and Africa’s challenges of establishing its own policies, is because South Africa isn’t dependent; we can speak out quite loudly and aggressively on issues where we don’t agree.’ Despite his forthrightness and the donors’ opposition to fully subsidised services, Muller added that he had and has a good relationship with donors. This was, in part, due to the donor representatives having respect for DWAF’s policymaking and operational capabilities. He remarked that ‘just because your organisation has a stupid policy doesn’t mean you’re comfortable with enforcing it.’
- Policies may also have reflected ‘international discourse’ because ‘there were people who were strongly influenced by this discourse in the system’:
 - Len Abrams, who had previously ran a rural NGO and later went to work with the World Bank, was the Minister’s advisor in 1994 and principal author of the 1994 White Paper. ‘It is relevant, because there is contestation about how much the World Bank did or did not affect water policy.’ He noted that Abrams’ Rural Advice Centre was primarily funded by international organisations, so ‘he had to talk that language because he was dependent on them. He later left South Africa to work for the World Bank.’
 - ‘Piers Cross came from the World Bank—I recruited him to run the Mvula Trust. He did come in with his particular perspectives but was guided by the Trustees and the approach taken reflected South African policy.’
 - ‘I also had the fortune of having to work in Mozambique where we had to manage donors and did a good job of it. I learnt most of what I know about donor management during that period.’ He noted that familiarity with international donors was beneficial, because ‘It enabled [DWAF] to play the donor game well and get an awful lot of money and useful support from them—DfID and the EU in particular.’ Looking at the present situation, Muller said South Africa is an ‘upper-middle-income now and we shouldn’t be getting aid anymore... it has more or less dried up.’

Did DWAF collaborate with its Housing/Human Settlements counterpart to devise sanitation policy and standards for informal settlements? If so, what was done? If not, why not?

- Noting that this is ‘very important’, Muller flipped through a draft of the 1996 *National Sanitation Policy* and noted that the headings focused on ‘Water’, ‘Health’ and the ‘Environment’, ‘so Housing did not come in.’ In addition, he noted that ‘Local government’ was not included, but this was ‘not entirely surprising’ as country-wide local governments were only formally established in 2001.
- In hindsight, Muller stated that Housing were ‘never really active participants’ in sanitation policymaking. ‘It was always a problem to get Housing engaged in the sanitation debate. Certainly in that early phase. And that’s because people were talking about what subsidy flows would be used for. If the housing subsidy included internal services then it reduced the subsidy for the actual house. It was essentially a bureaucratic response over who would administer and benefit from the subsidy.’
- ‘There was certainly recognition of the need to cooperate but there wasn’t always successful collaboration at a policy level. And at an implementation level housing was implemented through channels that didn’t really involve DWAF.’
- ‘The intention was that informal settlements were a temporary phenomenon and would be resolved by a formalised approach—which a lot of governments hope and don’t necessarily achieve.’ So informal settlements are seen as a part of the ‘temporary fabric’ of urban areas, ‘whereas rural areas were larger scale, more permanent and service provision affected everyone in those areas.’
- With regard to informal settlement-specific standards, Muller commented that:
 - ‘I don’t understand why you should have a separate’ standard for informal settlements.’ Reviewing the 2003 *Strategic Framework’s* Basic Sanitation Facility and Service standards, he noted that informal settlement services were covered by the ‘fairly generic definitions.’ Muller explained that ‘unless there was something very specific, a policy had to fit all situations.’ Put differently, it had to be ‘broad enough to cover all situations that might occur within it.’
 - ‘It was recognised that it would not be feasible to have an individual household service in some places’ and ‘that it is just bad policy to propose something that could not be achieved.’
 - Muller remarked that the *Strategic Framework* definitions are ‘not bad’ because a standard ‘cannot cover every item’ and every aspect of sanitation delivery. Hence he posited that the policy question should be whether ‘the broad definition is adequate’? For instance, he noted that the basic standard ‘doesn’t deal with security of using a facility outside a house in the middle of the night; if it did, the sanitation policy would morph into a security policy and I suggest that it shouldn’t.’ Muller added as an aside that, ‘In an insecure area you would design your sanitation policy differently than a secure area.’
 - When considering the sanitation needs of informal settlements, Muller suggested, ‘That’s where it’s probably helpful to stop looking at policy and start looking at political economy—especially in Cape Town. If you have a group of people who are going to mobilise and raise sensitive issues, then they aren’t necessarily measuring policy to meet norms but seeking to mobilise opposition. It’s a different business. Cape Town is a particular case because you have an opposition party in local government, so sanitation is particularly sensitive for political mobilisation.’ Muller further noted that ‘if you had the opportunity you would look at the other municipalities. Why is there so much attention on this issue in Cape Town? Because

the political control in Cape Town belongs to another party, whereas in Johannesburg there's not as much political noise.' In cases such as CT he argued, informal settlement sanitation is 'not a policy issue', because 'arguably, no policy would be acceptable. It's a political economy issue. It's interesting that political economy analysis is becoming increasingly popular and legitimate as a framing for development policy and strategy development—a number of donors are asking' for such analysis.

In your 2012 article on *Polycentric governance*, you noted that water resource functions encompass: (1) Monitoring; (2) Planning and strategy; (3) Administration and enforcement; (4) Water-specific and multi-purpose infrastructure; and (5) O&M. Did the formulation of *Free Basic Water and Sanitation* account for all of these functions?

- Muller pointed out that I conflate different water management functions in my question, as there's a 'rather important distinction between water resources and water services' that is reflected in South African legislation and policy. 'Water resources looks at the management of the natural resource, including pollution control. The water resources function was well developed before 1994 while the water services function (water supply and sanitation provision) did not exist at a national level at all—that had to be created. So DWAF had two different policymaking processes—one that was well established, the other starting from scratch.'
- 'One of the issues that arose was that the Minister had a deep desire to leave landmarks and his legacy—he wanted a National Water Code in legislation. He was a Professor of Administrative Law for thirty years but he had not read the relevant sections of the *Constitution*, which he sometimes claimed to have drafted. The *Constitution* divides responsibilities for water between national government (water resources function) and municipalities (water and sanitation services). Most of the places in the world have distinct legislation for the two separate functions. While there is a challenge covering water all in one policy field, the separate management still has to coordinate between them because there are lots of interfaces.'
- Muller emphasised that water resources and water and sanitation supply 'run on different legislation, mandates, and policies', and the two functions should be managed separately. 'Water supply and sanitation services does not address the management of water resources—except when the interface becomes relevant, placing constraints on service delivery, such as pollution from wastewater or identifying where the raw water supply is going to come from. And then that normally requires an interface with the national resource institution.' He noted that there is 'a deep desire at a political level to have one policy and legislative framework for water. They haven't understood why it was separated to begin with, and they'll run into a constitutional roadblock if they try to integrate it.'
- 'We thought it was very important to recognise the different functions and have them allocated at the right level.' Using examples of struggles in the US and Australia as countries trying to 'overcome' regional resource debates, Muller stated that, 'South Africa has enough problems without creating new problems so water resources had to be allocated at national level.' He suggested that I look up a book chapter he had previously

written (using the keyword ‘federal’)¹³¹, which explains the process that led to the allocation of water functions and authority in South Africa.

- I noted that this sounds like a classic struggle between centralising and decentralising functions in government. Muller affirmed it might be a matter of ‘centralising and decentralising but you need to be clear what are you centralising. You can’t look just at “water” ... for instance, look at services using water’, which he explained are ‘usually relatively local. Water resources, on the other hand, often go beyond national boundaries, across internal political boundaries and are inherently national. That means decentralising is only relevant to one part of the water management process.’

Free Basic Sanitation implementation

Has the implementation of *Free Basic Sanitation* followed the vision of national policymakers? If yes, in what ways? If not, why not?

- ‘I don’t think that the vision was very particularly clear. Sanitation is much more complicated than Free Basic Water. You talk here about janitorial services. In FBW we won’t bill you for water that is provided. We can ask you to fetch it yourself but what we will say is the cost of this basic element will be zilch. But in sanitation what should be free? Is it the infrastructure? The care of the infrastructure?’ Concerning care, Muller noted that, ‘In a single household facility, the household is expected to take responsibility, He asked, ‘If a facility is provided to five households, is it the households or the local government’s responsibility to care for on-site O&M?’ Muller answered that it is ‘absolutely not’ the state’s duty, but the ‘lack of definition’ seems to have complicated implementation.
- He noted, ‘Cape Town has probably gone further than most for trying to oblige the community through the janitorial services and they haven’t been rewarded because it was not an issue of the minimum standards. It’s an issue of the politics. I have some sympathy for them because I walked through Khayelitsha some years ago when a delegation with Bill and Melinda Gates visited South Africa. Melinda wanted to walk around, so I prepped to make sure I knew what was going on in Khayelitsha.’ He remarked that ‘People weren’t trying to take me to the good stuff’, but he was impressed with the ‘huge number of innovations’ he had observed; these included a ‘flush toilet per 5 households, and the city gave them a lock and key. The community-managed toilets seemed to me like a really good model where due to the physical circumstances, you couldn’t put toilets in every house.’ He noted that it seemed then that ‘they could cope with five households’ in the community-managed model, and that the people he met had said that ‘they didn’t like public toilets open to everyone because they couldn’t be managed.’
- Commenting on the community-managed model, ‘It’s interesting that people are rejecting that—they obviously want a toilet per household.’ He noted that the failure of the community-managed model is likely linked to the ‘growth of the informal settlements’. He noted here that it would be significant to have further research on ‘the performance’ of sanitation delivery ‘in other places.’ In Johannesburg, for example, the influx of ‘new people coming in’ has made it difficult to establish a community approach that is understood and acceptable. ‘Whose problem is it? Is it the people who live there? Today?’

¹³¹Book chapter title: Allocating power and functions in a federal design: the experience of South Africa, (in) *Federal Rivers: Water Management in Multi-Layered Political Systems*, Garrick et al (eds), Edward Elgar Publishing, Cheltenham, UK (2014).

Tomorrow? Or is it simply the problem of the municipality that somehow has to intervene?’

The 2003 *Strategic Framework for Water Services* stated that:

***Policies* establish the vision, overall goals and approach, *legislation* creates the enabling environment and *strategies* set out the detail of how the policies will be implemented in order to achieve the vision and goals. It is important that there be alignment between policies, legislation and strategies within the water services sector as well as... other sectors related to the water sector.**

In hindsight, has the national policymaker established the objectives and enabling environment that have eased municipal implementation of *Free Basic Sanitation* services in informal settlements? If so, how? If not, why?

‘I think it has. Free Basic Sanitation has some problems because the free element has still not been clearly resolved.’ For example, Muller noted that it still has to be established whether the FBW allowance includes the amount of water needed for waterborne FBS. ‘Can people be expected to use washing-up or bath-water to flush their toilets?’ Muller, moreover, said implementers ‘were not provided a detailed guideline.’ But ‘could it be expected to have covered’ everything—given the issues that have been raised? Muller noted that the need for janitorial services in informal settlements, for instance, could not have been anticipated. ‘But in general the framework has worked well.’

Conflicting rationales in sanitation policymaking

My research centres on the different roles and rationales in Cape Town's present sanitation debate for informal settlements. For example, I noted a number of conflicts between local officials, residents and social advocates that consequently affected the design and provision of janitorial services. Did DWAF similarly struggle with differences in perspective and approaches? If so, with whom? What was done to address the differences? Did the recourses ultimately resolve the conflicts?

- ‘DWAF didn’t have a particularly deep operational involvement in metro sanitation because what we were doing in terms of programming for implementation was largely rural and if it was urban it was the big infrastructure rather than the household infrastructure. There was always a tension in water supply to try to get communities to take management responsibilities partly because it caused conflicts in communities. But it’s not particularly relevant to sanitation.’
- ‘The only equivalent [in sanitation] that I can think of is the temporary transition settlements’ in places like Johannesburg. The settlements are like ‘stepping stones’ and the municipality provides chemical toilets. Muller noted that ‘the quality of and performance of those contracts are a source of contention because the service providers are not performing adequately and that’s perhaps the equivalent example to Cape Town.’

Experiences across the country have indicated major problems with delivering services holistically. This is, in part, due to institutional constraints: public institutions are severely fragmented. The departmental silos and interdepartmental conflicts have consequently resulted in the duplication of municipal functions and poor quality services on the ground. From your perspective, is it sensible to decentralise then re-

integrate services as national policies currently espouse, or to try a different approach altogether?

- Muller asked for further clarification, so I gave him an example of a CoCT service delivery conflict between the Department of Human Settlements and two units in Water and Sanitation. He remarked that, ‘There are always going to be administrative conflicts in any large organisation.’ He noted that ‘there is an old set of distinctions that if you provide a new housing project you are responsible for the internal infrastructure of that project because that is a way of achieving integration.’ He suggested the intervention of Executive Management to ‘avoid those kind of conflicts’ of ‘coordination between departments.’ But in the particular Hout Bay example presented, the conflict was intra-departmental, within the water department, because the local depot knew about the new development but had not advised the unit responsible for janitorial services that it would be required to act there. ‘What you’re talking about is interdepartmental conflict. Why don’t they talk to one another?’
- He, moreover, noted that sanitation has ‘complex functions’ in which you involve many stakeholders. ‘How do you coordinate them?’ He said that the municipality was better placed to operate as one entity.

Regulating informal settlement sanitation services

The SAHRC released several reports from 2010 to 2014 that condemned the City of Cape Town’s sanitation provision as being anti-progressive, 'racist' and 'inadequate.' What are your thoughts on the Chapter 9 institution's assessment?

- Muller said he did not read the specific reports, but has engaged with SAHRC at a ‘Board level’ in the past over previous reports. His assessment is that the ‘SAHRC is a very weak institution. It has a huge mandate and very limited resources. I know the resources they have and I’ve seen what they tried to do. It’s an impossible job with the resources they have but it imposes also on them the duty to be careful with what they say.’
- On their assessments: ‘It tends to be emotional rather than technical. I would say it doesn’t surprise me that they did not engage with technical issues because they appeared to rely on newspaper reports rather than their own analysis. So I wouldn’t take their comments too seriously. It’s a demonstration of weakness rather than competence. Part of it again is political economy.’

In the *CORE* piece, you stated that DWAF had initially envisioned that WSAs were to 'play the regulatory role' in water services in the 1997 *Water Services Act*. However, the 2003 *Strategic Framework for Water Services* also 'clearly calls for a national regulation strategy', with DWAF acting as the national regulator to ensure, inter alia, municipal compliance with minimum norms and standards. What had you envisioned as the differences between municipal and national regulatory functions?

- ‘The regulatory function of local municipalities was intended to focus on very detailed and specific performance issues, while the national function was to ensure that norms and standards were being achieved at a more general level.’
- Muller added that the Water Services Authority and Provider functions were ‘separated’ as ‘one of those generic provisions in case one day someone wanted to privatise or have services delivered by another institution. So we conceptually distinguished the institution that oversaw service delivery from the one that does provision.’ The Provider is ‘accountable’ to the Authority, ‘so that is a channel for regulation. The WSA has oversight of a utility whether it’s a private or public institution.’ He stated Johannesburg

is an example that shows that this is not a framework for privatisation but also an alternative public organisational arrangement that was 'enabled' by the *Water Services Act*. This was why he referred to the *Act* as being an 'enabling piece of legislation' because municipalities can decide how they achieve their mandates.

In the *CORE* piece, you stated that cooperative government in democratic South Africa means the 'power chain' of a government hierarchy (or 'tiers') has been replaced with 'spheres.' This means each level of government is 'equal to the other, with the right to make its own decisions in accordance with its constitutional mandate.' Does national government enforcing municipal compliance of nationally-set standards not contradict this understanding of cooperative government?

- 'It isn't contradictory because the responsibility of the national government is to establish norms and standards. That is very clear.' He elaborated that the 'Constitution says there are equal spheres and that local government should provide services; and national government dictate the norms and standards for those services.'

In the *CORE* piece, you stated that the 'rationalisation' of democratic South Africa's water services system 'will take decades to complete.' What more must be done to 'rationalise' South Africa's water sector? And who (or which government role players) should be responsible for these tasks?

- 'Municipalities are still not achieving sustainable water services, not operating up to standards and will have to do an awful lot to meet these standards. It's their primary responsibility. National government has to support and it's doing exactly that.'
- With regard to regulatory monitoring and enforcement, Muller remarked that 'there is a continued drive' to establish an independent regulator in South Africa's water sector. But he warned that 'this is a kind of intellectual hegemony' where many people read about and then support having an independent regulator 'but they do not think through why that should be, what the role of the independent regulator would be and what they would do differently from government.' He said that, 'you do need one if you aren't going to do the work yourself. It would be convenient for the national Department to have an independent regulator, arguably because it would absolve them from doing work. And the Washington Consensus wanted independent regulators so that service delivery could be privatised, but this is not particularly relevant for South Africa.'
- Instead, Muller suggested that, 'For local government, DWS would still need to support local government and should therefore, for the moment, continue to monitor them directly, which would enable them to regulate their activities as well as to mobilise appropriate support. This process had already been undertaken with Water Boards. DWAF used to convene the Boards once a year and was empowered to give directives, effectively to regulate their provision of water services.'

Future of sanitation policymaking

(1) What do you think are the sanitation sector's major policy, organisational and/or skills gaps? How do you think these gaps should be addressed? What are its key areas of opportunity for further development?

(2) How should public institutions adapt policy for changing circumstances?

- ‘Whether it’s benchmarking, monitoring, or reporting, the support function is arguably the weakest. There’s a lot of skills gaps—particularly in sanitation, which is a complicated sector. It’s not just technical. There also are not many people who can engage with the policy issues at both macro- and micro-levels. But the main challenge in South Africa is to decide what you want to do and get out and do it properly... That requires a certain degree of capacity in municipalities and the general question of municipal capacity is a problem. This means that there will still be a need for operational support from national level.’
- ‘Effectively managed institutions should implicitly or explicitly monitor their performance... If you’re not doing that then you’re not managing well.’
- Muller noted that ‘the only difference between management in a public and private institution is that a public institution has to deal with a larger group of stakeholders with a more diverse set of objectives.’ Put simply, it’s the ‘politics’ of public administrations. There’s a ‘different set of dynamics which complicates things for changing circumstances.’ In order to adapt policy for these changes, Muller stressed the need to incorporate interest groups in servicing sanitation projects: ‘It is interesting how the past year or two political economy analysis has suddenly become a buzzword. But to understand why your projects aren’t working is very self-evident. It was an unsanctioned discourse. You were not allowed to talk about these interest groups. Rather you simply say that they’re vandals. My favourite example is from Naivasha in Kenya, where a NGO ran a steel pipe for a rural town’s water supply. Within six months all the pipes had been chopped up. It turns out that the vendors that had supplied that community with water were unhappy about losing business, and they used the pipes to make carts to carry drums of water.’ Muller noted that this example showed the need to consider the various stakeholders that might be affected by service projects. In this instance, the NGO’s piped water supply threatened the livelihood of local water vendors, and they hence removed that threat and were called vandals by the NGO. ‘You thought you did something that was really clever and you expect people to just leave you to it. I think the perspectives of the interest groups tend to get lost.’
- Commenting on the CoCT’s political situation, Muller stated that ‘Cape Town is arguably one of the best performing municipalities in South Africa’ and ‘I think Cape Town sanitation debate is not primarily about sanitation.’ He noted as an example, the municipality’s struggle with the ANC-DA rivalry. Commenting on the ANC’s tactics, ‘If they are doing something well then you still need to dispute it—otherwise you can’t make your political point.’ Muller said that the ANC now has strong local support in pockets of the city, but the party ‘was not going to get broader support’ and will likely lose local support, too, over time because they can’t support the opposing party’s initiatives. ‘It’s kind of sad. It’s real politics. We shouldn’t expect South Africa to be exempt. In the USA, there were traffic jams when the Governor [of New Jersey] wanted to embarrass his political opposition by closing an important bridge during rush hour.’ We spoke briefly about the 2013 Fort Lee lane closure political scandal. ‘I think the Naivasha and Governor Christie examples show how interest groups and politicians can really screw the public if they think it’s to their advantage.’
- In closing, Muller emphatically stated that, ‘Sanitation is not simply a technical problem; it’s a social problem with emotional overtones. It actually talks to political economy. How do you manage between poor residents, black political leaders and old white managers? You better get all those groups in—otherwise it won’t work.’

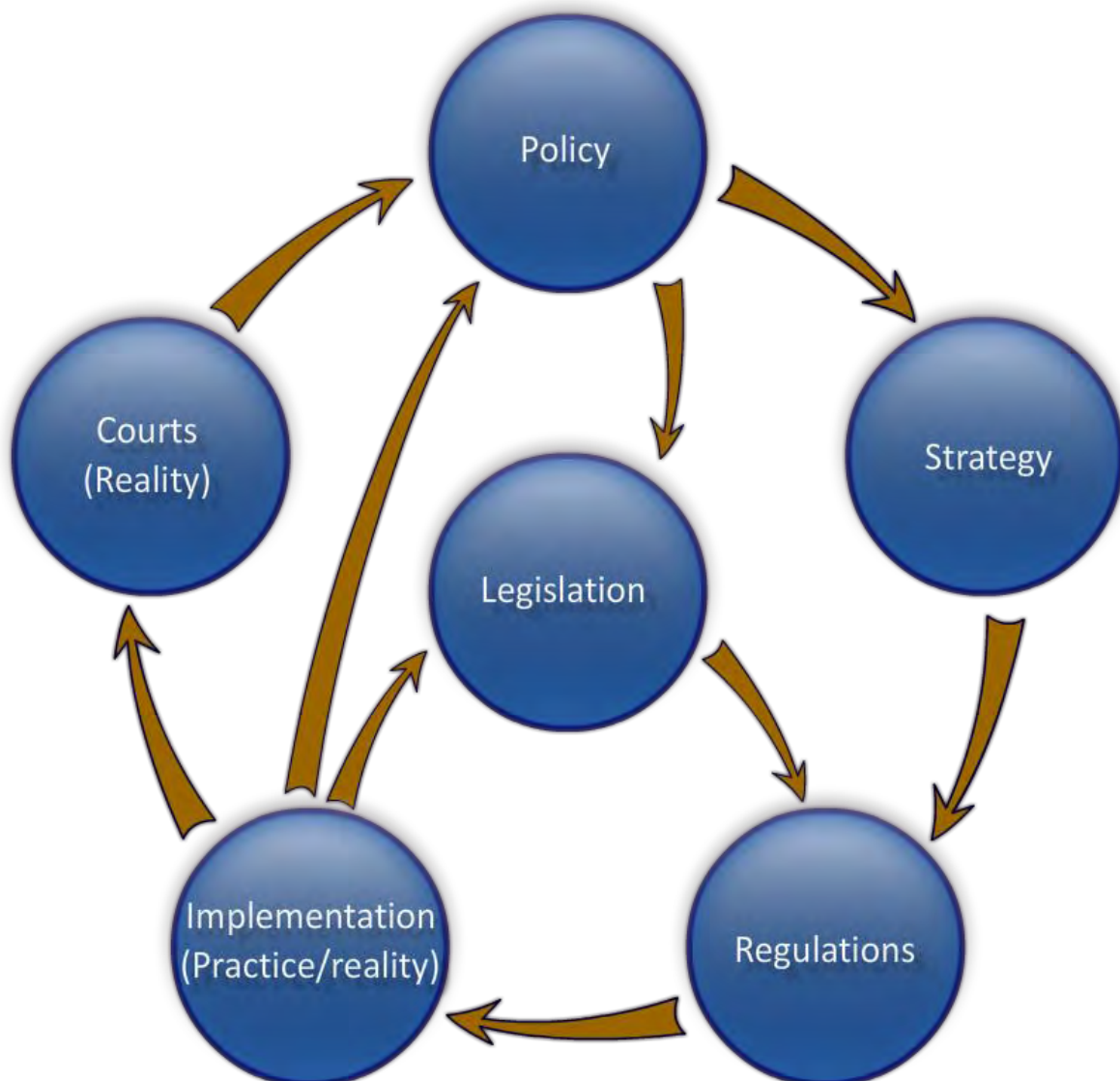
Appendix C: Interview with Helgard Muller

On 22 April 2015, I interviewed Helgard Muller to discuss his experiences with DWAF, and his recommendations for present policymakers in the sanitation sector. Mr Muller was the Chief Director of DWAF's Water Services during the formulation of the *Free Basic Water and Sanitation*. He retired from DWAF two years ago and presently works as a Specialist Consultant in the water sector. What follows are the questions I asked Mr Muller and his responses. Mr Muller and I have condensed and edited the exchange for clarity.

Background information

Please explain the policymaking process for DWAF, and your previous and current role in policymaking.

- Muller asked for paper and drew the following diagram of the policy process:



- He explained that generally:
 1. DWAF prepared a draft *White Paper*.
 2. DWAF submitted a draft *White Paper* to the Cabinet for approval (formalisation) and it would be a *White Paper* once published.
 3. If the policy proposals in the *White Paper* are to be legislated as an *Act*, then they will need to pass through the parliamentary process—we have policy embedded in legislation.
 4. A *Strategy* is drafted as an implementation plan for proposals from the *White Paper* and now enforceable in terms of *Legislation*. DWAF drafted *Regulations* following the approval of a *Strategy* or *Legislation*.
 5. Municipalities implemented the *Strategy* or *Legislation*. Muller characterised the implementation stage as policymaking in ‘practice’ or ‘reality.’
 6. If contested, implementation of the *Strategy* or *Legislation* can be challenged in courts.
 7. Ultimately, practical experience from implementation should inform the reformulation of policies or laws.
- He asked, ‘Have you got that article I wrote for World Water Week?’¹³² I will send you that article. I actually did a presentation in Stockholm in 2013 and they asked me to do an article about policymaking so I traced the whole thing from pre-1994, the RDP... It follows it in a logical sequence.’
- ‘How did we get involved? On the one hand, you can have policy sitting in an office apart from the realities. What was good in the department in those days was that we were quite well in contact with reality, with practice... We tried to make the policy practical.’
- When discussing Muller’s present activities as an independent consult in the international water sector, I commented that he is not involved with present policymaking at DWS. He replied that the government does not really utilise its former officials—not even as mentors for younger staff.

How has your professional training and experiences affected your contributions to national sanitation policies?

- ‘I used to be in direct implementation of projects in a rural area. I also had exposure in water resource management. These experiences exposed me to on-the-ground issues—the real practical issues. What I see these days is that policymakers know the buzzwords, but they don’t know the practice. People like Mike [Muller], Piers [Cross] and Barry [Jackson], they worked on-the-ground before getting involved in policies. They know the practical realities.’

Informal settlement policymaking

I noticed in my literature review that international experience largely informed the principles underlying the state's policy positions. Why have policymakers looked towards international practice for direction when formulating policy?

- ‘I think maybe at that stage we said maybe we should learn from international experience and see what they say. Maybe it also is because there was not much available locally in those days. Now the WRC, for example, is doing a lot of research now on water and

¹³² Muller H (2014) The South African Experience on Legal, Institutional and Operational Aspects of the Rights to Water and Sanitation. *Aquatic Procedia*, Stockholm International Water Institute, 2, 35–41, Available from: <http://linkinghub.elsevier.com/retrieve/pii/S2214241X14000078>.

sanitation. But I think what we managed was a tailor-made policy for South Africa. They're not just adapted.'

Did DWAF collaborate with its Housing/Human Settlements counterpart to devise sanitation policy and standards for informal settlements? If so, what was done? If not, why not?

- 'Not really! The reason I say so is because sanitation, the way I understand it, is much more than providing a toilet at a new house. The Department of Housing was just building new houses with toilets. Their angle of sanitation was that it was just a new toilet. So they built new houses and new toilets but they weren't doing the broader aspects—like health and hygiene, environmental stuff. And how much could they cover by building just a couple of new houses? I wonder if they did any health and hygiene when they implemented toilets.'
- 'There was a lot of focus on rural areas—especially on the ex-homelands—and not enough on informal settlements. We overlooked informal settlements. I think it comes from the political side but urbanisation is here, so let's focus on it. But there's too little focus on urban areas or cities. The balance is not right.' When I inquired why there is an imbalance, Muller recalled a previous exchange with a former Minister of DWAF: 'I remember very well a debate with Minister X... We were looking at adapting policy to address reality, and suggested having different standards for rural and urban areas. For example, we said we couldn't expect to bring water to all people in rural areas when households are 2-3 kilometres apart. So can we create different standards for sparsely settled areas? The Minister said that from a practical and economic perspective, I fully support you. But from a political perspective I can't, because I can't treat rural and urban areas differently.' Muller elaborated that if she focused on urban standards then there might be complaints about her neglecting rural areas, so DWAF, too, had to keep the same standards for rural and urban regions. He noted that having general standards, however, was 'unpractical'. He concluded that politics restricted the 'kind of issues we needed to address', because it stifled DWAF when 'looking into future tough decisions' that they could not 'tackle head on'. He added that, 'we can't just talk about certain things and brush over informal settlements. Difficult decisions must be made.'

How did DWAF adapt policy for changing circumstances?

- 'We tried to keep close contact with sector players. We had, for example, a City Managers' forum where all the City Managers would meet every second month. And then we discussed practical issues. We picked up the real issues. Also, places like eThekweni Metro, they were quite innovative so we worked with those people, and we saw what we could make accommodations in our policies.'
- Muller noted that in policymaking, it's important that 'you keep track of changing circumstances... It's important you pay attention to the reality and practice in implementation and court rulings. You must keep in touch.'

The 2003 *Strategic Framework for Water Services* stated that:

***Policies* establish the vision, overall goals and approach, *legislation* creates the enabling environment and *strategies* set out the detail of how the policies will be implemented in order to achieve the vision and goals. It is important that there be alignment between policies, legislation and strategies within the water services sector as well as... other sectors related to the water sector.**

In hindsight, has the national policymaker established the objectives and enabling environment that have eased municipal implementation of sanitation services in informal settlements? If so, how? If not, why?

- ‘It’s a difficult one this one Lina. I would say that what we tried to do, there was pressure from many sides... Some implementers wanted us to go down to specifications with sizes, etc. but our philosophy was that we should keep our policies flexible, to allow the right outcomes without stifling flexibility required in local circumstances. I would say that we established the frameworks—such as you must set the objectives like a toilet that complies with hygienic, dignified needs. But we didn’t spell out that it must, for example, be this type of concrete.’

Implementing Free Basic Sanitation

Has the implementation of Free Basic Sanitation followed the vision of national policymakers? If yes, in what ways? If not, why not?

- ‘I think what happened there was that it was never approved. Did you pick up that we developed a *FBS* policy but it never went through the approval process? It was never formally approved. It’s implemented and practised without a formal policy. And, again, there’s enough leeway in the policy and regulations to allow that.’ I said I had noticed that there were not specific documents that outlined the *FBW/FBS* policy, but that the 2001 *Regulations* stipulated a free basic allowance. So I asked him why the policy was not approved. Helgard replied that DWAF had prepared a policy document and ‘it was supposed to be approved by Cabinet. But we never got it. The leaders at that time, they lost their appetite and seemed to not be interested. There’s a lot of momentum lost.’
- ‘We did a study in the department, asking what are the benefits of proper water supplies. I strongly believe we should provide basic services at a level higher than basic or “survival level”. But it often doesn’t happen that sound studies are captured in legislation’.

The City of Cape Town presently provides free water and sanitation to all residents in its jurisdiction. Officials have explained that it is difficult to only administer the social package to indigent households, so they provide 100% coverage to ensure that they meet their Free Basic Water/Sanitation obligations. What are your thoughts on this?

- ‘The problem is if you want to give to the poor then you have to have a list of poor people. The cost and the complexity to compile an indigent list are tremendous. Problems like: today I am without job, tomorrow I have one... That’s hard to update. We know the problem with administration. It’s also open to corruption, like some councillors or municipal officials say they want to be on the list, so they force themselves on the list.’
- Muller added that, ‘in essence, it looks like free to all’, but people are paying for their water ‘when you use more than six kilolitres.’ I clarified is it not ‘if’ households use more than six kilolitres. He then revised his previously statement, and said that ‘it’s not really free for higher volumes because they pay for it *if* they use more’ than the subsidised basic allocation.
- In hindsight, Muller said it was ‘very difficult’, because ‘how do you cover all the poor people?’ He recalled, ‘There was one meeting—have you come across, Jackie Dugard? In one of the meetings with Johannesburg, Dugard had the official city list of indigent people of say 50,000. Based on her estimate the number should be 10 times that. But the officials did not want to add to their list. So more people don’t benefit from FBW. But

they were also against that because the indigent register is flawed... People also don't want to be put on the list because they are afraid they can't get loans.'

Conflicting rationales in sanitation policymaking

My research centres on the different roles and rationales in Cape Town's present sanitation debate for informal settlements. For example, I noted a number of conflicts between local officials, residents and social advocates that consequently affected the design and provision of janitorial services. Did DWAF similarly struggle with differences in perspective and approaches? If so, with whom? What was done to address the differences? Did the recourses ultimately resolve the conflict?

- 'It's very real what you're saying, you may have the... let me categorise it. You would have the person on the ground (the local household)—they want the best services at the least cost, they have expectations. Then you have the municipal official with their objective but it must be real, it must be practical, it must be sustainable, it must be affordable, they must be able to pay for it. And then you get this other group of people—they're kind of activists or social advocates. They have grand ideas and intentions, but they're often not very practical. So you have to bring these three groupings together and it was the practice applied in DWAF.'
- What DWAF did was arrange 'water forums or something like that where we met with NGOs, we met with municipal officials and tried to sort out these differences. There was also a project that we did working with people in communities through a facilitator between municipal officials and communities. The problem sometimes was where you get a Councillor trying to make political gains and making promises he can't keep... So you need an honest broker between municipalities and communities. We funded some NGOs and it worked well. People in the community can also bring honest brokerage. But in the end you have to engage in these groupings. The people need to understand each other viewpoints because all of these groupings have a point, but maybe without consideration of the other. How we resolved conflicts was having forums and discussing it... We also funded liaison groups that facilitated.'

Experiences across the country have indicated major problems with delivering services holistically. This is, in part, due to institutional constraints: public institutions are severely fragmented. The departmental silos and interdepartmental conflicts have consequently resulted in the duplication of municipal functions and poor quality services on the ground. From your perspective, is it sensible to decentralise then re-integrate services as national policies currently espouse, or to try a different approach altogether?

- Muller noted that he 'didn't fully understand this question', so I offered an example of how municipal Housing Departments sometimes do not coordinate with their counterparts in Water and Sanitation. In response, he said, 'I know of new housing projects implemented without any water supply or toilets. I haven't got a solution for the silos. It's a reality. The one thing I can point out to you is what the government in Brazil is doing. In Brazil, they created a Department of Cities, which is supposed to look at the joint functioning of all municipal services such as roads, electricity, water, etc. It's a federal department.'
- Muller said that, 'Coordination is important. I don't know whether it's egos. We should say that housing should not be implemented without adequate water and sanitation.' He

brought up an example where a municipality did not build any new housing because there was an insufficient water supply in the region.

Regulating informal settlement sanitation services

You previously noted that cooperative government in democratic South Africa means the 'power chain' of a government hierarchy (or 'tiers') has been replaced with 'spheres.' This means each level of government is 'equal to the other, with the right to make its own decisions in accordance with its constitutional mandate.' Does national government enforcing municipal compliance to nationally-set standards not contradict this understanding of cooperative government?

- 'I speak under correction but I think there's an article in the *Constitution* that it is the function of national government to lay down national norms and standards, so based on that the national government can set standards. We had legal opinions on this as well, saying that if a municipality does not comply with regulations the only condition is that you must first pursue other options like intergovernmental relations and talk to them in a nice way. And if they don't listen you can take them to court.' I commented that taking another sphere of government to court would not likely happen. Muller, however, said that DWAF 'took municipalities to court for pollution'.
- 'You'll pick it up that the *Constitution* is not ideal in that sense because I think it assumed that each one of the spheres would act responsibly in a well-mannered way, which hasn't happened in reality.'

The SAHRC released several reports from 2010 to 2014 that condemned the City of Cape Town's sanitation provision as being anti-progressive, 'racist' and 'inadequate.' What are your thoughts on the Chapter 9 institution's assessment?

- 'I don't know those reports so my response is a general response, having seen previous reports from when I was in DWAF. In my days SAHRC would do an annual water and sanitation report and they would appoint a relatively junior person without any knowledge of water and sanitation to do it. It was pathetic. It was half-baked. You find the people who are doing these reports jumping to conclusions... They almost worked towards their ideas. We as a Department had to engage with them and help them with the report.'
- So, in general, he questioned 'the credibility and accuracy of those reports.' He said it is important when producing such reports that the investigator 'be objective and balanced.'

You noted a decade ago that the 'rationalisation' of democratic South Africa's water services system 'will take decades to complete.' What more must be done to 'rationalise' South Africa's water sector? And who (or which government role players) should be responsible for these tasks?

- 'I've got a very simple answer. And I think it's maybe cynical, may be my personal viewpoint, but I think there's too much politics involved... You know the Minister sent me once as part of a delegation to Cape Town, and we approached a group of people who were complaining about their water being cut off. But they have smart meters. So a municipal official sat down with his laptop and connected to a smart meter to show there was always water. It was a blatant lie but the group was trying to make a point: political mileage. At a local level we should just look at the interest of the community, what we can afford... There's far too much politics involved. There shouldn't be. It's basic sewers, not rocket science.'

- ‘The other one is maybe... we talk too much about the rights to water and sanitation. But what about the obligations of the public to pay for services? And look after services and not vandalise them? To me, we would not rationalise services if we don’t also take that into account. I see the balance shifting, if you have ten people you can subsidise one. People paying for taxes cannot continuously sponsor free services.’
- ‘My question is that when it comes to communities must organise, must we [as in the state] do this? I’ve been to Lusaka where communities do a lot of sanitation functions themselves and it seems to work there. But you need the help of a bigger authority’ to facilitate. Reflecting on South Africa’s situation, he noted that ‘in a rural area, there’s a strong tribal affiliation, which you don’t find in urban settings. It’s a very difficult one.’

Future of sanitation policymaking

What are key areas of opportunity to capitalise on for further development?

- ‘Have you spoken to people in eThekweni?’ I explained several eThekweni officials were a part of my WRC Reference Groups. ‘I think there are a lot of innovations in places like eThekweni. I like how they work with the University of Kwa-Zulu Natal. They work with that university. Neil MacLeod once said that it’s funny that they have people all over the world who want to learn from him, but South African municipalities don’t want to learn. We should be willing to learn these best practices from each other.’
- Muller added that, ‘There are a lot of these like yours but there’s too little action to bring research into the reality of practice, to make people aware and to apply it. The research and results are there but why is it not being applied? I think those are gaps. To take research, to take innovations, to let municipalities apply it. For me, the whole issue is those components need to actually talk to each other. Because, in the end, if we want to move to a solution, we must move from our own standpoint and move to a mutual ground where we agree. And it seems some people don’t want to move.’

What do you think are the sanitation sector’s major policy, organisational and/or skills gaps? How do you think these gaps should be addressed?

- Muller noted that:
 - 1) ‘National officials should move closer to the reality on-the-ground. Many of them did not previously work in municipalities. Now people are “parachuted” in offices and they don’t have the implementation background.’
 - 2) He also noted that policymakers should ‘take note of international events. You are aware of... Catarina de Albuquerque’s handbook? I wonder how many people have applied that handbook. Are people aware and take note?’
 - 3) The significance of ‘global monitoring. Now as part of my consulting work I work with WHO in global monitoring with the new post-2015 SDGs. The SDGs look at a lot more issues than the MDGs. For example, sanitation will have an on-site sanitation focus.’ He also indicated that there are ‘new indicators about safety’, etc. He noted that South African statistics will ‘appear in those global reports’, which officials should be mindful of.
 - 4) Concerning advocacy, ‘social activists it’s good they are there because it’s important to bring in the social voice. But those people must get organised and they must get real. Often they have rhetoric and they are not close to reality.’ (Reality, in this sense, was related to implementable goals or activities.)
 - 5) With regard to the ‘politicians, they must reduce the political ideology and also become real if that’s possible.’

- Muller and I continued to chat after we completed the questionnaire. Through the conversation Muller added that, 'There is not enough importance on policymaking' in the water sector.

Appendix D: Interview with DWS officials

On 22 April 2015, I interviewed two Department of Water and Sanitation (DWS) officials to discuss their experiences with sanitation policymaking in South Africa. What follows are the questions I asked and the responses from: (a) Mr Bekubuhle Mbentse (BM), a Deputy Director: Strategic Assessment in the Water Services Directorate; and (b) Ms Lusanda Mfenqa (LM), a Deputy Director: Implementation Support within National Sanitation Services. To note, Mr Mbentse, Ms Mfenqa and I have condensed and edited the exchange for clarity.

Background information

Please explain DWS' policymaking process, and your previous and current roles in policymaking.

- BM: 'Previously we used to have a Water Services Policy and Strategy Unit, which only addressed water and sanitation issues. Now there's a Chief Directorate called Policy and Strategy, which incorporates both water resources and water services functions. So there was an amalgamation of the two functions two years ago. What we normally do is to develop policies, develop legislation, develop norms and standards for all levels of water services in terms of water resource protection, in terms of services, and in terms of sanitation issues as well. We develop policies as per the Minister's request, or from the sector needs at the time.'
- LM explained the process by using her present task as an example. 'Firstly, the policy gaps are identified or a need from the sector where a current policy does not address certain areas. This situation calls for a review of current policy. For example, the 2001 *White paper on Household Sanitation* mainly focuses on household sanitation. The Department decided to review the 2001 *White Paper*—with an emphasis on including institutional sanitation as well as considering the provision of sanitation services holistically (from collection of faecal material, treatment until the final disposal). A concept paper was prepared assessing all the gaps in existing sanitation policies and the recommendation favoured the review of 2001 *White Paper in Household Sanitation*. There was extensive consultation of stakeholders at provincial and national level. This resulted in the development of the 2012 *Draft National Sanitation Policy*.'
- LM: 'I joined National Sanitation Services in 2013 when the sanitation function was with the Department of Human Settlement and the policy was at a draft stage. The policy review process started in 2008 in the Department of Water Affairs. My role in policy development is to provide technical support and input on the content. The Directorate: Water Services Policy and Strategy drives the entire policy development process.'
- BM confirmed that, 'Lusanda is in the Sanitation Programme, who provides the technical parts of policy and provides support in the implementation of policy.' He then elaborated on his role in developing policy:
 1. They start with drafting a concept paper. 'If I see in the policy what is coming up is technical, I take it to the Chapter Champions. She leads that in the sanitation programme. I facilitate the discussions but she leads the technical aspect. My side is

the analysis part: what is this person saying, what does this really mean, and how should it be reflected in policy?’

2. ‘After we have a concept paper, we develop a draft document that we take to the regional offices to get comments. We have nine regional offices. That’s where we are developing this draft, the *National Sanitation Policy*. We engage to get a feel of the stakeholders in the provinces. Regional stakeholders include municipalities, other government departments, NGOs, and the private sector for that particular province. There is a register where people can raise issues and note their comments. And we respond. That’s how we address their issues in the policy at a regional level.’
 3. ‘The policy is then taken up to a national level where we get consultation with national stakeholders. We workshop issues again with national stakeholders, register the comments, and respond and publish those comments. Then we update the document... to cover all of those issues.’
 4. ‘After we’ve done that... look at the implications and the applicability of the currently proposed policy and legislation. The State Law Advisors provide their comments.’
 5. Then ‘it goes to Parliament... While it goes to Parliament it goes through the National Council of Provinces (NCOP) as well’, by getting ‘public comments for 60 days’.
 6. After it is ‘scrutinised, it goes to Cabinet for approval.’
 7. When ‘it gets approved by the Cabinet, then it comes back to us and we do the advocacy of the policy. We also fast-track implementation of the policy.’
- LM added that, ‘Policy must be in place first, and then legislation which is informed by the policy becomes law. If a person does not adhere to the provisions in the Act/legislation then there are the consequences with not complying. That’s what’s used in law enforcement.’
 - BM: ‘In fact, policies are aspirations. Policy principles for example, they are approved by Cabinet for implementation... Before it is implemented, it should be found in legislation. Then it is administratively implementable.’
 - LM agreed, and said it is ‘difficult to enforce’ a policy if it is not a part of legislation. ‘A policy guides and ensures uniformity in the provision of sanitation services nationally.’
 - BM added that policy essentially ‘influences the legislation. Legislation is a legitimate document for implementation.’
 - BM noted that municipalities, ‘They’ll say whatever they are doing administratively must be in their by-laws. So if they implement without bylaws they are administratively wrong. You can’t implement what is not in the by-laws.’ Using the Mazibuko case as an example, BM said that ‘people were saying the installation of pre-paid meters was not reflected in the by-laws. They didn’t want the installation so they challenged the legality of the administration because it was not covered in the by-laws.’

What is your professional training and background?

- BM: ‘I have a Masters in Policy Development, and I have a BSc degree in Hydrological Science. I also worked as a Groundwater Specialist in the KZN regional office before working for DWS. It’s my 11th year here’.
- LM: ‘I hold a BTech degree in Environmental Health and BSc Honours degree in Environmental Management, and I’m working towards a Master’s degree in Environmental Management with the University of the Free State, I started working with the Department of Water Affairs in 2006 as a Water Pollution Control Officer in PE.’

Current policies and basic sanitation standards

There were a lot of water and sanitation policies that were formulated by DWAF from 1994 to 2009, and DWA/DHS/DWS from 2010 to 2014. What are the current policies that dictate the sanitation sector?

- BM: ‘On Water and Sanitation policies, the 2001 *Basic Household Sanitation* policy is the only policy we had, and the 2003 *Strategic Framework* superseded it. The *Strategic Framework* was supposed to be a new policy, but when the arrangements were taking place it was changed to into a strategy. It has policy aspects to it and went to Cabinet for approval.’
- LM: ‘Currently the approved policy document guiding the sector is the 2001 *White Paper on Basic Household Sanitation* policy and the 2003 *Water Services Strategic Framework*. There were delays with getting the 2012 *Draft National Sanitation Policy* approved because the sanitation function was transferred from DWA to DHS, and now to a new Department of Water and Sanitation’.

Why is there a separate definition for a basic sanitation facility and service?

- BM: ‘So why do we differentiate? Facility is the structure... and a service is the facility and health and hygiene and operations and maintenance.’
- LM: ‘Remember the policy says that the intention of government is to ensure everyone has access to basic sanitation services. Therefore the definition of a basic sanitation facility clarifies what a basic facility entails, to prevent unrealistic expectations. A sanitation ladder needs to be considered.’
- I noted that the various state policies do not explicitly outline a sanitation service ladder.
- BM: ‘We are coming with that—a sanitation ladder, with norms and standards.’
- LM: ‘The sanitation ladder has been there—with the communities contributing in kind towards a sanitation facility. Communities will select a sanitation option, which is affordable and easy to maintain. This is before free basic sanitation services.’
- BM then asked, ‘Do we have a legislated ladder?’ LM replied that not really, but she noted that the level of sanitation services in the 2003 *Strategic Framework for Water Services* ‘provides guidance.’
- BM explained that, ‘Our understanding is, municipalities must also take responsibility for pit emptying and the like, but there are some minor things where people must play their part’ in basic sanitation service arrangements. BM added that DWS is currently in the process of having ‘norms and standards approved for sanitation which will go over liability and technology.’ He explained that it’s being developed by both of their departments, and should be ‘approved for implementation this year’. Approval means that they will have authorisation to ‘develop’ the new norms and standards.

What criteria define: (a) 'progressive' improvements; (b) 'access'; and (c) dignity, in the sanitation sector?

- Progressive:
 - BM: ‘On my side, progressive improvement is the ladder.’
 - LM: ‘Some households have no sanitation infrastructure in place. So the provision of a basic sanitation facility can be seen as a progressive improvement. It’s improvement from nothing to something.’
- Access: LM said that access ‘means people have access to basic sanitation service in a particular community, which is safe, reliable and contain faeces.’
- Dignity:

- LM remarked that, ‘This is part of access as well. If you have access to a sanitation facility then the statistics will change to show the situation is improving.’ In terms of sanitation, LM said that, ‘I would look at whether we are containing faecal material to prevent the spread of disease. Containing is actually the technical part bottom structure of a toilet which in onsite sanitation include a concrete slab, and a collar of a foundation which seals the pit to avoid exposure of faecal material to the human and vectors which may spread pathogens.’ She said dignity have ‘nothing to do with health in terms of forming a barrier against diseases. ‘The top structure provides privacy and dignity.’
- BM noted that he agreed with LM’s understanding of dignity.

Informal settlement policymaking

I noticed in my literature review that international experience largely informed the principles underlying the state's policy positions. Why do policymakers look towards international practice for direction when formulating policy?

- BM: ‘We cannot just formulate policies based on our own legislation. We also respond to the MDGs and participate in... Agenda 21, which affect global water and sanitation issues. We cannot operate alone.’
- LM: ‘And we learn from international practice, and take what is suitable for our situation.’

Has DWS collaborated with its Human Settlements counterparts to devise sanitation policy and standards for informal settlements? If so, what was done? If not, why not?

- LM: ‘We are working on developing National Norms and Standards for all levels of Sanitation Services. All spheres of government at local, provincial and national level will be consulted.’
- BM: ‘We have, yes, in terms of policy because they are part of our stakeholders.’ BM pointed out the *Red Book*, as the sanitation chapter was ‘influenced by DWA policies’. He stated that this suggested that DWA and HS had ‘aligned’ their policies. He also noted that ‘there has been collaboration because the current draft [of policy] was developed when DWS was part of DHS.’
- BM said that a concept paper, which was initiated in 2008 by the National Sanitation Programme Unit in Water Affairs, was not produced overnight and that officials had continued working on it even after the unit was transferred to HS: ‘Unfortunately when the process was getting closer to finishing, the sanitation function was transferred from Water Affairs. So we had to look at it again with Human Settlements as the custodian that time around. Now it’s Water and Sanitation again so we have to fine-tune the roles and responsibilities to be a product of DWS.’

After years of dealing with broken-down infrastructure, the City of Cape Town, eThekweni and Overstrand Municipalities have each independently established janitorial programmes for communal waterborne facilities in informal settlements. My research indicated that this mainly occurred because residents have largely refused to take the on-site O&M responsibilities of free basic sanitation services. What are your thoughts concerning the role and responsibilities of beneficiaries of *Free Basic Services* in informal settlements?

- LM: In general, LM seemed to support the establishment of janitorial services, as she noted that, ‘It’s job creation.’ But LM noted that municipalities have had issues with

labour laws—especially ‘problems with employing people permanently’. She said ‘communal facilities are working perfectly in eThekweni Municipality. Most of the municipalities are looking into that because it is difficult to provide services in informal settlements because of lack of space and the technical challenges of providing services in densely populated areas. But DWS is working with them to find a solution... of appropriate technologies that would best suit informal settlements.’ She noted that there is a Sanitation Innovative Challenge Project—which is funded by the DWS, managed by the Water Research Commission, and supported by the Department of Science and Technology and CSIR—that is looking into appropriate technologies. I asked if Jay Bhagwan headed it, and she said, ‘Yes, the programme is implemented in phases.’

- BM noted that Section 11 of the *Water Services Act*, which ‘says that the Water Services Authority has a responsibility to residents in its area of jurisdiction. That includes people in informal settlements.’ He noted that municipalities should then ‘do the service part and the infrastructure development part’.

Implementing Free Basic Sanitation

A 2013 Government Gazette (entitled *National Water Policy Review: Water Policy Positions*) noted that,

...based on several years of implementation of policy, a number of challenges and unintended interpretations have been identified that require a policy review, and consequent legislative amendment.

While the document covers *Free Basic Water* concerns, it was noted that *Free Basic Sanitation* still required 'further review'. What has since been identified as the challenges and unintended interpretations of policy that have affected the implementation of *Free Basic Sanitation*?

- LM: ‘I’d say funding to provide for FBS.’ She used O&M as an example, and how the national government is trying to address lack of sufficient funding. ‘In terms of implementing it, there are not enough funds. It’s a challenge for municipalities to implement it as it is. And to identify those on the indigent register... Now we have blanket coverage, so it becomes free for everyone... This blanket approach in terms of provision of sanitation services and problems with O&M for the indigent services—that is where we are not winning... Remember with Equitable Share they also say indigents have O&M allocations but there is still a challenge of full pits on on-site sanitation, which needs to be emptied. Water is a priority but the problems in sanitation are piling up. So you still have municipalities that do not have the money to empty full pits. It needs to be looked at to be more precise to adequately support O&M needs.’
- BM said that there seems to be a problem with ‘one of the policy principles’ related to free basic water allocations for waterborne services. He said presently the 25 litres per person per day excludes water needed for flush facilities. So he said that there likely would be some incremental *FBW* changes to account for *FBS* needs.
- LM added that the 2008 *Free Basic Sanitation Implementation Strategy* suggests 50 litres per person per day. BM noted that it is ‘currently not part of DWS’ Norms and Standards’.

The City of Cape Town presently provides free water and sanitation services to all residents in its jurisdiction. Officials have explained that it is difficult to only administer the social package to indigent households, so they provide 100% coverage to ensure that

they meet their *Free Basic Water/Sanitation* obligations. Do other municipalities struggle with similar administration problems? If so, what has the national government done to try to address this problem?

- LM: ‘Not everyone qualifies but it’s difficult to control that. We provide free basic sanitation to everyone. For example, teachers, police, nurses etc.’
- BM: ‘We have reiterated in the current policy positions that have been approved by Cabinet to say that FBS are for indigents... As regulators, we have responsibility to manage water demand and conservation.’ He noted that Equitable Share ‘is supposed to be allocated to the municipalities’, and that ‘it gets allocated on the availability of the indigent register. How do you manage that? To make sure that it’s done accordance with the policy? We do not have to be over-prescriptive. The municipalities themselves should be innovative and strategise to figure out how they are going to do this... in their policies. We have an indigent policy, an indigent register and Equitable Share to address’ FBW/FBS.
- LM responded that, ‘In terms of FBS, all these guidelines are there but it is still not fully implemented in accordance with the policy principles.’
- BM: ‘I’m disagreeing with you guys... eThekweni use GIS to segment settlement types for rich and poor areas. So you can formally identify via GIS who can afford and who cannot afford to pay for services’. I noted this would be possible, so long as the data is available. BM added that the Municipality must also be willing to do it.
- BM: ‘This is an issue of the poverty line. We do not have a national poverty line so municipalities data-mine themselves... Maybe if we have a national poverty line that says a person earning less than R1500 or R2000 a month should get free services then it’ll be easier. Instead we’re leaving it to municipalities [to decide]. It’s very interesting.’
- LM, however, questioned whether *Free Basic Services* should be based on earnings. She used as an example someone who has a lot of livestock and other assets but might not be employed in a rural community and the house is not good in terms of social standards. So she asked, ‘Do you say this person is poor? Based on what if they are not registered as an indigent?’

Transformation challenges

I noted in my Cape Town case study that government officials struggle with ‘restructuring fatigue’. I understand that DWS, too, has undergone a number of institutional and structural transformations recently. Can you please describe the various events, and how they have affected DWS?

- BM: ‘The sanitation unit has been moved to Human Settlement and back. This has had a huge impact for policy alignment; we have had to try to address issues for one water and sanitation policy; one norms and standards for sanitation... so now the structure of the department automatically changes.’
- LM: ‘Water Services has been far ahead but now there are certain delays in the water side’s programme because they are now trying to accommodate the sanitation function with the new Department of Water and Sanitation’.

Conflicting rationales in sanitation policymaking

My research centres on the different roles and rationales in Cape Town's present sanitation debate for informal settlements. For example, I noted a number of conflicts between local officials, residents and social advocates that consequently affected the

design and provision of janitorial services. Has DWS similarly struggled with differences in perspective and approaches? If so, with whom? What was done to address the differences? Did the recourses ultimately resolve the conflict?

- BM: ‘We certainly have such differences when dealing with the issues in court cases. In some instances we have... the residents wanting to take over the municipal functions by trying to apply the concept of Water Services Committees to collect water levies. So we have this clash in powers and function between the Water Services Committees and the local municipalities. In our current capacity we are trying to resolve the Chapter 7 issue of Water Services Committees in the *Water Services Act*.’ BM explained that Chapter 7 was written at a time when municipalities were not yet established; so state policymakers and legislators included the provisions on Water Services Committees essentially as an alternative means of supporting service delivery until local governments could undertake the responsibilities. ‘But people are using Chapter 7 to get power for water provision in their localities.’ BM explained they are in the process of ‘removing Chapter 7’ as an *Amendment* because ‘municipalities are the ones that are supposed to be managing the domestic Water and Sanitation services in their areas of jurisdictions according to Section 11 of the 1997 Water Services Act and Part 4B of the *Constitution*.’

My research has indicated that municipal implementers have had to adjust their participatory policies and practices, which generally were informed by national guidance, because the involved community representatives have largely rejected consensus building approaches through representative forums such as Ward Committees. What guidance would you offer a municipal implementer faced with this problem?

- BM: ‘The municipal implementer should take note that during their implementation process, they are not only guided by municipal laws but there are some other legislations related to them—like the *Public Administrative Justice Act*, which states ‘what is administratively just’ and ‘not discriminatory’, and the *Public Access to Information Act*, which says ‘people must get information about level of services to be provided to them.’
- LM: ‘Remember when you provide sanitation services, you are not going to solve all the community problems and community dynamics using sanitation policies. Like Beki has highlighted, other policies and legislations should play a role. In accordance with the *Constitution* it is the role of municipalities to provide water and sanitation services within their area of jurisdiction. Therefore municipalities implement sanitation programmes. National government creates enabling environment nationally through the development of National policies, Legislation, Norms and Standards as well as guidelines.’
- BM: ‘So your take home, municipalities—it’s their responsibility. In the municipal structure, in the organisation there are community development officers. Those community development officers need to address the conflict in sanitation and other related municipal services.’
- LM added, ‘Municipalities cannot implement sanitation in isolation to other services so there will always be challenges and problems that need local solutions and the participation of community development officers.’

How do you think municipal implementers from the City of Cape Town should collaborate with whistleblowing activists, in light of their differences in rationale and the 'rife' political battle between the ANC and DA?

- LM noted, ‘I don’t see how sanitation policy would address political problems.’
- BM replied that, ‘We are not politicians. Ask the political head (The Minister).’

Regulating informal settlement sanitation services

Who regulates informal settlement services? How do they fulfil this function?

- BM: 'Municipalities prepare their own local regulations. But they do not only provide facilities; they need to do O&M. Our part as national government is to support them.'
- LM: 'The policy is for the entire country, for every settlement. Everyone must adhere to the policy and legislation.'

The SAHRC released several reports from 2010 to 2014 that condemned the City of Cape Town's sanitation provision as being anti-progressive, 'racist' and 'inadequate'.

What are your thoughts on the Chapter 9 institution's assessment?

- BM: 'They are a good association that promote transparency. They are good for refereeing... They are the watchdogs in service delivery on behalf of the government. You need the watchdog' in government.'
- LM: 'Chapter 9 institutions are independent and impartial. I would say they are doing what they are supposed to do. There are challenges in servicing informal settlements.' LM noted that when 'looking at the racial issue, the inadequacy of sanitation or being seen as anti-progressive', one does need to question, 'Who is staying in informal settlements? It's a black community and it's a fact.' But she noted that, 'In most cases the services are inadequate because there is not enough land to provide required infrastructure. The aspiration of sustainable sanitation solution is to relocate the residents to formalised areas where the space and spatial planning is available for services.' Currently the Department and other institution are working on finding sustainable sanitation solutions that are appropriate to service informal settlements.'

Future of sanitation policymaking

What do you envision as DWS' future role in the delivery of sanitation services?

- LM: 'To keep on striving for excellence in policy development and finding sustainable sanitation solutions for all. To be open to engagements with researchers like you. To build sanitation information and research reports.'
- BM: 'We want to improve the sector, to regulate both the basic provision and the entire value chain on sanitation. We want to lead the sector in terms of sanitation issues. We want to be a sector leader and we want to regulate the activities related to sanitation to ensure compliance and all those problems. Also, we want to know more about innovative technologies.'

Appendix E: Aide-memoire

I used an *aide-memoire* as a guide for the themes I explored in my research. It consists of a set of questions I was to address when conducting interviews. These questions, however, were not in the form of a standardised questionnaire or interview schedule because I needed a flexible research tool that complemented participant observation methods. I hence used an *aide-memoire* to standardise the data I gathered from individuals about informal settlement sanitation services. Below is a schedule of themes I sought to explore for the *Free Basic Sanitation* study (Taing et al., 2014), presented according to the groups of individuals I had interacted with.

1) *Sampled informal settlement residents in research sites*

- Personal demographic information
- Length of time as a resident in settlement
- Composition of present household, its size, and its social dynamics
- Housing experiences especially in relation to access to sanitation facilities
- Personal life histories including migration, household relationships and employment patterns
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations of basic sanitation service provision in and/or around own residential area
- Safety in relation to toilet use in and/or around own residential area
- Experiences and expectations of janitorial services in and/or around own residential area
- Toilet accessibility, particularly at night and alternative sanitation arrangements in and/or around own residential area

2) *Janitorial staff in research sites*

- Personal demographic information
- Place of residence – especially in relation to right to hold a janitor job
- Employment history
- Experience of obtaining and retaining janitorial job
- Extent and nature of janitorial service training
- Materials provided to permit provision of (or limiting capacity to provide) janitorial service
- Number of toilets/toilet blocks for which each individual janitor is responsible, and how time is used to ensure all are managed

- Relationship with other members of janitorial team – especially where shift work is the norm
- Other responsibilities relating to toilets
- Relationship with janitorial supervisors and managers
- Relationship with municipality – kind of contract and how it works
- Average monthly earnings as a janitor
- Relationships with toilet users
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision
- Safety of toilet users
- Own safety in relation to janitorial duties

3) *Janitorial supervisors/managers responsible for the research sites*

- Personal demographic information
- Place of residence – especially in relation to occupying management role
- Employment history
- Previous experience of sub contracting and of managing personnel
- Experience of obtaining (and retaining) the particular supervisory/management job/contract presently held
- Extent and nature of supervisory/management training
- Materials provided/made available to enable janitors to deliver adequate service
- Relationship with janitorial staff (employees if contractor; workers if municipal official)
- Relation to municipality – kind of contract and how it works
- Average monthly earnings from janitorial supervision/management role
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision
- Safety of toilet users
- Safety of janitorial staff for whom responsible/who are employed
- Own safety in relation to janitorial management duties

4) *Municipal officials responsible for toilet facilities in their respective municipalities*

- Personal demographic information
- Place of residence
- Employment history
- Extent of experience of participation in designing, implementing and managing sanitation services

- Roles and responsibilities in relation to janitorial services in informal settlements
- Relationship with janitorial staff and supervisors/managers
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision
- Understanding of municipal and/or national policy regarding basic toilet provision (including its relation to other sanitation and waste-water service provision)

5) *Civil society activists concerned with the provision of sanitation services in Western Cape informal settlements*

- Personal demographic information
- Place of residence
- History of civil society involvement – particularly sanitation related activism
- Experience of engagement with government policy: its critique and its creation
- Relationship with those on behalf of whom the activist believes s/he is acting
- Relationship with government (all levels) officials and representatives concerned with sanitation service provision
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision and how those relate to policy and practise

6) *Sanitation facilities in informal settlements*

- Location, type, and number of toilets
- State of such toilets
- Ratio of toilets to numbers of households and to population of settlement
- Materials utilised for cleaning and maintenance
- Materials provided to users
- Presence of washbasins/stand pipes
- Provision for gender separation
- Provision for solid waste disposal
- Hours of operation and accessibility
- Whether facility has on site or roving janitors
- Structure of shift work by janitors and their relationship (other than as co-workers) with one another, with local authorities and power holders
- Presence or not of local street committee (or equivalent) and its/their role vis a vis the facility.

Appendix F: Cell phone survey questionnaire

This is the DoForms questionnaire I used when interviewing BM residents. DoForms is a cell phone survey application. I prefaced my interviews with the following introduction. An individual survey generally took 45 minutes to complete.

Introductory text

My name is Lina Taing and I am a PhD Researcher from the University of Cape Town (UCT). I am looking for people to tell me about their sanitation experiences in BM Section. This is part of an independent study funded by the Water Research Commission. I intend to conduct research in BM until 31 August 2013. Please note that:

- Participation is voluntary: You have the right to not participate and answer questions.
- Compensation: There is no payment for participating. I will, however, take a picture of you, and will give you an 8x10" photograph to thank you for your participation.
- Research: Your responses will be used solely for education and research purposes.

I thank you in advance for your time and willingness to help.

Regards, Lina Taing / Cell: XXX XXX XXXX

Questions

1. Name
2. Please take the GIS coordinates of where the Resident lives
3. Cell phone number (Note to Resident: This will only be used if follow-up questions are necessary, and will not be shared with others)
4. Are you male or female? MALE/FEMALE
5. What is your year of birth?
6. Where were you born? (AUDIO)
7. Where was your home before you moved to BM, and how did you relieve yourself then? (For example, in a field, in what facilities, etc.) (AUDIO)
8. What year did you move to BM, and why did you move here? (AUDIO)
9. Who else lives in your house, and how are they related to you? (AUDIO)
10. What do you do to be able to buy things such as food? (AUDIO)
11. How far have you gone in school? (AUDIO)

The next questions focus on your experiences with sanitation, water and refuse services in BM Section.

12. Sanitation

- a. Where do you go to relieve yourself when you are at home in BM and when you are not home (e.g. school, work, etc.)? (AUDIO)
- b. Please take a picture of where you relieve yourself when at home.
- c. Do you pee or help yourself here? PEE ONLY/HELP YOURSELF ONLY/BOTH

- d. Please select if it is a (a) toilet, (b) bucket, (c) in an open place or field, or (d) other.
- i. If it is a toilet:
- 1) Who put the toilet there? (AUDIO)
 - 2) Do you share the toilet with people who do not live with you?
YES/NO
 - a. If YES:
 - i. How many other people do you share this toilet with?
 - ii. Can you lock it?
 1. Where did you get the lock?
 - a. Municipality
 - b. Contractor
 - c. Bought myself
 - d. Other– (NB: Add manual field to enter information)
 - iii. How many keys are there? (NB: Add manual field to enter information)
 - 3) Who cleans this toilet? (AUDIO)
 - 4) What is cleaned? (AUDIO)
 - 5) Are you happy with this arrangement? (AUDIO)
 - 6) Is there a problem with the toilet? YES/NO options
 - a. If YES:
 - i. What is the problem?
 1. Blocked toilet
 2. Unclean toilet
 3. Missing or broken toilet
 4. Missing or broken door
 5. Leaks
 6. Other – (NB: Add manual field to enter information)
 - ii. Have you reported the problem? YES/NO
 1. If YES, whom have you reported it to?
 - a. Community leader
 - b. Ward Councillor
 - c. Municipal janitor
 - d. Municipal official
 - e. Other – (NB: Add manual field to enter information)
 2. If NO, why have you not reported it? (AUDIO)
 - ii. If it is a bucket:
 - 1) Please take a picture of where you discard its contents.
 - 2) Please explain why you choose to discard here. (AUDIO)
 - iii. If it is in an open field or place, please explain why you relieve yourself here. (AUDIO)
 - iv. If it is other, please explain what you do to relieve yourself, and why you do this. (AUDIO)
- e. How many times a day do you pee or relieve yourself here?

- f. Do you pee or relieve yourself here during the:
 - i. Day only
 - ii. Night only
 - iii. Day and Night
- g. If you leave your home, do you feel safe relieving yourself here, or discarding your contents here? (AUDIO)
- h. What do you use to clean yourself?
 - i. Toilet paper
 - ii. Newspaper
 - iii. Cloth
 - iv. Other – (NB: Add manual field to enter information)
- i. Where do you clean your hands afterwards, and what do you use to clean them? (AUDIO)
- j. Do you also relieve yourself elsewhere when in BM? YES/NO
 - i. If YES, repeat 11c.

13. Water

- a. Please take a picture of where you get your water.
 - i. Do you share the tap? YES/NO
 - ii. Is there a problem with the tap? YES/NO options
 - 1) If YES:
 - a. What is the problem?
 - i. Missing or broken tap
 - ii. Leaks
 - iii. Other – (NB: Add manual field to enter information)
 - b. Have you reported the problem? YES/NO
 - i. If YES, whom have you reported it to?
 - 1. Community leader
 - 2. Ward Councillor
 - 3. Municipal janitor
 - 4. Municipal official
 - 5. Other – (NB: Add manual field to enter information)
 - ii. If NO, why have you not reported it? YES/NO (AUDIO)
 - ii. If NO, why have you not reported it? YES/NO (AUDIO)
- b. For what did you use this water? (Select all that apply)
 - i. Bathing
 - ii. Cooking
 - iii. Cleaning the house
 - iv. Toilet
 - v. Other (NB: Add manual field)
- c. Please take a picture of where you discard water.
- d. Do you also get water from somewhere else? (AUDIO)

14. Rubbish/refuse

- a. Please take a picture of where you throw away rubbish/refuse.
- b. Do you sometimes throw away your waste (ilindle) inside? (AUDIO)

15. Are there particular sicknesses in BM due to sanitation problems? If you think there are, what can you do to avoid these sicknesses? (AUDIO)

16. What do you think about the way sanitation is provided in BM? (AUDIO)

Appendix G: Cell phone survey technical notes

DoForms

- Different ‘save & send’, ‘save as incomplete’, ‘save as complete’, etc. functions were self-explanatory to me, but a bit more difficult for my research assistant to understand.
- No survey data was lost. Very little data was used to send report, with it generally being less than 1MB per survey. Reports were more or less available immediately on the back-end.
- Back-end was easy to use, but I wish that the audio/photo files can also be exported as saving individual links is an arduous task.
- I would prefer:(a) if a Google Satellite Map was used instead of a Street Map for the PDF reports; (b) the GIS information of photographs are captured together rather than taken separately; and (c) to allow interviewees to give the choice to answer survey questions in text or audio form.

Cell phone reception & signal

- I struggled to get the USSD option working to buy data bundles when in Khayelitsha, and sometimes in Cape Town.
- I had trouble sending 10 surveys remotely via a 3G connection while in Khayelitsha. On sunny days I generally had no difficulty sending reports, but sometimes it would take several minutes to try to get a GIS coordinates up to 5m accuracy. On overcast/rainy days it was difficult to send reports and near impossible to get GIS coordinates. Oftentimes the interviewee would note in instances where I was trying to get reception that the phone signal in the area was bad. I generally did not experience any trouble sending the reports remotely at home.
- Due to the difficulty I had with GIS/3G, I ended up creating a separate form to record ‘Locations & Photos’ so that I could return at a later date to collect that data & not further inconvenience my interviewee. I sometimes also just saved the report as ‘incomplete’, but I preferred ‘sending’ reports after I was done interviewing someone in the off chance that the phone would be stolen so I’d then at least have some data saved remotely.

Specific cellular phone comments

- Newer Huawei: (a) Loaded information faster than the older Huawei, but my research assistant preferred using the Samsung as it had a bigger screen, and I think Samsung is just seen as more prestigious than Huawei to use; (b) My research assistant struggled with typing answers or recording audio sometimes because he couldn't see the question at the same time as the keyboard/'text box' or 'record' button screens; and (c) Photographs were a bit dark in toilet cubicles and homes so prefer a phone with a flash.
- Samsung: DoForms audio option didn't work

Appendix H: BM sanitation practises data

Interviewee	Section	Sex	Age	Place of birth	Moved to BM	Daytime sanitation facility	Cleaners of primary toilet	Use	Anal cleanser(s)	Alternative sanitation options
1	A	Female	14	Eastern Cape	2008	Municipal ablution block	City	Day	Toilet paper	None shared
2	A	Male	12	Khayelitsha, WC	2002	Municipal ablution block	City	Day	Toilet paper	Porta-potty
3	B	Female	31	Whittlesea, EC	2006	Private home flush toilet across the road	Users	Day	Toilet paper	None shared
4	B	Female	44	Qoboqobo, EC	2006	Private home flush toilet across the road	Users	Day	Toilet paper	Bucket
5	B	Female	37	Namakwa, EC	2004	Shop flush toilet across the road	Shop	Day	Toilet paper	Bucket
6	C	Female	41	Ematshini, KZN	2004	Locked municipal flush toilet	Users; City	Day; night	Toilet paper; newspaper	None shared
7	C	Male	67	Tsolo, EC	2001	Locked municipal flush toilet	Users; City	Day; night	Newspaper	Plastic bag; bucket; open defecation
8	C	Female	42	Cofimvaba, EC	2000	Unlocked municipal chemical toilet	City	Day	Newspaper	Bucket
9	C	Female	29	Khayelitsha, WC	2001	Locked municipal flush toilet	Users; City	Day; night	Toilet paper; newspaper	None shared
10	C	Female	39	Cofimvaba, EC	1998	Unlocked municipal flush toilet	City	Day	Newspaper	Bucket
11	C	Female	39	Willowvale, EC	2000	Locked municipal flush toilet	City	Day; night	Newspaper	Bucket
12	D	Female	35	Idutywa, EC	2006	Locked municipal flush toilet	Users; City	Day	Newspaper	Bucket; ablution block
13	D	Male	22	Idutywa, EC	2009	Locked municipal flush toilet	Users; City	Day	Toilet paper; newspaper	Open defecation in wetland; plastic bag
14	BV	Female	38	Idutywa, EC	1997	Unlocked municipal flush toilet	City	Day	Toilet paper	None shared
15	BV	Female	28	Centani, EC	2008	Unlocked municipal flush toilet	City	Day	Newspaper	None shared
16	BV	Female	48	Idutywa, EC	2000	Unlocked municipal flush toilet	City	Day	Toilet paper	Bucket; open defecation
17	BV	Female	34	Cofimvaba, EC	2002	Unlocked municipal flush toilet	City	Day; night	Toilet paper; newspaper	Bucket; open defecation in N2 reserve
18	BV	Female	24	Cape Town, WC	2011	Unlocked municipal flush toilet	City	Day	Toilet paper	Porta-potty
19	Mew Way	Female	52	Ciskei, EC	1998	Unlocked municipal chemical toilet	City	Day	Toilet paper; newspaper	Bucket
20	Mew Way	Female	56	Idutywa, EC	2000	Unlocked municipal chemical toilet	City	Day	Toilet paper; newspaper	Bucket; porta-potty
21	Mew Way	Female	55	Lady Frere, EC	1998	Household municipal portable toilet	Users; City	Day; night	Toilet paper; newspaper	Unlocked municipal chemical toilet

To note, each interviewee had some form of financial support. The majority of interviewees (12 women) relied on government grants of R290 per child to care for their families. Some women supplemented their grants with their husband's earnings or sales from the informal businesses they managed. A 12-year-old male, 14-year-old female and a 31-year-old female said their mothers supported them. Two women said they had full-time jobs, and a 22-year-old male and 48-year-old female had part-time domestic work. A 55-year-old female said she relied on a monthly R1200 disability grant, and the 67-year-old male said he received an old age grant of R1200 per month.

Appendix I: Sample consent form

AUTHORISATION OF CONSENT FOR PARTICIPATION

Improving Sewerage for South Africa: A study on institutional constraints

You are invited to participate in a research study conducted by Ms. Lina Taing, a Researcher from the University of Cape Town's Urban Water Management Research Group. This project is a part of an interdisciplinary study to identify low-cost, sustainable sewerage alternatives for high density housing in the City of Cape Town municipality. Ms. Taing will employ **participant observation** where she will work in various departments as a voluntary clerk in order to gain first-hand knowledge and understanding of how the municipality operates on a daily basis and what may prevent or restrict the municipality and its various departments from effectively adopting and implementing alternative sewerage systems.

You are being asked to participate in the project because you are active in or familiar with one or more aspects of planning and implementation in your municipal department. Please read the information below and ask questions about anything you do not understand before deciding to participate in the study:

- **Participation is voluntary:** You have the right to withdraw from this project at any stage and are under no obligation to take part in this project. You have the right to refuse to answer any questions.
- **Compensation:** You understand you will not be compensated for participation.
- **Academic research and publications:** Your responses will be used solely for education and research purposes, which may be used in academic publications. This report will be available to you for comment prior to finalisation as to allow your response to be included in any published work.
- **Privacy:** We would like permission to indicate your name and position title in any publications where direct quotations or references to information you provide during this interview are used. If you do not grant permission, only the name of your department or organization and a generic position title will be used. Your name and actual position title will remain confidential.
- **Interviews:** In the instance where a one-on-one interview is requested to delve deeper into your perspective of an issue, you understand that you do not have to participate. If you do agree, you can decide whether or not to have the interview recorded.

By signing below, you are indicating that you understand the procedures described above, your questions have been answered to your satisfaction, and that you have been given a copy of this form. If you agree to participate in this study, please indicate below the conditions that apply.

Participant Observation Permission:

- I agree to participate in the study. I do not agree to participate.

Identity Disclosure: In the event of publications, I give permission to indicate:

- My name My position title

Interview Permission:

- I agree to be interviewed. I do not agree to be interviewed.

Interviews - Recording Permission:

- I give permission to be recorded. I do not give permission to be recorded.

Participant Name/Signature: _____

Appendix J: National Sanitation Policy White Paper

The 1996 *National Sanitation Policy White Paper* further developed the following tenets and measures that were proposed in the 1994 *White Paper*:

- **Demand-driven community processes:** Communities should be actively involved in the ‘pre-planning, planning, decision making and implementation stages of sanitation projects’, for policymakers assumed that a demand-driven community process would increase ‘commitment to and ownership’ of sanitation services (RSA, 1996b: 9, 6). As noted in the previous *White Paper*, communities are ultimately responsible for their needs ‘in the end’, and local governments were to ensure that communities are ‘involved in decision making’, and that community decisions were ‘made in an informed and democratic manner’ (RSA, 1996b: 4, 9).
- **Vertical alignment of intergovernmental responsibilities:** Local government should provide services; provincial government support and monitor municipalities in its jurisdiction; and national government ensure that its minimum levels of services attained (RSA, 1996b: 28, 24). The national government dictated that the local implementers of sanitation services ‘must aim to receive enough money to pay for operations and maintenance’ from municipal rates (RSA, 1996b: vi), and that local tariffs be ‘based on the national tariff policy’—such as the state-wide ‘lifeline’ tariff structure that was ‘still under preparation’ (RSA, 1996b: 18).
- **Horizontal alignment amongst different government departments:** In recognition that sanitation ‘is not simply a matter of providing toilets’, six ministries¹³³ developed the *National Sanitation Policy* (RSA, 1996b: iii). Called the National Sanitation Task Team, DWAF led the effort ‘in close co-operation’ with the others—such as the Department of Health, which was responsible for hygiene education and monitoring public health (RSA, 1996b: 24, 8). The Task Team considered the hygiene campaigns especially important, because they believed that people ‘will invest their own resources into [sanitation] improvements and adopt good hygiene practices’ if they were ‘convinced’ that such lifestyle changes are necessary (RSA, 1996b: 7, 6).

¹³³ The ‘collaborative effort’ involved the national departments of Water Affairs and Forestry; Education; Environmental Affairs and Tourism; Health; Constitutional Development and Provincial Affairs; and Housing.

- **Lifeline cross-subsidy for the poor:** As noted in the previous *White Paper*, the state would cover low-income households' 'modest levels of consumption' through 'cross-subsidies between different categories of consumers' (RSA, 1996b: 18, 16).
- **Urban household capital grants:** Policymakers intended to provide low income households 'the funds needed to build the basic minimum level of service' (RSA, 1996b: vi). The Task Team indicated that the 'national housing programme' would provide owners of new housing 'a subsidy for internal and on-site sanitation infrastructure' in urban areas, and that owners of existing housing could receive a financial 'incentive' to improve their sanitation facilities (RSA, 1996b: 25, vi).

The last point reveals that the government still had not accounted for the servicing needs of informal settlements. The Task Team had noted that 'attention will be given to ways of facilitating the improvement of sanitation residents on land owned by others'—such as informal settlements, where 'conventional communal systems are unlikely' (RSA, 1996b: 15, 25). While DWAF stated that it would 'lead' the effort that would address special circumstances (RSA, 1996b: 26), the 1996 *White Paper* offered no further provision for these special situations, except where land was 'legally occupied'¹³⁴ (RSA, 1996b: 26).

Unlike the preceding 1994 *White Paper* on water services, the *National Sanitation Policy* (RSA, 1996b: 3) elaborated on the 'range of elements' that characterise an 'adequate sanitation' facility for households and a 'basic level of service' from local governments, in terms of: (a) cost; (b) a toilet's physical attributes and the means for wastewater disposal; and (c) an education programme for users about appropriate 'hygiene-related behaviour'. According to the Task Team, these range of elements encompassed:

- **Adequate sanitation:** The 'provision and ongoing operation and maintenance of system of disposing of human excreta, waste water and household refuse', which should be 'acceptable and affordable to the users', 'must be structurally safe, hygienic and easily accessible' on a per household basis, and 'should be accompanied by correct hygienic practices and does not have an unacceptable impact on the environment' (RSA, 1996b: 3).

¹³⁴ The state mandated that property owners should 'ensure that adequate sanitation facilities are available' to their workers or tenants (RSA, 1996b: 26).

- **Basic level of service:** A ‘Ventilated Improved Pit (VIP) toilet... or its equivalent, as long as it meets minimum requirements in terms of cost, sturdiness, health benefits and environmental impact’, and has ‘an ongoing programme of easy to understand information about correct hygiene practices’ (RSA, 1996b: 3).

The Task Team explicitly stated that forms such as bucket systems¹³⁵, chemical toilets¹³⁶ and unimproved pit latrines¹³⁷ were not adequate forms of sanitation due to a number of social acceptability, economic and health concerns (RSA, 1996b: 20). In contrast, VIP latrines, septic systems and waterborne sewerage are adequate options so long as the technologies are ‘properly designed, built and maintained’ (RSA, 1996b: 20). The Task Team also defined ‘adequate’ sanitation technologies from the perspective of:

- Users, who likely focused on the social status conferred from the type of toilet one used, the facility’s convenience and its higher costs; and
- The ‘organisation responsible for managing the system’, as some options require collection of high recovery costs from users and have a complex operation and maintenance schedule (RSA, 1996b: 20).

Portrayal of adequate sanitation from users’ and servicing authorities’ perspectives shows that national government acknowledges that the two local parties often evaluated sanitation with different sets of criteria. Policymakers moreover tabulated the options that satisfied their minimum standards as a ‘hierarchy’ (Table 8). While the hierarchy did not cover the entire aforementioned list of adequate sanitation criteria, its conceptualisation implied that the state correlated different technologies with certain levels of development. The Task Team, for example, associated VIP latrines with the basic service level (‘the first stage’) (RSA, 1996b: 3, 20). The 1996 *White Paper* also characterised two other aspects of sanitation as developing in stages in a broader process:

¹³⁵ Noted for being ‘commonly operated in South Africa’ and ‘socially unacceptable to most people’, policymakers did not explain why the bucket system constituted an inadequate form of sanitation.

¹³⁶ Policymakers stated that ‘chemical toilets are not encouraged, except in emergency situations, and then only for short periods, due to the high running costs involved’ (RSA, 1996b: 20).

¹³⁷ Policymakers said ‘traditional unimproved pits... do not provide a barrier against flies’, which are recognised as a major vector of disease transmission (RSA, 1996b: 20).

Table 8: Policymakers ranked its ‘Hierarchy of Adequate Sanitation Technologies’ according to: (a) a technology’s operation and maintenance ‘complexity’; and (b) the litres of water required to flush a toilet after use (RSA, 1996b: 20). The acronym LOFLOS refers to an on-site system that uses a ‘low flow’ of water to flush the unit.

System & degree of complexity	Approximate water amount (l/flush)
VIP: Simple, but needs proper design and construction; periodic desludging or relocation	Nil
LOFLOS: Some types use mechanical flushing; soakaway or soakpit needs proper design; periodic desludging	0.5 to 1
Septic tank: Soakaway needs proper design and construction; periodic desludging	6 to 15
Solids-free sewerage: Needs reticulation and treatment works; periodic desludging	3 to 15
Conventional sewerage: Needs reticulation and treatment works	6 to 15

- **Household toilets:** Policymakers recognised that sanitation improvement ‘is a continual process’ that ‘keeps pace with a household’s aspirations, as well as a household’s ‘willingness to pay to fulfil those aspirations... through a series of investments’ (RSA, 1996b: vii, 23).
- **Policymaking and implementation:** In light of the ‘limited practical experience in the field and the evolving [local level] institutional arrangements’, the Task Team suggested that sanitation projects should be flexibly ‘structured in such a way that mistakes are easily spotted and corrected, and changes to the policy are made if necessary’ (RSA, 1996b: 28, 1). The Task Team also proposed a ‘two-year start-up phase’ where the experience learned from local governments could ‘be used to design and launch a full-scale national sanitation programme’ in which the state would ‘aim to achieve [its] ambitious goal of meeting the basic sanitation needs of all South Africans within ten years’ (RSA, 1996b: 28).

While the first point reiterated the state’s position on household toilet investments, the second point introduced the concept of national government relying on its local counterparts to develop a nation-wide programme that would effectively address the ‘unknowns in the business of improving sanitation for low income households’ (RSA, 1996b: 1). The Task

Team's interest in local implementers' experiences is significant because it suggests that municipal experiences can inform national policy.

Aside from elaborating that individuals are ultimately responsible for their own toilets and characterising sanitation as incrementally improving in levels or stages, the 1996 *White Paper* chiefly repeated what was previously said in the preceding *White Paper*. The national government still had not offered guidance for servicing informal settlements or addressed broader 'safe sanitation' household needs such as 'getting rid of human excreta, dirty water and household refuse' (RSA, 1996b: v). For example, despite avowing that household sanitation 'means much more than building toilets' (RSA, 1996b: v), policymakers did not offer advice about or additional funding for: (a) hand-washing, bathing and laundry facilities; and (b) domestic greywater and refuse disposal. National policymakers moreover stated that the 1996 *White Paper* was neither 'an implementation manual' nor a regulatory policy, for they did 'not aim to 'tell people [about] how to go about improving sanitation', and they were still 'considering the regulatory framework required' for aspects of water services (such as the role of the private sector) (RSA, 1996b: 2, 26).

The policymakers also extended the state's goal for realising universal basic sanitation provision from 2001 (as stated in the 1994 *White Paper*) to 2006. Policymakers did not explain the reasons for the change, though it might be related to the time-consuming nature of national policymaking processes. For example, the Task Team remarked that the 1996 *White Paper* was finalised in October of that year after being disseminated for public comment in November 1995, and being re-worked in a 'series of provincial workshops' that involved '600 people from a wide range of backgrounds' (RSA, 1996b: ii). Such a timeline indicates that national government can take up to one year to finalise its policy. To note, the national government 'never formally approved' of the 1996 *White Paper* (DWAf, 2001c: 4). A summary of the document was nonetheless included to help explain some of the reasoning that underpins the 2001 *Basic Household Sanitation White Paper*.

Appendix K: Basic sanitation definitions (1994-2003)

Minimum standard	Policy/Law & description
Adequate sanitation (RSA, 1994: 32)	1994 Reconstruction and Development Programme policy Referred to a 'toilet and refuse removal' for households.
Adequate sanitation (DWAF, 1994: 15)	1994 Water Supply and Sanitation Policy White Paper A 'well-constructed' ventilated improved pit (VIP) latrine 'per household'.
Adequate sanitation (RSA, 1996b: 3)	1996 National Sanitation Policy White Paper The 'provision and ongoing operation and maintenance of system of disposing of human excreta, waste water and household refuse, which is acceptable and affordable to the users. This system must be structurally safe, hygienic and easily accessible. Each household should have access to its own facilities. Furthermore it should be accompanied by correct hygienic practices and does not have an unacceptable impact on the environment'.
Adequate level of (household) services (RSA, 1996b: 3)	1996 National Sanitation Policy White Paper A 'Ventilated Improved Pit (VIP) toilet in a variety of forms, or its equivalent, as long as it meets minimum requirements in terms of cost, sturdiness, health benefits and environmental impact. In addition provision should be made for an ongoing programme of easy to understand information about correct hygiene practices'.
Basic sanitation (RSA, 1997c: 8)	1997 Water Services Act What is 'necessary for the safe, hygienic and adequate collection, removal, disposal or purification of human excreta, domestic wastewater and sewage from households, including informal households'.
Basic sanitation services (DWAF, 2001a: 4)	2001 Regulations relating to compulsory norms and standards 'The minimum standard for basic sanitation services is—(a) the provision of appropriate health and hygiene education; and (b) a toilet which is safe, reliable, environmentally sound, easy to keep clean, provides privacy and protection against the weather, well ventilated, keeps smells to a minimum and prevents the entry and exit of flies and other disease-carrying pests'.
Basic level of sanitation (DWAF, 2001c: 5, 6)	2001 White Paper on Basic Household Sanitation 'The minimum acceptable basic level of sanitation is: (a) appropriate health and hygiene awareness and behaviour; (b) a system for disposing of human excreta, household waste water and refuse, which is acceptable and affordable to the users, safe,

Minimum standard	Policy/Law & description
	hygienic and easily accessible and which does not have an unacceptable impact on the environment; and (c) a toilet facility for each household’.
<p>Basic sanitation facility (DWAF, 2003: 46, 66)</p>	<p>2003 Strategic Framework for Water Services ‘The infrastructure necessary to provide a sanitation facility which is safe, reliable, private, protected from the weather and ventilated, keeps smells to the minimum, is easy to keep clean, minimises the risk of the spread of sanitation-related diseases by facilitating the appropriate control of disease carrying flies and pests, and enables safe and appropriate treatment and/or removal of human waste and wastewater in an environmentally sound manner’.</p>
<p>Basic sanitation service (DWAF, 2003: 46, 66)</p>	<p>2003 Strategic Framework for Water Services ‘The provision of a basic sanitation facility which is easily accessible to a household, the sustainable operation of the facility, including the safe removal of human waste and wastewater from the premises where this is appropriate and necessary, and the communication of good sanitation, hygiene and related practices’.</p>
<p>Interim sanitation service (DWAF, 2003: 67)</p>	<p>2003 Strategic Framework for Water Services For informal settlements: ‘A temporary sanitation service is an interim measure and should provide privacy to the user, be readily accessible and in close walking distance, and provide for the safe disposal of human waste’.</p>