DEPARTMENT OF ANTHROPOLOGY AND ARCHAEOLOGY

Master of Social Science in Development Studies

Gender and informal urban sanitation: Experiences and management of shared sanitation in Phomolong Informal Settlement in Pretoria, South Africa

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DECLARATION

I hereby declare that this dissertation is the result of my work and where applicable, have indicated and given due acknowledgement. I further declare that I have obtained the necessary permission to conduct this research.

_______________________ ________________

Miss Tapiwa Shoniwa Date

ETHICS STATEMENT

I, Tapiwa Tania Shoniwa, the author of Gender and informal urban sanitation: Experiences and management of shared sanitation in Phomolong Informal Settlement in Pretoria, South Africa, has obtained, for the research described in this work, the applicable research ethics approval.

I, Tapiwa Tania Shoniwa declare that I have observed the ethical standards required in terms of the University of Pretoria's Code of Ethics for researchers and the Policy guidelines for responsible research.

ABSTRACT

In informal settlements, shared sanitation facilities offer pragmatic solutions as it allows inhabitants to access sanitation because they cannot install in-house toilets. However, the World Health Organisation (WHO) classifies shared sanitation as unimproved because there is a tendency for facilities to be mismanaged resulting in unhygienic practices. This study addressed the issues around the quality of shared sanitation by looking at how sanitation activities between men and women shape the use and management of shared sanitation facilities within and between households. The study adopted a qualitative research paradigm, at both macro and micro levels, of data collection. It made use of a thorough review of literature and in-depth interviews which provided a deeper insight into how sanitation policy and practice shape and influence sanitation processes in informal settlements and the wider implications they have on state-society relations. A case study method of inquiry of Phomolong informal settlement revealed that shared sanitation is embedded in a host of a complex and overlapping processes, which revolve around tenure insecurity, urban poverty, gender power relations and the historical legacies of racialised urban planning.

The study concludes that the absence of a coherent sanitation policy for informal settlements has not only widened sanitation backlogs in informal settlements, but it has significantly deteriorated these communities’ sense of citizenship and belonging. To understand Phomolong’s informality, one has to appreciate that self-management underpins its sanitation processes as a result of inadequate state-led service delivery. Although the Free Basic Sanitation policy (FBSan) is designed to specifically cater for poor urban communities, it has done little to alleviate the challenges of informal urban sanitation. A host of social issues shape how shared sanitation is accessed, perceived and managed on a daily basis. Specifically, gender and tenure status provide an added layer of challenges as women navigate the burden of being the custodians of household health and hygiene as well as their own personal security and dignity.

Keywords: Informal urban sanitation, Shared sanitation, Decision-making, Toilet, Informal settlements, Gender, Tenure, Sanitation policy, Free Basic Sanitation.

DEDICATION

To my father, you never let me down. To my mother, who embodies womanhood and motherhood with strength and elegance, I love you.

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LIST OF ACRONYMS

ANC	African National Congress
CIDs	City Improvement Districts
CoGTA	Department of Cooperative Governance and Traditional Affairs
CoT	City of Tshwane
DA	Democratic Alliance
DHS	Department of Human Settlements
DPLG	Department of Local Government
DWA	Department of Water Affairs
DWAF	Department of Water and Forestry
DWS	Department of Water and Sanitation
FBS	Free Basic Services
FBSan	Free Basic Sanitation
GEAR	Growth, Employment and Redistribution plan
JMP	Joint Monitoring Programme
NSPU	National Sanitation Programme Unit
O&M	Operation and Maintenance
RDP	Reconstruction and Development Programme
S&H	Sanitation and Hygiene
SFWS	Strategic Framework for Water Services
UISP	Upgrading of Informal Settlements Programme

UNICEF	United Nations Children’s Fund
WHO	World Health Organisation
WSA	Water Services Authorities
WSP	Water Service Provider

CHAPTER ONE

INTRODUCTION

1 Introduction and Background

A toilet is arguably one of the world's most useful inventions (WSP, 2007), and yet, sanitation has indubitably been an under-acknowledged developmental issue and an afterthought in policymaking. In 2007, the World Bank's Water and Sanitation Program (WSP) published an article entitled "What's A Toilet Worth?" The article revealed that health and economic costs of poor sanitation amount to US$260 billion annually (WSP, 2007). Although sanitation is an underappreciated utility, Allen *et al.* (2006) argue that sanitation remains a luxurious commodity accessible to a minority in developing countries.

This study examines the challenges around the quality of shared sanitation in informal settlements in South Africa, through the situation of Phomolong informal settlement. In South Africa, sanitation in informal urban settlements or alternatively, informal urban sanitation, is a complex and interconnected process tied to and shaped by tenure insecurity, urban poverty, illegality, neoliberal urbanism and historical urban planning (McFarlane & Silver, 2017). In recent years, the concerns around South Africa's sanitation approach has grown in importance in light of several pit-toilet related deaths, including that of 19-year old Sinoxolo Mafevuka, who was raped and murdered whilst using a communal toilet in 2016 and 3-year old Omari Monono's in 2018 (Chabalala, 2018; Mzantsi, 2016).

In informal settlements, inhabitants rely heavily on shared sanitation facilities because they address issues of land tenure, space scarcity, poverty, transient populations and the challenge of providing in-home sanitation facilities (O'Keefe *et al.*, 2015). The World Health Organization (WHO)/United Nations Children's Fund (UNICEF) Joint Monitoring Programme (JMP) for Water Supply and Sanitation label shared facilities as unimproved sanitation because they do not hygienically separate human faecal matter from human contact (Awunyo-Akaba *et al.*, 2016;

Leiwakabessy, 2015; WHO/UNICEF JMP, 2017). However, Mazeau *et al*. (2014) argue that shared facilities are the cornerstone of sanitation delivery in informal urban settlements because they offer pragmatic and cost-efficient solutions for increasing sanitation coverage.

The WHO/UNICEF JMP's concern around shared sanitation facilities is that they proliferate excreta-related diseases due to overuse, bad management and poor maintenance (Bosman, 2014; Hirai *et al*., 2016; Mjoli, 2010). Tsinda *et al*. (2013) depict shared sanitation as a common good that is freely available and utilized by all, on the condition that the users oversee the operation and maintenance (O&M) costs. Unfortunately, the threat of eviction often disincentivises inhabitants from practicing and investing in good sanitation and hygiene (S&H) practices (Simuyu *et al*., 2017; WHO/UNICEF JMP, 2017). This translates to a "tragedy of the commons" where individuals overuse a shared resource to maximise its benefit and when demand outweighs supply, increased consumption hinders the ability of other residents to benefit until the resource can no longer be enjoyed (Hardin, 1968; Mjoli, 2010).

However, of great concern in sanitation policy discourse is the dissociation of behaviour and gender, how it affects the quality and sustainability of shared sanitation facilities. Although the problem of the commons is widely felt, women contend with specific social and biological burdens when they access shared sanitation (Hirai *et al*., 2016; McFarlane *et al*., 2014). The burden of the commons, disproportionately, falls on women and young girls because they have to adapt their daily rhythms and routines to suit the prevailing sanitation dynamics (Meth, 2017; Ray, 2017). Many women's coping strategies include reducing food and drink intake, making short and brief toilet visits either at night or during the day or using the bucket toilet at night (Kabange & Nkansah, 2015; McFarlane *et al*., 2014; Simuyu *et al*., 2017).

Moreover, when necessary, women are often forced to resort to open defecation as evidenced by a study conducted in Bhopal, India where it was reported that 94% of

the female respondents suffered public taunting and violence when they were caught, whereas instances of men urinating behind a tree were considered unpleasant, but not taboo (IDC 2013). To this notion, the challenge with shared sanitation relates more to S&H behaviour. Numbers were a critical issue for Kabange and Nkansah (2015) who observed a direct correlation between the people sharing and the ability to clean and maintain a facility in Ghana's informal settlements. Simuyu *et al*. (2017) also observed that the quality of shared facilities in Kisumu, Kenya improved when fewer people shared and cooperated in managing their sanitation facility.

1.1 Research problem

The post-1994 period has seen a sharp increase of rural-urban migration to South Africa's major cities as people seek employment or educational opportunities for a better life (Petterson, 2016). However, for the majority who migrate to cities, they are alienated from the formal labour and property market because they lack the necessary skills, qualifications and financial resources (Ambole, 2016; McFarlane & Silver, 2017). As a result, they illegally occupy private or state-owned land where they erect shacks and construct makeshift sanitation facilities, which are shared by two or more households.

South Africa's legislation, specifically the South African Constitution, dictates that all persons are equal before law and are entitled to access to basic services (Republic of South Africa (RSA), 1996). In practice, however, the manner in which the state delivers sanitation to informal settlements reflects the invisibility and stigmatisation of citizens (Habitat International Coalition, 2016; McFarlane & Silver, 2017). Huchzermeyer (2004) and Todes *et al*. (2008) argue that state support for informal communities is limited by its technocratic and legalistic conceptualisation of urban informality. Currently, the most active sanitation provision that caters for informal settlements is the Free Basic Sanitation (FBSan) policy (Department of Water and Sanitation (DWS), 2012; RSA, 1994). One of the criticisms levelled against the FBSan was its unrealistic sanitation targets. The policy was gazetted in 2008 and the

target was to provide universal sanitation access by 2014, but these targets have been postponed more than twice, with the current deadline being 2030 (Dugard, 2016; DWS, 2016).

McFarlane *et al.* (2014) argue that because informal urban sanitation interacts with overlapping social issues, it necessitates an interrogation of how tenure, urban poverty, governance and notions of citizenship relate to the broader informal urban sanitation processes (McFarlane & Silver, 2017). One of the foundational objectives of this study was to examine the everyday realities of informal urban communities in democratic South Africa. Central to this interrogation was an appreciating that gender differences not only shape everyday sanitation realities and practices, but also determine priorities for waste management (Luthi *et al*., 2010; WEF, 2015).

The burden of shared sanitation is often borne by women and young girls because the prevailing social norms dictate that women are responsible for maintaining the cleanliness and hygiene of a sanitation facility (Hirai *et al*., 2016; Simuyu *et al*., 2017). Men, on the other hand, determine financial decisions and oversee technical-based O&M tasks such as construction, the location of the toilet and the materials used and maintenance (McFarlane, 2012; Taing, 2015). These gendered sanitation divisions undervalue that women have accumulated vast knowledge in sustaining household health and hygiene in the midst of limited resources and support (Mazeau *et al*., 2014; Tsinda *et al*., 2013). In addition, such divisions disproportionately affect women's ability to coproduce sanitation in a way that speaks to their needs for personal security, dignity and menstrual hygiene (McGranahan, 2015).

Therefore, that is not to say that sanitation policy for informal settlements should then alienate men. Instead, it must be considered how gender differences function in how shared sanitation is used and managed (Luthi *et al*., 2010; McGranahan, 2015; WaterAid International, 2019). This is the primary focus of this study. In addition, it will shed light on how shared sanitation processes in Phomolong informal settlement

also shape the broader understandings of citizenship, state governance and gender power relations.

1.2 Study objectives

Main objective

To explore how men and women in Phomolong access, perceive and manage shared sanitation on a daily basis.

Specific objectives

1. To understand what influences the sanitation behaviours and practices in Phomolong.
2. To explore how women in Phomolong cope with shared sanitation.
3. To analyse the relationship between the state and residents in Phomolong and how it shapes sanitation perceptions and experiences.
4. To trace the development of urban sanitation and how it has influenced the nature of contemporary policies and practices.

1.3 Study questions

Main research question

How do men and women access, perceive and experience shared sanitation in Phomolong on a daily basis?

Specific questions

1. What influences the sanitation behaviours and practices in Phomolong?
2. How do women in Phomolong cope with poor sanitation?
3. What is the nature of the relationship between the state and residents of Phomolong? How does this relationship shape sanitation perceptions and experiences?
4. How has the development of urban sanitation influenced the nature of contemporary policies and practices?

1.4 Key definitions

1.4.1 Informal urban sanitation

Informal urban sanitation describes the widespread sanitation processes and practices that occur in informal urban settlements (Tsinda *et al.*, 2015). McFarlane *et al.* (2014) identify four informal urban sanitation processes, namely: self-managed processes, patronage, solidarity and exclusion, and open defecation. These processes detail how sanitation in informal settlements is created, contested and managed (ibid). Informal urban sanitation provides insight into the multi-dimensional character of sanitation in informal settlements. As noted by Hogrewe *et al.* (1993), the concept speaks to how the urbanisation trends, urban informality, tenure status and spatial patterns shape sanitation practices for peri-urban communities.

1.4.2 Shared sanitation

According to the WHO/JMP (2018) shared sanitation is a facility which is shared by two or more households and is therefore counted as "limited" and "unimproved" sanitation. However, for several scholars and international organisations, it remains debateable whether shared sanitation should be classified as unimproved (Rheinländer *et al.*, 2015; Water & Sanitation for the Urban Poor (WSUP), 2018). These debates revolve around how shared sanitation is likely to be safe, if properly designed, used and managed (Evans *et al.*, 2017; Mara, 2016). In addition, Chipungu *et al.* (2018) argue that shared sanitation is substantially more functional for informal urban settlements because of tenure status and limited space.

1.4.3 Self-managed sanitation

Self-management is based on the idea that people provide and improve their own access to sanitation as a result of limited state-led service delivery (Joshi *et al.*, 2011; Taing, 2016). McFarlane *et al.* (2014:3) argue that self-management as a sanitation process, shapes and reproduces "…the production and maintenance of informal sanitation…" However, this form of sanitation is usually inadequate. Since it is premised on poor urban communities sourcing and incurring the financial costs of construction and maintenance, users typically opt for informal and makeshift toilets built from found, salvaged or bought materials (Macarthy, 2018). As a result, these facilities do not meet the basic hygienic standards stipulated at international and national level.

1.5 Structure of the dissertation

The dissertation is organised into six chapters. Chapter One introduces and contextualises the research problem and presents the research questions. Chapter Two reviews the existing literature on contemporary urbanisation issues, urban informality and discusses the conceptual framework that underpins this study. Chapter Three presents the methodological framework used. It introduces the philosophical underpinnings that guided and shaped this study. It also describes the research design, study area, data collection tools and procedures for data analysis. The chapter concludes by discussing the ethical considerations the researcher had to be cognisant of and the challenges encountered during data collection. Chapter Four provides a macro level analysis on the development of informal urban sanitation and the democratic government's sanitation approach and how the history of informal urban sanitation impacts its policies and practices.

Chapter Five provides a micro level analysis of informal urban sanitation in Phomolong. It begins by looking at the various social issues that affect and shape shared sanitation dynamics and how households deal with inadequate sanitation. By specifically looking at the gendered differences, tenure, toilet type, decision-making processes inherent in sanitation processes, it analyses how these issues determine use and management of shared facilities. Chapter 6 concludes the study by summarising and discussing the broad themes that emerged from and connects them to the study objectives. It situates shared sanitation in Phomolong in the following themes: the development of sanitation policy in South Africa; secondly, Phomolong's sanitation experiences and management and finally, residents' notions of citizenship and inclusion. It concludes by proposing policy implications based on the analyses that emerged in the study.

CHAPTER TWO

LITERATURE REVIEW

2 Introduction

This chapter begins by providing a review of the existing literature in the field of contemporary urbanisation issues and urban informality. It outlines the broader picture of capitalism in proliferating urban poverty and entrenching a system of political, spatial and socio-economic inequality. The subsequent sub-sections discuss the broader debates on the urbanisation of poverty, urban informality and alternative paradigms. The chapter draws on literature from Henri Lefebvre's right to the city, which offers a conceptual framework for understanding South Africa's current urban informality issues. Although Lefebvre's original conception is Marxist and Existentialist, liberal narratives of the right to the city have emerged in an attempt to move toward a regulated and less radicalised understanding of contemporary urbanisation dynamics. The following sections engage with Lefebvre's key issues: the everyday and the production of space. In so doing, they facilitate the discussion on the debates and controversies of today's interpretations of the right to the city and its incorporation at national and global levels. The concluding section explores a gendered claim to right to the city by exploring how the *"genderness"* of space produces inequalities which often translate into violence against women.

2.1 The neoliberalisation of urbanisation

Cities not only serve as the primary arena for producing and consuming goods and services, but they are becoming increasingly important in accelerating economic growth by linking people, information and products with the wider world. Countries in the Global South, however, have experienced urbanisation without economic growth, thus drawing criticism to the urbanisation-growth rhetoric for failing to address the persistent urban crisis (Liddle, 2017; Mitlin, 2014).

In South Africa, urbanisation is growing faster than the government's capacity to provide formal housing and address the sanitation crisis. One of the defining features of neoliberal urban planning is the swelling and increased marginalisation of informal urban settlements. Based on Rostow's stages of economic growth, increased urbanisation positively correlates with a country's rate of economic development (Haynes *et al.*, 2011). The *take-off* stage is typified by the disintegration of traditional values and structures in favour of urban-industrial economic structures.

The increased industrial expansion triggers a massive wave of migration from rural to urban areas as people seek improved standards of living. However, contrary to Rostow's model, fast and uncontrolled urbanisation in Africa has engendered cities with little structural transformation (Carmody & Owusu, 2016; Cruz & Forman, 2015). Meaningly, national economies in most parts of sub-Saharan Africa remain largely dependent on exporting natural resources, much to the detriment of indigenous manufacturing sectors (Gollin *et al.*, 2013; Liddle, 2017).

Several studies conducted on urbanisation in sub-Saharan Africa and parts of Southeast Asia (D'Alenco *et al.*, 2018; O'Loghlen, 2015; Wade, 2009) detail the deepening complexities of the urban crisis, as evidenced by widening economic inequalities and fragmented and segregated spatial patterns. Falü (2014:60) refers to how the commodification of urban life has come at a substantial "social cost" as the value of space is perceived as mainly an object of exchange. It is therefore unsurprising that this has resulted in limited opportunities for upward mobility amongst low-income households, deficiencies in service delivery and the suppression of "…the true potential of urban life…" (Alisdairi, 2014:6).

Historically, urbanisation was an indication of economic growth and development. However, Africa's urbanisation stands in stark contrast to the patterns displayed in Latin America and Asia (Gollin *et al.*, 2013). In sub-Saharan Africa, especially, urbanisation has been largely, shaped by political history where urban policy was deliberately engineered to maintain racial segregation (Todes *et al.*, 2008; Turok *et*

al., 2017). One of the defining features of sub-Saharan Africa's urbanisation trends has been the proliferation of informal urban settlements, with much of the populace being confined to overcrowded, un-serviced and marginalised areas (Abahlali baseMjondolo, 2011; D'alenco *et al.*, 2018; Massey, 2013).

Studies of informal urbanisation and economic inequality in post-apartheid South Africa have been uneven. Statistical data reveals that significant strides have been made in the provision of housing and basic services as the proportion of households living in informal settlements decreased from 17% to 11% between 2002 and 2014, respectively (DWS, 2012; DWS, 2016; StatsSA, 2016). However, several authors contend that spatial and socio-economic inequalities in post-1994 South Africa seem to have increased; this is partly due to the failure of social development policy to address the underlying structural inequality in income and more especially, wealth distribution (Creamer, 2018; Turok *et al.*, 2017; Van der Berg, 2014).

A recent study by economist Orthofer (2016) details the extent of the unequal wealth distribution in South Africa. Her critique uses the Gini coefficient – a measurement of income or wealth inequality (Liddle, 2017). The argument for equal wealth distribution is twofold: it measures a household's ability to sustain its living standards during periods of unemployment. Moreover, by empowering households to generate income through interests, pension assets, dividends and capital gains, it increases generational wealth among families (Liddle, 2017; Piketty, 2013; Tshikotshi, 2009).

What is strikingly significant is that low income households are "asset-poor", meaning they are unable to sustain their long-term wellbeing due to the lack of savings (Orthofer, 2016:23). South Africa's relative wealth inequality increased from 0.59 in 1993 to 0.65 in 2015, making it one of the most unequal and exclusionary societies in the world (World Bank, 2018). The data shows that 80% of the base population own no wealth at all, whereas 10% of the elite population own more than 90% of all wealth (Orthofer, 2016).

Banks (2015), however, adopts a political economic analysis to engage with the complexities of urban poverty and wealth inequality. She frames the understanding of urban poverty as more than "…visible experiences and consequences", and seeks to problematise the political economic forces that create and reproduce urban poverty (Banks, 2015:267). By distinguishing coping and improving households, she advances the idea of asset accumulation as crucial to poverty reduction strategies and promoting upward mobility amongst low income households.

Banks (2015) and Soares (2016), refer to governments' regulatory framework as a crucial precondition of determining the effectiveness of productive assets. Their analyses offers a scathing critique of the state of urban planning, moreso in African countries, where planners fail to re-imagine informality as a new paradigm for understanding urbanisation (O'Loghlen, 2015; Scott, 1998). As a result, low income residents seldom experience the benefits of belonging in the city as they are unable to access formal structures to assert their rights.

2.1.1 Informality debates

Urban informality is a multidimensional concept and manifests itself in myriad ways, moreso when situated within contemporary global, regional and local narratives. Although there is an avoidance in literature to offer a static definition of the term (see Banks, 2015; Cabalfin, 2014; Koster & Nuijten, 2016), this paper adopted Renë Lemarchand's (1991:214) depiction of informality as the "shadowy space" between the state and market.

Situating informality in the wider context of the economic system and urban governance uncovers how informality is created and reproduced as a result of viewing the state and market as inherently conflictual (Koster & Nuijten, 2016; Lemarchand, 1991). The state's inadequate performance to secure legitimate and sustainable markets translates to crony capitalism where the economy is embedded within patron-client ties, with much of the poulace being forced to channel its enterpreneurial energies into the informal sector (Van der Berg, 2014).

Renë Lemarchand (1991) was by no means the first critic of the formal-informal binary, but his work on the relationship between informality and market economies offers new and alternative ways of thinking about urbanisation. To challenge such binaries, he explores the cultural underpinnings within African informal economies and cautions against convieniently labeling these practices as vulnerable or marginal (Carmody & Owusu, 2016; Lemarchand, 1991). The exchanges embedded within [African] informality are deeply rooted in diverse social structures such as patron-client relationships, class lines and community and kinship networks (Kjellën & McGranahan, 2006; Soares, 2016).

The following sub-sections attempt to explore the conceptions of informality that emerge in urban studies.

2.1.1.1 Informality as an image of anarchy

The view that informal urban areas are unruly or a threat to the modern city reveals the resurgence in "…colonial hierarchies…" (Parthasarathy, 2009). Cities in the Global South, their services and technologies or lack thereof are defined and valued only in relation to those in the Global North (Wade, 2009). A review of postcolonial critiques of informal urbanism uncovers a pattern where the institutions of urban planning and development embark on aestheticising projects in order to sell to business interests (Slavnic, 2010; Varley, 2013; Wade, 2012).

The destructiveness of attaching such labels was seen in South Africa as it prepared for the 2010 FIFA World Cup. The N2 gateway project, as it infamously came to be known, formed part of the broader Breaking New Ground (BNG) housing strategy which sought to address a 400 000 housing backlog (Stephanus, 2013). During its implementation, 20 000 residents from Joe Slovo informal settlement along the N2 highway, were forcibly evicted and relocated to Delft Township which is in the city's periphery and far from the prying eyes of the global community (Newton, 2009; Rawoot, 2014). Furthermore, the settlement's position along the N2 highway - the

dominant transport route connecting the city and the airport, highlights the prevalence of dichtomous thinking in urban planning (Stephanus, 2013). O'Loghlen (2014:10) writes:

> To posit that slums are merely eyesores that require removal is a limiting and incomplete understanding of the issue. Unfortunately to date the urban planning system has failed to satisfactorily address informal settlements.

Critics have problematised the fast tracking of the slum eradication initiative as a way to prepare Cape Town for the World Cup because it negated the real social needs of the urban poor in favour of the economic benefits offered by the mega sporting event (Fitzgerald, 2017). Consequently, the Joe Slovo slum eradication project has been described as the most painful reminder of forced removals since the Apartheid era (Joubert, 2007).

Contemporary urban colonialism has dangerously reduced cities in developing countries as inferior and unappealing compared to Western cities, and as a result, it has fostered aggressive urban competitiveness and socially insensitive urban policies (Banks, 2015; Fox, 2013). Up until the last half of the 20th century, urban informal settlements were portrayed as unscrupulous and unmotivated communities that were an impediment to national economic development (AlSayyad, 2004). Although the era of post-development has given rise to new modes of reconceptualising urban informality, these stereotypes continue to dominate and influence urban policy (Fawaz, 2016; Wade, 2009).

2.1.1.2 Informality and urban elites

Literature is clear on that informality embodies diverse activities and it is not exclusively related to poverty (Anciano, 2017; Parthasarathy, 2009; Slavnic, 2010). The adoption of informal practices by middle and high income groups, developers and state officials, is a common global practice, either as part of livelihood strategies or to circumvent formal regulation (Banks, 2015). Downward raiding, for example, an

emerging research interest, involves elites invading poor urban areas and upgrading infrastructure and services, resulting in the displacement and exclusion of poor urban communities (Fox, 2013; McFarlane, 2012).

In informal settlements, where service delivery leaves a lot to be desired, state officials, middle and high income groups have undertaken the role of informal service providers. In East Africa, especially, water vending is a lucrative and multi-networked business (Kjellën & McGranahan, 2006; Syagga *et al.*, 2002). State officials in Kenya have been implicated in several land racketeering schemes, a practice where elites control land and collect payments from cartels that provide informal services such as water and sanitation (Corburn & Karanja, 2016; Fox, 2013; Mitlin, 2014). The prevalence of this practice is perpetuated by the state's absence in service provision and infrastructural development, creating a hotbed for urban elites to exploit poor communities (Dawson, 2014; Thirkell, 1996).

The informal urban land market is becoming increasingly important in supplementing household incomes among middle income groups (Cabalfin, 2014; McFarlane, 2012). Patterns of informal urban behaviour among the emerging African middle income groups are becoming increasingly evident as they erect, occupy or lease out shacks on untenured land. The prevalence of such urban behaviours not only challenges the view that informal practices are undertaken by the ingenious urban poor, but it de-legitimises the reductionist notions of informality (D'alenco *et al.*, 2018; Fawaz, 2016). The emerging urban cultures, as far as the middle class is concerned, are certinainly reshaping the urban informality debate in terms of developing new ideas of legitimacy.

Various authors often attribute downward-raiding with patron-client relations, which is a long established political practice in informal settlements (Anciano, 2017; Fox, 2013). The subsequent sub-section explores patron-clientelism in more detail.

2.1.1.2.1 Patron-clientelism

Rothstein (1979) defines patron-clientelism as a political relationship between the state and its citizens, where the citizens are unable to access public benefits to which they are entitled to, unless they establish personal ties with those in power inorder to access public goods in exchange for political support and other services. There are several reasons for and variations of patron-clientelist relationships (Beresford, 2015; McFarlane, 2008; Zaman, 2015). However, this paper adopted the typology presented by Shoemaker and Spanier (1984), who drew on the proxy conflicts during the Cold War to analyse the types and objectives of patron-client relationships.

Firstly, it is important to understand what necessitates the establishment of patron-clientelist ties. According to Shoemaker and Spanier (1984), the drivers of patron-clientelism can be distinguished under the following headings:

- *Ideology objectives* – are driven by the patron's demand to realign the client's way of life with his/her own political, economic and institutional principles. Realignment seeks to exemplify the patron's superiority thus compeling the client to change his/her own political, social and economic values in order to receive the benefits of affiliation.
- *Solidarity objectives* – occur when the patron seeks to integrate client(s) into his sphere of influence where the former usually requires a public display of allegiance. This relationship is best shown through voting conformity or support for public issues of significance. Under solidarity objectives, the patron not only receives more tangible and quantifiable benefits, but is more lenient about controling the client's values and belief systems compared to ideological objectives.
- *Strategic objectives* – emerge when the patron acquires a strategic advantage from the client by controling a major resource or a significant piece of the client's territory. Thus, the patron typically seeks to deny or restrict the use of strategic advantages to their rivals. Presented as the most important type of objective, the patron's pursuit and access to strategic advantages is highly dependent on the client's cooperation and so, the

patron allows significant liberty to the client because they realise that the relationship is vital to their own security.

A key difference in the types of patron-client relationships is the degree of coercion that the patron has over the client (Baghdasaryan, 2017; Do, 2016; Rothstein, 1979). The table below illustrates Shoemaker and Spanier's understanding of the 6 types of patron-clientist relationships.

Table 2.1: Types of patron-client relationships

Client's threat environment	Ideology	Solidarity	Strategic advantage
HIGH	Patron-centric	Patron-prevalence	Influence parity
↓ LOW	Patron and client indifference	Client-prevalence	Client-centric

Adapted from: Do (2016) and Shoemaker and Spanier (1984)

In the first three relationships, the patron exerts significant influence whereas the client perceives a high threat environment from these relationships.

1. *Patron-centric* – is a relationship informed by the patron's demand for ideological conformity rather than tangible and measurable benefits. The patron's influence and domination is advanced by the client's view that the relationship is vital to their survival.
2. *Patron prevalence* – whilst there is some degree of internal autonomy for the client, patrons exert significant control over the client when it comes to alignment over key issues.

3. *Influence parity* – this relationship diverges from patron-centric and patron-prevalence, but the goals are strategic in nature as the patron seeks to challenge and gain supremacy over his rivals. In this arrangement however, the client can exert his/her domination over the patron because the relationship is crucial to the survival or security of the latter. Therefore, the patron is willing to, "…go to great lengths, expense, and risk to keep the client on board." (Zaman, 2015:30). This argument holds in various political contexts, that is, democratic, semi-liberal and authoritarian states. Dawson's (2014) account of patronage politics in Zandspruit informal settlement [located on the periphery of Johannesburg], highlights how this practice in the South African context can be traced to the government's unresponsiveness and neglect of black South Africans during Apartheid. Particularly from the 1970s, communities resorted to establishing personal relationships with the traditional leadership and bureaucracy inorder to receive favours and access to resources (Anciano, 2017; Dawson, 2014).

The last three relationships however, comprise of clients who are less responsive to the patron's demands because they are situated in low threat environments.

4. *Patron and client indifference* – as the name implies, both patrons and clients are unmoved by each other's demands. Ideological goals drive the patron to seek control over the client's internal character and belief system. Unless the patron offers significant and tangible benefits, the client will remain unresponsive to the patron's advances.
5. *Client prevalence* – the indifference marked in type **4** relationships ceases to exist under this arrangement. The increased willingness on the part of the patron to invest and prolong this relationship is driven by goals of solidarity. However, the client is not equally motivated to keep the relationship intact and consequently will exploit the patron's desire for his continued participation.
6. *Client-centric* – for the authors, client-centric relationships prove to be the most dangerous because they are largely dominated and determined by the client. They are marked by the patron's desperation for strategic assets that will aide his need for hegemonic supremacy and competitiveness over his

rivals. Therefore, because these strategic assets are under the ownership or control of the client, the patron will incur a substantial cost inorder to access these resources.

The typology presented above, that is, type **4**, **5** and **6** relationships, depart from the flawed idea that patron-clientelist relationships are fixed and rigidly structured arrangements (Beresford, 2015; Cabalfin, 2014; Khan, 1998).

2.1.1.2.2 Patron-clientelism as civil society

Clientelism as civil society seeks to challenge the Weberian view of the state as a symbol of collective action, where it represents the public's interest instead of a particular group (Anciano, 2017; Dawson, 2014; Formoso, 2014). Scholarship, has until recently, begun disputing the negative connotations attached to patron-clientist relationships. Instead, these relationships are crucial in fulfilling democratic tasks such as holding local government accountable and bridging the inequality gap between urban elites and marginalised communities (Dawson, 2014; D'alenco *et al.*, 2018; McFarlane *et al.*, 2014; Mitlin, 2014).

Civil society as a concept and practice can be traced to ancient Romanian and Athenian times, but it became popularised as a result of the democratic deficit in the late 1980s (Beck, 2003). Therefore, it has become a vital platform and actor in generating mechanisms for accountability and transparency for local state institutions in both developed and developing countries (Colabella, 2010; Khan, 1998).

Whilst civil society can work towards improving access for underprivileged groups, there is a danger in defining civil society as a collective group that has a shared interest in representing their society (Lorch, 2017; Theocharis *et al.*, 2017). Such conceptualisations are elaborated by Khan (1998), who disputes that the modern structure of civil society does not reflect and represent the totality of society's interests, more especially in developing countries where organisations often speak

to the interests of the middle class or political affiliations. Formoso (2014) also contends that civil societies based on patron-clientelism work against liberal democratic processes because they perform the role of broker, that is, they faciliate clientist relationships between urban elites and poor communities. Meaningly, selected individuals or communities will be able to access informal settlement upgrading, service and infrastructural development or public employment opportunities.

Where [rural and urban] communities are in dire need of poverty alleviation projects such as employment or infrastructure, the degree to which the local elite influences and controls them is considerable. Thus, a key challenge for scholars is whether a civil society organisation can participate in democratic processes while simultaneously being an active participant and faciltator of patron-clientism (Beck, 2003; Dawson, 2014; Formoso, 2014; Khan, 1998).

In the Western Cape, the Peace and Mediation Forum (PMF), a local civil society organisation formed to represent the housing interests of Hangberg informal settlement, is well-known as a participant and faciliator of clientelist activities between the local government and the informal settlement (Anciano, 2017). The dynamic exchanges between the Hangberg informal settlement, PMF and the Democratic Alliance-elected local government is depicted as follows:

> The Forum is actually the only recognised legal entity within the community that has a right to liaise with City, SANParks and Province. So whenever there are jobs or anything that is coming out regarding the community, the Hangberg community only have to speak to the PMF…If the PMF behaves as the state wishes it will receive patronage, which its leaders can dispense to individual clients. In return the City will deliver, for example, housing. (Anciano, 2017:9).

2.1.1.3 Informality as a new way of thinking

The subject of informality primarily draws critical attention from the social and economic sciences. However, given its deepening complexity, interdisciplinarity has become crucial to not only understanding the social and political realities at play in

informal spaces, but addressing the top down technocraticism inherent in spatial and urban planning (Cabalfin, 2014; Varley, 2013). For urbanist scholar, Terry Cruz (2009), the Built Environment is one critical field that is absent from urban informality and planning studies. He argues:

> We are absent from the debate, in shaping a political will to shape the city…It really has to do with our absence from the politics and economic development…architects have remained powerless, subordinated to the visionless environments defined by the bottom-line urbanism of the developer's spreadsheet, making architecture simply a way of camouflaging corporate economic and political power… (Cruz, 2009).

Thus, the institutions of urban development have received widespread criticism for their technocratic top-down style which seldom allows for a thorough interrogation of urban informality and the daily realities of inhabitants (Lemarchand, 1991; McFarlane *et al.*, 2014; Okurut *et al.*, 2015).

Huchzermeyer (2003:339) terms this "the state of the art" where the problems and needs of urban poor are dictated by the local technocratic elite who have a limited understanding of informality and poverty. Prior to the 2014 FIFA World Cup, the Brazilian government initiated a massive gentrification policy that saw the demolition of *favelas* as well as the forced relocation of approximately 250 000 people to economically and spatially marginalised areas (Marcuse, 2014; Vogiazides, 2012).

Representation of the formal and informal as dichotomous entities perpetuate views of urban informality as "underground", "hidden", "dysfunctional" or "illicit" processes or structures that impede formal upgrading and beautification initiatives (Davy & Pellissery, 2013; Parthasarathy, 2009; Wade, 2012). However, in developing countries, urban informality has received a renewed interest, especially among social architects and urbanists who value informal settlements as rich resources for advancing positive urban interventions (Grundström, 2005; Spain, 2014; Todes *et al.*, 2008).

Cruz and Forman (2015) have vehemently advocated the need to abandon the narrow view that social inequity is only measurable by quantitative methods. Instead, urban interventions need to move beyond specialist knowledge and conventional research methods and facilitate new understandings of urban informality (ibid). The view is built on the premise that informal settlements have something to offer. Thus, a key starting point is bridging the knowledge gap between institutions of urban planning and communities within informal settlements (AlSayyad, 2004; Banks, 2015).

In McFarlane's *et al.* (2014) study on the production and maintenance of informal urban sanitation in Mumbai, the authors identified **four** key informal urban sanitation processes: patronage, self-managed processes, solidarity and exclusion and open defecation. In Mumbai's informal settlements, where service delivery and infrasturctural development are unattainable through the state or patronage, communities often adopt self-managed strategies. The authors observed makeshift toilets made out of cloth, timber, iron sheets and other salvaged materials. Moreover, where one makeshift toilet was shared by 15 to 25 households, each family was required to either contribute labour or between Rs 100 and Rs 200 (approximately R22 and R43) toward construction, maintenance, security locks or repairs (ibid). However, in this chapter, the author exclusively draws on self-managed strategies to better understand the production and maintenance informal service provision.

2.1.1.3.1 Urban informality as co-production?

Self-management processes observed in Mumbai are underpinned by co-productionism. Co-production contends that informal settlement dwellers can offer information-rich expertise regarding the social issues at hand, that is, service delivery gaps and the politics that underpin these issues (Ambole, 2016; Koster & Nuijten, 2016). Thus, the active participation of informal settlement dwellers, [or user involvement], is key to creating and improving knowledge and services that have significant social relevance (Albrechts, 2013; Mara, 2012). More often than not, co-production and participatory development are used interchangeably, but these two concepts are distinct. A few definitions of co-production include:

> A relationship where professionals and citizens share power to plan and deliver support together, recognising that both have vital contributions to make inorder to improve quality of life for people and communities (Slay & Stephens, 2013:3).

> Co-production is not just a word, it's not just a concept, it is a meeting of minds coming together to find a shared solution. In practice, it involves people who use services being consulted, included and working together from the start to the end of any project that affects them (Think Local Act Personal (TLAP), 2018).

> There is a difference between co-production and participation: participation means being consulted while co-production means being equal partners and co-creators (Social Care Institute for Excellence (SCIE), 2013).

Although there are various understandings of co-production, SCIE (2013) contends that definitional language is important. Literature shows that in defining and distinguishing co-production from participatory development, the emerging and key themes are joint-power, joint decision-making and equal sharing and involvement in project development from start to finish (Ambole, 2016; McGranahan, 2014; Mitlin, 2008).

The concept of co-production thus stands in stark contrast to expert-led, [and often top-down], development interventions where informal settlement dwellers are sidelined either because of power asymmetries, resources or limited formal education (Albrechts, 2013; Mitlin, 2008). Whilst co-production speaks to bottom-up agency, it goes beyond the "…creative intelligence and entrepreneurship of informal urban communities…" (Cruz & Forman, 2015:211). There is a danger in romanticising urban informality, especially in developing coutries as informal urban areas are perceived as sites of resillience and adaptability, thus legitimising non-intervention on the part of local governments (D'alenco *et al.*, 2018).

Such views dominated De Soto's (1989) earlier work where he portrayed informal urban dwellers as "economic heroes", who managed to adapt and thrive despite the

state's domineering presence in the market. De Soto's intepretation of urban informality is founded within the legalist approach. It advocates for poverty alleviation by the economic remodelling of productivity and efficiency, more specifically, microfinance interventions or formalising informal settlements by issuing out property titles (AlSayyad, 2004; Cruz & Forman, 2015; Davy & Pellissery, 2013).

2.2 The Right to the City

Lefebvre (1996) conceptualised the right to the city against the backdrop of the 1968 working class and student uprisings in Paris. Not only was he concerned with the way French society was becoming increasingly entrenched in mass consumerism and high modernism, but he also witnessed the subjugation and destruction of rural life and traditional peasant economies (Alisdairi, 2014; Gollin *et al*., 2013; Lefebvre, 1996).

The right to the city therefore came to the fore as a framework for promoting spatial justice and as a criticizer of neoliberal urbanism (Cutts, 2014; Huchzermeyer, 2014). According to Lefebvre (1996), the economy, culture, education, housing, politics, tourism and urbanisation function towards profit generation. Lefebvre's (1968) scathing critique of the modern city resonates with Scott's (1998) description of the "death of the city" whereby one's participation, [re]production and enjoyment of the city is de-legitimised by structures of capitalism and state control. Purcell (2013:151) emphasises this concept by saying that:

> The right to the city is one vital element of this movement toward the urban. That movement is set in motion when inhabitants decide to rise up and reclaim space in the city, when they assert use value over exchange value, encounter over consumption, interaction over segregation, free activity and play over work. As they appropriate space, as they develop the ability to manage the city for themselves, they give shape to the urban.

For Marcuse (2014:5), the city is not the physical structure and its resources, but it is a "synecdoche for urban society" - a society that ceases to be governed by

consumerism and neoliberal ideology. The most significant ideas in Lefebvre's right to the city framework are; the social production of space and the everyday. These concepts shed light on how designers, urban planners and citizens conceive urban space as well as the destructive forms of capital accumulation and urbanisation (Jeanne, 2016; Lefebvre, 1996).

2.2.1 The Social Production of Space

The Social Production of Space argument contends that space is fundamentally social because it is produced by people (Harvey, 1994). Space consists of several and a complex interpretation relating to its meaning and use, but it ultimately affects social processes such as power relations, the everyday, legal frameworks and spatial politics (Alisdairi, 2014; Lefebvre & Levich, 1987; Purcell, 2013). For instance, during Apartheid, the government used various legal frameworks such as the Group Areas Act 41 of 1950 to assign and categorise the use and value of space based on race (Massey, 2013). As a result, the physical and legal impositions made on black urban communities negatively restructured their social and economic relations, consequences that are still being felt today (Huchzermeyer, 2014; Strauss, 2017).

In *The Production of Space*, Lefebvre (1991) seeks to connect the theories of space, as interpreted by mathematicians, philosophers and linguists, to the social needs of urban inhabitants. Elaborating on this approach, Harvey's (2004) integration of Marxism within the Production of Space argument explores how capitalism determines the control, use and distribution of urban space.

The allocation of space is often class-based as wealthier groups are assigned to spaces of abundance, whereas the poor are confined to overcrowded and hidden spaces (Harvey, 2008; Speer, 2015; Strauss, 2017). Contemporary manifestations of the social production of space are observable in sub-Saharan Africa and Southeast Asia. Urbanisation trends are marked by uneven development and class-based social planning practices that proliferate high-density urban areas and informal settlements (Elden, 2007; Hunter, 2006). The following sub-section outlines

Lefebvre's conceptualisation of space, which consists of perceived, conceived and lived space.

2.2.1.1 Perceived, conceived and lived spaces

Lefebvre's dialectical method of how space is conceived, perceived and lived highlights how spatiality reproduces or resists social exclusion (Lelandais, 2014). Every mode of production produces its own space (Lefebvre, 1991; 1996), more especially in the last 50 years, neoliberalism has significantly restructured global cities and led to the mass displacement of those who cannot participate in the market or afford housing (Alisdairi, 2014; Haynes *et al.*, 2011).

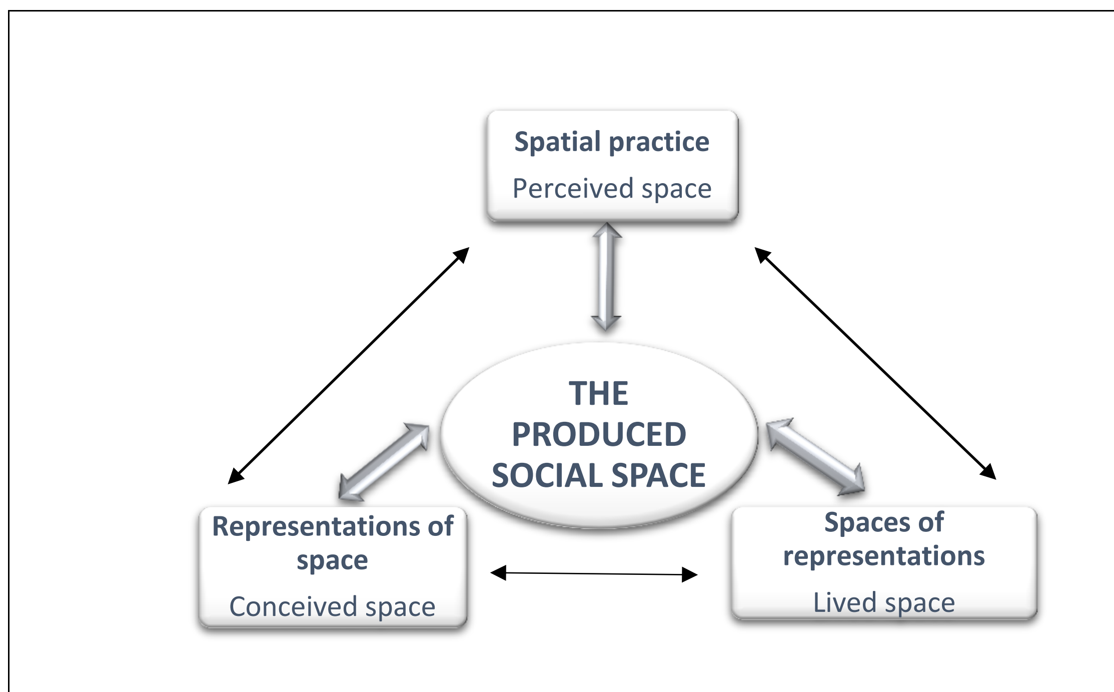
Conceived spaces – Lefebvre (1991:222) defines conceived space as "…a place for the practices of social and political power…spaces that are designed to manipulate those who exist within them." Conceived space is the dominant feature of space and because it is usually quantified, it reduces the *real* nature of space (Thompson *et al.,* 2014). These spaces can be linked to the production of knowledge where models and theories are dominated and produced by scientific experts, most notably, mathematicians, designers, geographers and scientists (Purcell, 2013).

Perceived spaces – respond to spatial practices where daily individual and communal activities reproduce social life in physical environments (Speer, 2015). These everyday practices take physical form and can be grasped by the natural senses: sight, smell, touch, sound and taste (Strauss, 2017).

Lived spaces – correspond to spaces of representation and expose the social practices of everyday life as experienced by inhabitants (O'Loghlen, 2015). Lived spaces can offer transformative platforms for the urban poor to contest and resist the dominance of the state on the social production of space (Stuart, 2007).

The relationship between the forms of space within Lefebvre's three part dialect is illustrated in the Figure 2.1 below:

Figure 2.1: Lefebvre's three part dialect



Adapted from: Elden (2007)

The dialectic approach, as illustrated above, seeks to uncover how the elements of Lefebvre's spatial triad relate to each other. Conceived spaces are the dominant representations of space in society as they encompass the academic and official plans, zoning codes and design guides produced and used by technocrats, municipal officials and architects (Gamsby, 2012; Lefebvre, 1996). Perceived spaces speak to people's everyday routines and activities within the physical environment (Elden, 2007). Daily routines typically conform to the official representations of space, that is, the intellectualised and technical conceptions of urban space (ibid).

Informal settlements in South Africa are examples of lived spaces, where the urban poor dwellers engage in creative activities that advance different forms of spatial

organisation (Leary-Owhin, 2012; Meiring, 2017). The three-part dialectic has proved immensely beneficial to this study by enhancing the understanding of the different ways the South African government views and responds to formal housing development as well as the upgrading of informal settlements (Huchzermeyer, 2004; Department of Housing, 1994; Strauss, 2017).

According to Strauss (2017:75), lived space, "…represents a complex merger between perceived and conceived space, which illustrates that social relations…are intertwined in real life." These official representations impose meanings onto urban space, such as how it ought to be used and by whom (Schmid, 2008; Zhang, 2006). Lived space challenges the dominant representations of space which can be observed by how informal communities fundamentally seek to challenge and resist the dominant representations of space through their artistry and creative intelligence (Cruz & Forman, 2015; Lefebvre, 1991).

2.2.2 The Everyday

The *Critique of Everyday Life* (2014) is considered Lefebvre's most significant contribution to Marxism as it elaborates on the prevalence of alienation inherent in daily life in contemporary capitalist societies (Speer, 2015). It constitutes the space in which all life is transformed into a space of instant gratification, consumption and hyper individualism (Gamsby, 2012). Whilst the term '*everyday*' has received several analyses (Goonewardena, 2008; Ingin, 2011; Kipfer, 2008; Thompson *et al*., 2014), this study adopted Lefebvre and Levich's (1987:9) definition of the *Everyday* as:

> …a product, the most general of products in an era where production engenders consumption, and where consumption is manipulated by producers: not by "workers," but by the managers and owners of the means of production (intellectual, instrumental, scientific).

In simpler terms, the *Everyday* is interpreted as life after work is removed, that is, leisure, housing, education, environment, clothing and neighbourhoods (Alisdairi, 2014; Elden, 2004; Harvey, 2008; Leary-Owhin, 2012). Harvey (2008) and Purcell

(2013) further critique leisure or “escapism” under capitalism where inhabitants are disillusioned into believing that it provides an escape from the alienation inherent in their daily routines and practices. Gamsby (2012:143) argues:

> While there are those who assume escapism, or ‘getting away from it all’, is far away from being a form of alienation…there is an alienation through escapism, and a different one through non-escapism. Distractions are constantly sought out, and, in turn, distractions constantly seek out. Distractions are important elements to escapism. They allow one the opportunity to get away from ‘it’.

Urban dwellers are therefore isolated from their true desires and deprived from establishing deep and meaningful social connections (Strauss, 2017; Vitale, 2017). Alienation seeks to prevent inhabitants from realising the strength of their shared power in reshaping the city (Harvey, 1994). This state of disillusionment, popularly known as a “false consciousness” occurs when the proletariat fails to discern and reconcile its social and/or economic class interests within the wider mode of production (Goonewardena, 2008; Purcell, 2013; Schmid, 2008).

2.2.3 Contemporary understandings of the right to the city

Lefebvre and contemporary scholars adopt vastly different ideas, but there is a shared understanding that the user of urban space is the central figure in reclaiming urban space. Contemporary interpretations of the “right to the city” are premised on neoliberal democratic principles where policymakers ensure that the social needs of urban poor co-exist with the interests of the ruling elite (Bhagat, 2017; Strauss, 2017). Neoliberal urban policies, particularly land financialisation and privatisation policies formed part of development reforms implemented by the IMF in the 1980s to stimulate economic growth in the Global South (Strauss, 2017). The commodification of the city has been to the detriment of the urban poor.

Interestingly, urban studies have begun learning from the Social Production of Human Habitat concept developed in Latin America. This paradigm has been widely

used to understand and critically engage with existing and emerging urbanisation patterns. At the core of the social production of habitat, is coproduction which was discussed in the preceding chapter. It is rather difficult to offer a universal definition of the Social Production of Human Habitat, but the concept refers to the processes by which individuals or communities actively generate new living spaces and urban cultures. The United Cities and Local Government (UCLG) (2018) offers an inclusive and critical definition of the concept:

> Social production of habitat is the process by which communities plan, build and manage their urban environment, including housing units, local infrastructure and common spaces. This process is generally carried out in collaboration with technical support actors and requires the establishment of (conflictual or consensual) relationships with public authorities.

There has been some progress in incorporating the "right to the city" agenda at both national and global level (Middleton, 2016). The right to the city has been an underlying theme for the United Nations. For example, the New Urban Agenda (NUA) and World Urban Forum (WUF) conferences have emphasized the role of national governments in making urban spaces and resources accessible to vulnerable groups (UN-Habitat, 2016; UN-Habitat, 2017a). The overarching theme, "Cities 2030: Cities for All", is underpinned by the right to the city principle and speaks to inclusive urbanisation. The contemporary definition significantly strays from Lefebvre's original conceptualisation:

> The right to the city is thus defined as the right of all inhabitants present and future, to occupy, use and produce just, inclusive and sustainable cities, defined as a common good essential to the quality of life. The right to the city further implies responsibilities on governments and people to claim, defend, and promote this right. (UN-Habitat, 2017b:26).

Within the Sustainable Development Goals (SDGs), the right to the city also emerges in several priority areas – such as gender equality, clean water and sanitation, decent work and economic growth, transforming cities and communities into sustainable, inclusive and resilient areas, responsible consumption and production (United Nations, 2015; Middleton, 2016).

However, grassroots activists and organisations recognise that urban poor are well knowledgeable of their needs as they contend with informality on a daily basis (Huchzermeyer, 2003; Purcell, 2013; Tshikotshi, 2009). The creation of the Abahlali baseMjondolo shack dwellers movement in South Africa details how the “right to the city” is gaining prominence, especially amongst the urban poor (Huchzermeyer, 2014). This movement emerged out of the realisation that the post-Apartheid state is perpetuating the historical structures and institutions that inhibit the urban poor from accessing land, formal housing and basic services (Abahlali baseMjondolo, 2018).

The above highlights how the contemporary right to the city has been understood from a top-down and bottom-up perspective. This study makes note of “upward trickling”, an approach proposed by Cruz and Forman (2015). It consists of “…bottom-up urban and regulatory alterations…with enough resolution and assurance to trickle up to transform top down institutional structures…” (Cruz & Forman, 2015). Therefore, intervention projects in informal urban areas should involve an interface and active engagement between the state and the informal communities.

2.2.4 Women’s right to the city

The gendered city varies across political contexts, geographies and cultural norms, but it remains highly suited to the needs and interests of men (Grundström, 2006). In Western liberal thought, the public and private spaces are understood as dichotomous entities (ibid). The latter is commonly associated with politics, economy and masculinity whereas the former is associated with reproduction, domesticity and femininity (Spain, 2012; Waerp, 2015). The private and public have been instrumental in understanding gendered power relations and how they manifest sexual and domestic violence against women (Bhagat, 2017).

However, concepts that are commonly regarded as binary to one another reveal the opposite. Contemporary urbanisation trends have reshaped the understanding of

private and public spaces as interconnected and mutually reinforcing entities (Falü, 2014, Whitzman, 2013). The result of their mutually reinforcing relationship produces specific gendered power relations (ibid). These relations manifest themselves in urban informal contexts where the relationship between gender and urban space is often contentious (Hirai *et al*., 2016).

Urban informality studies reveal how informal living enables women to become independent in their personal, social and economic development and empowers them to participate and influence informal politics (Falü, 2014; Hirai *et al*., 2016). On the other hand, Syagga's *et al*. (2017) study of men living in Nairobi's informal settlements revealed that their masculinity was constantly questioned either by their family members or by themselves because of their failure to provide better opportunities for their families, such as formal housing.

However, because informal settlements lack public and private sector investment, basic service provision is either non-existent or limited. Women and young girls are the bearers of water and sanitation because they take on the burden of fetching water and cleaning sanitation facilities and coping with their inadequacy (Luthi *et al*., 2010; WaterAid International, 2019). In such spaces, women and young girls are at an increased risk of experiencing sexual violence because the prevailing values and norms have socialised "appropriate" mannerisms to men and women (Chhetri, 2015; Whitzman, 2013). Women's presence in informal spaces is almost seen as illegal or opposing masculinity thereby justifying violence as a tool of control (Middleton, 2016).

The right to the city provides a critical lens for understanding the failure of urban policy to recognise the role of the gendered city in diminishing women's sense of inclusion and belonging. According to Purcell (2014:148)

> …each time a social group…refuses to accept passively its conditions of existence, of life, or of survival, each time such a group forces itself not only to understand but to master its own conditions of existence, autogestion is occurring.

The *#IWillGoOut* movement has emerged as a global awakening and retaliation against the high levels of sexual violence in India's cities by increasing women's visibility in the public, protesting at night and shaming perpetrators on social media. For Lefebvre, this awakening or new consciousness goes beyond looking to the state as a facilitator of safety, equality and inclusion.

2.3 Chapter Summary

This study's analytical framework is drawn from different concepts which detail the different perspectives around urban informality. These varying concepts revealed that urban informality is a complex phenomemon, moreso in today's political and socio-economic climate. Informality embodies diverse activities and processes. Of particular note, this chapter highlighted how in the midst of limited state support, people in the informal sector develop relationships and invent coping strategies inorder to survive in their environment. However, it is not sufficient to view informal urban dwellers as being able to creatively respond to exclusionary market forces, new emergent patterns of re-segregation and a complex urban culture. Simply put, bottom-up agency is not enough.

This study's conceptual framework is situated within Lefebvre's right to the city. It captures contemporary urbanisation as a class phenomenon that emerges from concentrations of surplus wealth. In the right to the city paradigm, urban space is viewed as a commodity wherein the daily practices and routines are embedded in mass consumerism, hyper-individualism, production of knowledge and the means of production. For peri-urban communities, the right to the city is diminished because they are alienated from the city's resources. Alienation is typified by isolated and dehumanised social practices that are a result of living and working within contemporary capitalist systems of production. On the other hand, contemporary

interpretations of the right to the city offers a less threatening form of the right to the city because it does not seek to subvert capitalist interests.

The study is also rooted in understanding that although the gendered city varies across political contexts, geographies and cultural norms, it remains highly suited to the needs and interests of men. The private and public have been instrumental in understanding the development of gender power relations, particularly how gendered inequalities are produced, which, in turn, translate to gender-based violence and gender discrimination.

CHAPTER THREE

METHODOLOGY

3 Introduction

The study was motivated by the realisation that women and young girls bear the burden of commonly shared sanitary facilities since the onus is on them to modify their behaviour when shared sanitation facilities become defective. The study investigates how the quality and acceptability of shared sanitation can be improved in Phomolong informal settlement. It was guided by the main question: How does gender shape how men and women access, experience manage shared sanitation on a daily basis? Thus, this chapter presents the methodological approach that was used to provide answers to the research questions identified in Chapter 1.

The chapter begins by introducing the philosophical underpinning of this study. Philosophy was one of the foundational starting points of this study because it formed the beliefs and theories that shaped the direction of the study. The adopted philosophy advertently determined the research design. The study is qualitative in nature because it seeks to understand social issues and how they influence lived experiences and perceptions. This study's qualitative design entailed the manner in which data was generated, more specifically, data collection methods at macro and micro level and the procedure for data analysis. The chapter concludes by discussing the ethical considerations that guided the study and the challenges that were encountered during data collection.

3.1 Philosophical underpinnings

A researcher's rationale for adopting a specific research design is informed by certain philosophical underpinnings or foundations. These philosophies shape the methodological framework and the methods used in order to understand the social world (Neuman, 2014). This study was influenced by the interpretivist paradigm. A paradigm is a framework for viewing the world as well as understanding human experience. It includes basic assumptions, beliefs and values, research methods and

standards for what constitutes quality research (Creswell, 2013). The interpretivist ideology contends that social reality is relative and subject to multiple interpretations and meanings (Vosloo, 2014).

This approach dictates that a researcher has to view social reality through the perceptions and experiences of the participants because his/her knowledge of the subject matter is limited or insufficient (Neuman, 2014). Interpretivism enabled the researcher to uncover how social issues such as gender power relations, tenure and politics interact and shape the use and management of shared sanitation facilities in Phomolong. Thus, it enabled the researcher to construct and interpret sanitation processes based on the information that was gathered.

3.2 Research Design

According to Ragin (1994:191), a research design is "…a plan for collecting and analysing evidence that will make it possible for the investigator to answer whatever questions he or she has posed." A coherent design deals extensively with the minute details of data collection methods and data analysis procedures as guided by the nature of the study. This study adopted a qualitative research design due to the explorative nature of the study. According to Kelle (2001:103):

> Although qualitative data may also relate to phenomena on a macro societal level, their specific strength lies in their ability to lift the veil on social micro processes and to make visible hitherto unknown cultural phenomena.

An important objective for this study was to seek a deeper understanding of the perceptions and lived experiences of men and women and their access to shared sanitation. Thus, a qualitative design enabled the researcher to observe and examine behaviours, attitudes and practices in a "socially meaningful" manner by exploring how people understand their physical environment (urban informality) and how it interacts with sanitation and gender (Neuman, 2011:175).

3.3 Research Techniques

For the purposes of this study, the data collection process was divided into two levels of analysis: the macro and micro level. At the *macro level*, the study employed two research techniques: 1) review of key literature and; 2) targeted interviews with key informants and at the *micro level*, a case study. The macro level entails the institutional arrangements and national policies and practices and how they affect sanitation processes in informal settlements.

The micro level considers the gendered division of sanitation activities and the existing power dynamics between households as they shape sanitation processes within the community. The linkages drawn between the macro and micro levels uncover how sanitation theories and practices at national level interact with sanitation processes in informal settlements and the wider implications they have on state-society relations and citizenship (Liao, 2011; McFarlane & Silver, 2017).

3.3.1 Macro-level research

3.3.1.1 Review of key literature

The study's approach to literature focused on three broad areas: urban informality, service delivery and gender. The study conducted a review of previous research articles and policy documents on informal urban sanitation and gender in South Africa to understand the policy context of sanitation activities in informal settlements (Bowen, 2009). These included academic articles, commissioned research reports, government publications such as legislation, bylaws on informal settlements, white papers, national sanitation policies, regulation and strategy papers, and when necessary, media statements and online media articles.

Sanitation delivery in informal settlements is stipulated in several policy documents, but mainly the 2016 National Sanitation Policy. However, certain policy weaknesses or gaps were uncovered that undermine the planning and implementation of basic sanitation provision. These gaps relate to the preoccupation with supply-driven technical solutions or technologies that limit sanitation choices for users, the

ambiguity of Free Basic Sanitation Services, the lack of clarity on what constitutes minimum sanitation standards and the skirting of “sanitation software” issues such as gender and safe spaces, community and gender power dynamics.

The research by McFarlane and Silver (2018) on the networked problem of sanitation in informal settlements was particularly beneficial to the study. The authors illustrate that sanitation provision should be examined in the wider context of land, tenure security and housing, gender and space, food and nutrition, co-production and environmental integrity (ibid). Moreover, because informal urban sanitation issues in South Africa are a result of the re-drawing of the urban landscape during segregation and apartheid, sanitation is embedded in the wider context of socio-spatial injustice. The contribution of McFarlane and Silver (2018) was complemented by material from key legislation that oversees and regulates sanitation provision to informal settlements.

Legislation included the; Compulsory National Standards (promulgated in the Water Services Act), Constitution of South Africa (Act 108 of 1996), Housing Act of 1997, Free Basic Implementation Strategy, the Municipal Systems Act, (Act No. 32 of 2000), the 2003 Strategic Framework for Water Services (SFWS) and the Water Services Act of 1997. These documents were crucial in understanding the relationship between the three levels of government in terms of sanitation policy and practice. They shed light into the regulation of local municipalities so that they adhere to national sanitation standards and objectives.

For example, the SFWS focuses on the national government’s constitutional responsibility to support, strengthen and regulate local government in its fulfilment of its municipal duties (DWAF, 2003). Included, is the FBSan provision, but the challenge with this policy is that it depends on the revenue base of the municipality and capacity to meet the nationally determined target and practically address the specific needs of the community at the lowest cost possible (DWS, 2012). The Water

Services Act contains the rules and manner in which municipalities should provide sanitation services based on national standards and objectives (RSA, 1997).

3.3.1.2 Key informant interviews

The key informant technique is especially useful in conducting qualitative research in development settings and provides specialist information that cannot be obtained using other methods such as a review of literature (Kumar, 1989). In this study, key informants offered expert knowledge on disability and gender-related sanitation issues, spatial and sewer planning, and sanitation policy issues. Moreover, most of the key informants were employed in key government departments and provided insight into certain conditions and internal failings that undermine sustainable sanitation policy and practice.

The key informants were selected and interviewed based on their availability, willingness, experience and knowledge of sanitation related issues in informal settlements. Targeted interviews were conducted with four key informants who occupy positions as: (1) a gender specialist in a government department, (2) a planning and engineering consultant (3) a sanitation policy specialist and (4) a gender specialist in Abahlali baseMjondolo.

Because the gender specialists came from opposite sides of the spectrum, i.e. state and civil society, it provided interesting insights into how top-down and bottom-up perspectives understand informal urban sanitation. More specifically, it enlightened the study on how these differing perspectives analyse sanitation access for women, young girls and people with disabilities. The planning consultant provided information regarding spatial and topography issues and the challenges of providing sewerage-based sanitation services in informal settlements from an engineering perspective. The sanitation consultant detailed the development of South Africa’s sanitation policy since 1994, including milestones and weaknesses. Each interview was conducted face to face and lasted approximately 45 minutes.

The researcher conducted semi structured interviews which allowed some flexibility in changing the topical trajectories during the interview in order to probe a new and emerging idea. With the aid of an interview guide, the researcher was able to steer the dialogue toward the topics related to the study (Rowley, 2012). The interview guide consisted of questions related to the sanitation approach towards informal settlements at the national and local policy levels. An audio recording device was used in each interview after prior permission was granted. Recording the interviews was very helpful because it enabled the researcher to focus on the dialogue and actively engage with the interviewees. However, when necessary, the researcher transcribed noteworthy ideas that were raised during the interviews. Each informant was assured that the recordings were only accessible to the researcher and were safely stored on an external hard-drive and online backup drive.

3.3.2 Micro level research

3.3.2.1 Case study

A case study of Phomolong informal settlement was chosen. Phomolong is one of the six constituent settlements of Mshongo or Mshongoville informal settlement as illustrated in Figure 3.1. It is located on the periphery of Atteridgeville, which falls under the jurisdiction of the City of Tshwane. Mshongo's existence dates back to 1991 and is well known for manifesting violent episodes, more especially against women and young girls (Monson, 2015). These include the deaths of a young girl who was killed and dumped in a pit toilet (Tlhabye, 2017) and that of a pregnant woman who was set alight by her partner whilst she was still in her shack (Shange, 2017).

The case study was concerned with observing and exploring the everyday shared sanitation realities and lived experiences of men and women in Phomolong informal settlement. The selection of the case study was guided by the assumption that it reflected the national situation of women in informal settlements and that the study could draw insights from it, informing it on circumstances of women in informal settings.

A case study technique allows a researcher to observe and examine patterns at the micro level, which according to Sage (2017:17), "…form the basic foundation of all social groups and organizations..." The case study approach eliminated the dependency on a single data collection technique and allowed the use of open-ended interviews and observations. This method of inquiry was especially beneficial in providing an in-depth and context-specific understanding of the roles of men and women in sanitation activities and their wider implications on participation and control of sanitation resources between and within households (Zainal, 2007). Household visits were made between October and November 2018 and in high frequency because the language barrier hindered the researcher's entry and acceptance into the community. Thus, as the frequency of the researcher's visits increased, households became increasingly familiar with her presence.

Figure 3.1: Map of Mshongo informal settlement

Source: Monson (2016)

3.3.2.1.1 Transect walks

The researcher carried out transect walks over two days with the aid of a research assistant who is fluent in local languages and a community member of Mshongo.

During those two days, the researcher engaged informally with a few residents to gain a general understanding of the sanitation situation in the area. Interestingly, it emerged that sanitation facilities in Mshongo are self-built and, more importantly, some residents “own” the land which they reside on. This discovery became the underlying principle for the study because it allowed the researcher to observe and analyse perceived notions of ownership and how they influenced sanitation sharing dynamics between households.

3.3.2.1.2 Sampling

The study adopted a non-probability purposive sampling strategy which was influenced by the interpretative approach. According to Luborsky and Rubinstein (1995), this sampling strategy allows for the case to be chosen based on a specific context. Hence, in this study, it allowed the researcher to capture various practices relating to shared sanitation facilities. Based on the researcher’s judgement and knowledge [as informed by literature on informal urban sanitation] nine South African households that share sanitation facilities were chosen (Mouton, 2002). The researcher specifically used the maximum variation sampling technique to examine how households that are purposefully different from each other perceive and experience shared sanitation (Palinkas *et al.*, 2015). Participants were selected based on varied lengths of residence, number of households sharing the facility, monthly household income and the type of household. In addition, they were also chosen based on their willingness and availability.

3.3.2.1.3 Direct observations

Observational data can be used to generate questions to explore in detail during the interview process as well as supplement research findings (Kawulich, 2005). Direct observation or non-participant observation is inherently quantitative because they measure the frequency of behaviours, physical attributes of a particular scene and the social composition in a particular scene (Creswell, 2007).

As outlined by the Water Institute (2015), when conducting water, sanitation and hygiene (WASH) research, the researcher relies heavily on his/her physical senses to make note of the site, smells and sounds. In this study, observations were made in regard to the location of the sanitation facility and its physical state in terms of privacy, security and cleanliness (see Figure 3.2), water sources and refuse dumping sites.

Figure 3.2: A pit latrine in Phomolong

Source: Author (2018)

3.3.2.1.4 Interviews

Much of qualitative research is interview based because it seeks to understand people's lives and experiences as they are lived (Doody & Noonan, 2013). The researcher conducted unstructured interviews which, according to Zhang and Wildemuth (2009), are suitable when carrying out long term field research because they allow each participant to freely express themselves in their own way and pace. The flexibility of this interview technique allowed the questions to develop during the interview based on what the participants said (Britten, 1995).

This interview technique minimalised the interviewee's role and control as a researcher in the sense that it enabled them to "…follow the direction of the

participants' storytelling…" and in turn broadened their understanding of how the wider process of informality influences and shapes identity, perceptions and daily activities (Doody & Noonan, 2013:3). Thus, unstructured interviews aligned with the goal of this interpretative-oriented study in that they allowed the researcher to "…see the world through the eyes of the actors doing the acting" (Thompson, 2015).

The interview process was not entirely devoid of structure; instead, an interview guide was used for control purposes (Zhang & Wildemuth, 2016). It comprised of themes that were informed by the research problem and objectives rather than specific questions. The interviews varied in length, approximately between 45 and 90 minutes. When the occasion arose, the research assistant facilitated the interview process and the importance of allowing the participant to lead the conversation was emphasised. However, in some cases, participants were able to converse in English and the researcher was able to take on a more direct and active role.

It is worth mentioning that some of the female participants were home most times because they are informally employed or unemployed and thus spend most of their day caring for their children. The researcher followed Ellsberg and Heise's (2005) recommendation when conducting interviews with female participants who have young children. They propose that a researcher may offer sweets to the children as a distraction tool, with the permission of the mothers, in order to ease the interview process.

3.4 Data analysis

Data obtained was transcribed after each field visit and analysed using the thematic content analysis which is commonly used in qualitative research to derive, analyse and report patterns and meanings within data (Thomas, 2010). I began by reading and re-reading the transcripts to obtain a general sense of the entire data. An open coding system was especially useful because it allowed the researcher to jot down notes and ideas in the margins as they came to mind. According to Braun and Clarke (2006), the process of coding allows data to be analysed through categories

and themes by disaggregating the raw data into smaller manageable sizes to enable categorisation and drawing comparisons.

The open coding system allowed the researcher to label data by assigning a heading or keyword that described that specific category. Multiple categories emerged at this stage because codes were developed while simultaneously reading through the data. Thereafter, axial coding was used to reorganise data by modifying existing categories more precisely and establishing connections and relationships between them. Finally, selective coding was used to systematically derive the main themes of the study and identify them with concepts that were discussed in the literature review. The researcher also used raw data in the form of direct quotations to corroborate and supplement the research findings.

The thematic analysis essentially gave meaning to the data by organising it in a way that was relevant to answering the research questions of this study. The three broad themes that emerged were:

1. The development of sanitation policy in South Africa.
2. Phomolong's sanitation experiences and management.
3. Residents' notions of citizenship and inclusion.

3.5 Challenges encountered

This research was not without its share of challenges. Firstly, the researcher intended to interview the councillor about informal urban sanitation in Phomolong. Given his busy schedule, the researcher attempted to interview him telephonically, but was unable to. Alternatively, the researcher managed to interview a community leader, who is in the committee of the ANC Youth League as well as a resident of Phomolong.

As previously discussed, although the researcher had employed a local resident of Phomolong as a research assistant, her entry and language barrier affected

acceptance into the community. Moreover, community members generally distrusted the researcher's presence because they thought she was a state official tracking illegal activities. As a result, the fieldwork was delayed because it was challenging to find households that were comfortable in participating in the study. However, as the researcher increased the frequency of field visits, she became familiar to the community and presenting a student card and proof of registration during the introduction phase alleviated some of the concerns and insecurities held by community members.

Secondly, sanitation issues are generally perceived as a vulgar subject and most people are unwilling to talk about them. Female participants were especially wary in talking about daily processes such as menstruation and defecation in detail. The researcher viewed this limitation as a reflection of the vulgarity often attached to informal urban sanitation issues and the reluctance to fully engage with it at the micro-level and macro-levels.

3.6 Ethical considerations

In any research that involves human subjects, identifying and examining ethical issues is fundamental to upholding the integrity of the study (Babbie & Mouton, 2001). This research was conducted in accordance with the rules and regulations set by the University of Pretoria, Faculty of Humanities Ethics Committee. The researcher adhered to the following ethical considerations: informed consent, voluntary participation, privacy and confidentiality.

The researcher sent a letter of request to the councillor to conduct the case study in Phomolong, detailing the nature of the study, its objectives and data collection techniques (see Appendix 1). Written informed consent was obtained from each participant after the researcher provided a detailed explanation of the research purpose. Before the interviews began, the researcher issued out consent forms for the participants to sign (see Appendix 2 and 3). These letters detailed the purpose of the study, participants' involvement in the research and their right to withdraw their

participation if felt they could not continue. In addition, assurance was given to participants that their involvement in the research was voluntary, meaning they could freely refuse to participate or withdraw at any point in time during the course of the study without any repercussions.

It was anticipated that the participants would have concerns about privacy and confidentiality, given the nature of the study and the presence of a second party. The research assistant was subjected to the same ethical principles and signed a confidentiality agreement to assure participants that the study was concerned about preserving their privacy, self-respect and dignity. In this study, the researcher to the recommendations made by Ellsberg and Heise (2005) when conducting research that deals with gender based violence. Interviews were conducted in complete privacy with only one woman per household and men who were in the same household as women who had been interviewed about experiencing gender based violence whilst using a sanitation facility were excluded.

To ensure that the study did not pose harm to the participants' physical and psychological well-being and their reputation within the community, anonymity was guaranteed by using pseudonyms. Pseudonyms were also extended to the key informants to protect their identities. Furthermore, given the apprehensions surrounding digital recordings, permission was requested from each participant to use an audio device and they were assured that recordings would be only accessed by the researchers. Furthermore, recordings were securely stored on an external hard drive.

3.7 Chapter Summary

This chapter detailed the methodological framework that was used in the study. It described the intricacies of collecting data within an informal environment. The interpretivist philosophy informed the researcher's adoption of a qualitative design. This paradigm enabled the researcher to explore sanitation dynamics in Phomolong from the perspectives of the households. Thus, the perspectives of the households

shed light on how social issues such as gender power relations, tenure and politics interact and shape the use and management of shared sanitation facilities.

This chapter also described how conducting macro and micro levels of analyses revealed how top-down processes, that is, state sanitation policies influence informal urban sanitation in Phomolong. A non-probability purposive sampling technique was used because it afforded the researcher to purposefully select households that offered information-rich data. In terms of specific data collection tools, the researcher conducted semi-structured face-to-face interviews with key informants and unstructured face-to-face interviews with the participating households. The final sections of the chapter detailed the challenges that emerged during the course of the study as well as the ethical issues that guided the data collection process. The subsequent chapter discusses the themes that emerged from the macro level.

CHAPTER FOUR

THE DEVELOPMENT OF SANITATION POLICY IN SOUTH AFRICA

4 Introduction

This chapter provides a national level analysis of sanitation issues in informal urban settlements in post-apartheid South Africa. The first section is a broad analysis of the historical development of informal urban sanitation in South Africa. It attempts to situate the current state of South Africa's informal urban sanitation within the historical context of urban segregation. Thus, the outbreak of the plague presents an interesting case study for the historical development of informal urban sanitation in South Africa as it initiated the re-drawing of the city's racial and urban landscape (Maylam, 1995; Schreiner *et al.*, 2017).

The last half of the chapter provides a discussion of sanitation reforms after 1994. This section seeks to explore how statecraft regarding sanitation issues has evolved since the transition to democracy. The section further explores the current state of South Africa's gender blind approach in terms of sanitation provision in informal settlements. The chapter concludes by discussing the City of Tshwane's (CoT) approach to informal urban sanitation by specifically looking at the regulatory environment in which it operates and the challenges it has faced in delivering basic sanitation to residents in informal settlements since independence in 1994.

4.1 Pre-1994 sanitation policy and practice

To gain a detailed understanding of contemporary informal urban sanitation issues in post-apartheid South Africa, it is crucial to trace key historical events that produced them. For the purpose of this study, the focus of sanitation policy and practices begins from the "sanitation syndrome" period between 1900 and 1904. This periodisation is strikingly significant because it influenced statecraft during the colonial and apartheid periods by ushering a series of segregationist socio-spatial relations that racialised and commodified urban spaces to ensure the exploitation of the African labour force (Miraftab, 2012). Colonial officials manipulated the public

hysteria and racial prejudices to intensify segregationist socio-spatial practices (McFarlane & Silver, 2017; Tewari, 2009). State power, especially after the Nationalist Party's victory in 1948, was crucial in engaging in large-scale projects of social engineering, which triggered long-lasting systematic dynamics of exclusion and inclusion by ensuring productive assets and resources were controlled, extracted and distributed based on racial lines (water and land) (McFarlane & Silver, 2017; Schreiner *et al*., 2017).

4.1.1 The sanitation syndrome

Urban segregation became closely embedded within the "sanitation syndrome", a concept first advanced by Maynard Swanson (1977), as the racial and moral hysteria that gripped white South Africans in the early 20th century. The spread of the bubonic plague, known by its popular name, the "black death", reached South Africa at the peak of the 1899-1901 Anglo-Boer War, first through Cape Town and eventually other major seaport routes namely, Port Elizabeth, East London and Durban (McFarlane & Silver, 2017).

Authors, Maylam (1995) and Molefi (2001) agree that increased human mobility of refugees and migrant labourers exacerbated the spread of the plague along South Africa's coastlands to its interior, but it was British reinforcements and cargoes coming in from South American ports that brought in the plague (Van Heyningen, 1989). It was unfortunate that the disease was discovered within the African community, as it seemed to confirm the imperative of the sanitation syndrome – the public fears of the threat of black urbanites to white South Africans' health and safety (Tempelhoff, 2017).

4.1.1.1 Responses to bubonic plague by colonial governments

The South African Republic, being a landlocked country, realised that without collaborating with other states, it would be left especially vulnerable to the plague (Maylam, 1995). In 1899, the government held a conference in Pretoria in order to collaborate with its neighbours to address the outbreak. The conference adopted the

models established at the Venice Sanitary Convention and the Capetonian regulations in order to adequately respond to the plague. The reforms included:

- The creation of quarantine stations;
- Quarantining infected ships;
- The formation of an interstate Board of Health to advise and manage issues;
- Obtaining the expertise of a medical practitioner;
- Each country to establish plague centres and bacteriological laboratories and;
- Additional quarantine stations to be created at other seaports namely, Saldanha Bay, Durban and Delagoa Bay, East London or Port St. Johns (Van Heyningen, 1989).

One particularly controversial issue that was addressed related to the spread and likely carriers of the disease (ibid). Under Clause 17, the different heads of state agreed to "…place under proper and sufficient restrictions the moving about of persons likely to contribute to the more rapid spread of the infection…within their territories'' (ibid). Much of the blame was levied against the non-white communities as a result of their living conditions, which were a result of segregationist policies, legislated by the colonial governments (Mears, 2007).

Of special note has been the contribution by Professor W.J. Simpson, a British advisor to the then colonial government, who advanced one of the most racially prejudiced linkages between the plague and non-white communities. He was quoted as saying:

> Next to Bombay, Cape Town is one of the most suitable towns I know for a plague epidemic…there was an extraordinary proportion of ancient and filthy slums, occupied by a heterogeneous population; the Africans were unfit for town life; the poorer coloured people were even dirtier in their habits, while the Malays and Indians possessed the habits of the Asiatic, and the poorer class Portuguese, Italians, Levantines and Jews were almost as filthy as the others (Simpson, 1901:8-9).

The then Cape Town Medical Officer, Barnard Fuller also failed to allay the public fears amongst the white community by writing:

> …these uncontrolled Kafir hordes were at the root of the aggravation of Capetown slumdom brought to light when the plague broke out…[Because of them] it was absolutely impossible to keep the slums of the city in satisfactory condition (City of Cape Town, 1902:172-173).

For Swanson (1977), the use of racial and biological imagery dominated political and medical spheres and served as a metaphor to advance the notion that African bodies were carriers of pollution and infection. The personal experiences and accounts of the Black Death that had swept through Europe were imprinted in the minds of South African white communities who were immersed in European cultural traditions. In Johannesburg especially, the mounting public pressure against municipal officials resulted in the enforcement and upholding of the 1904 relocations after the outbreak of the pneumonic plague (Evans *et al*., 2018; Swanson, 1977)

4.1.1.2 Consequences of the bubonic plague

The words of Professor W.J Simpson and Barnard Fuller echoed in the 1905 Rand Plague Committee Report (RPCR) describing the 1904 pneumonic plague outbreak that claimed 82 of the 113 victims (Evans *et al*., 2018). An airborne form of the bubonic plague with a far higher mortality rate, the pneumonic plague thrives in crowded living conditions as the bacillus is easily transmitted to others by coughing (Popke, 2003).

The plague broke out at the Brickfields/Burgersdorp area in the inner-city of Johannesburg Central also known as the Coolie Location, where as early as the 1860s, former indentured Indian workers established businesses as merchants and traders (Evans *et al*., 2018). For the municipality, the Coolie Location was an eyesore because it became one of the biggest multi-racial slums housing the Indian and African workforce (Maylam, 1995). Thus, it became more justifiable for municipal authorities to use the pneumonic plague as a pretext to enforce segregation.

4.1.2 Land controls in urban areas

In South Africa, socio-economic inequalities emanating from spatial segregation are well documented, moreso in light of the recent land expropriation debates (Massey, 2013; Modise & Mtshiselwa, 2013; Moyo, 2007). Urban controls by colonial governments in Zimbabwe, Botswana and Namibia, sought to ensure the rigid control of African presence in urban areas (Freund, 2007). Urban informality issues, especially in southern Africa, are indicative of the historical structural exclusion of black Africans from spatial planning (Locatelli & Nugent, 2009). The colonial and Apartheid governments legislated laws that had long-lasting effects on contemporary socio-spatial dynamics. These are briefly discussed below:

The Natives Land Act of 1913, which can be attributed to the union of the colonies in 1910, and was the government's first comprehensive policy of racial and spatial segregation (Hamilton, 1987). It was specifically created to confine Africans to reserves or homelands (approximately 8% of the land in the country) as well as prohibiting them from sharecropping, leasing and purchasing land outside these designated areas (Muller, 2013). These developments accounted for the rise of the migrant labour system as men and women sought wage employment in farms and urban areas (Hamilton, 1987).

The Natives Act No 21 of 1923 sought to regulate the presence of Africans in residential urban areas (Van Heyningen, 1989). This piece of legislation enhanced segregationist measures in housing and urban policymaking by enabling local municipalities to establish black townships along the peripheries of white residential and industrial areas (ibid). Additionally, the Act embodied key instruments and institutions relating to strict influx controls (the administration of Pass laws), racialised social services and fiscal segregation (a separate budget for the financial upkeep and development of black townships) (Maylam, 1995).

The Slums Act: Demolition of Slums of 1934 was legislated under the pretext of sanitation and entrenched fundamental changes in conceptualising urban space

(Mears, 2007). The Act gave local municipalities the power to destroy African slum communities in order to create space for housing schemes for the white working class and commercial developments (Parnell, 1988).

The Group Areas Act No 41 of 1950 although implemented when urban segregation was well advanced, the Act aggravated existing socio-spatial segregation as a result of the National Party's election victory in 1948 (Muller, 2013). The Act primarily sought to bring permanence to residential separation by establishing the following provisions:

- Assigning different population groups to areas where they could reside, work and own property;
- Regulating rural-urban migration and curbing threats to the Apartheid regime by establishing separate and semi-urban townships for Blacks, Coloureds and Indians (The Department of Cooperative Governance and Traditional Affairs (CoGTA), 2009);

The Group Areas Act ensured that the Apartheid government would not only incur the administrative and financial burden of providing services to areas inhabited by Africans, but reserved a sizeable municipal revenue account for funding white monopoly capital interests (Sithole & Mathonsi, 2015).

Bantu Authorities Act No 68 of 1951 was another piece of legislation that initiated the largest project of racial reordering and supplemented the government's intention to make residential segregation permanent (Legassick, 1995). This law, however, expanded the principle of separate development and black self-government in the homelands embodied earlier in the 1913 Land Act (Louw & Kendall, 1986).

The effects of land distribution were substantial. Swatuk (2010) observed that white Afrikaner agribusiness holdings increased from 736.5 ha to 978.8 ha in 1951 and 1960, respectively. Ten Bantustans or homelands were established, namely Transkei, Ciskei, Venda, Bophuthatswana, Lebowa, Gazankulu, KwaNdebele, Qwaqwa, KaNgwane and KwaZulu (Wolpe, 1972). The establishment of these infamous areas were aided by the 1959 Promotion of Bantu Self-Government Act which ensured that black representation was abolished in the House of Assembly (ibid).

Prevention of Illegal Squatting Act, Act No 52 of 1951 gave power to property owners and government officials to demolish makeshift houses of informal urban communities and forcibly remove them from both private and public land (Phillips, 2014).

With the legislation of the Group Areas and the Bantu Authorities Acts, the national government and local municipalities were, to a certain degree, able to curb and redirect anti-Apartheid defiance and remove protests from the proximity of white residential and industrial areas (Harrison, 1992; Louw & Kendall, 1986). Therefore, it can be argued that the failure to fully realise the objectives of 1923 Act necessitated the legislation of additional land controls.

4.1.3 Racialisation of water and sanitation services

4.1.3.1 Water Act No 54 of 1956

The Water Act No 54 of 1956 signalled a new era of centralised water governance under the leadership of the Department of Water Affairs (DWA), previously known as the Department of Irrigation (Van Koppen *et al.*, 2002). It was primarily legislated to cater for the Republic's growing industrial, agricultural and urban expansion (Union of South Africa, 1956). For instance, by 1950, productive and residential activities in the Witwatersrand area consumed 342 mega litres of water on a daily basis (Tempelhoff, 2017).

The Act safeguarded *dominus fluminis* or absolute ownership and riparian water rights – exclusive water rights guaranteed by land ownership, which was detrimental to water and sanitation services for non-white communities (COGTA, 2009; Tewari, 2009). The Act aligned with the principle of separate development embedded in the Bantu Authorities Act and became an effective weapon for the NP to control and exploit these areas (Tempelhoff, 2017). Homeland governments oversaw the broader aspects of water management (drinking water supply schemes, state-subsidised irrigation schemes) and delegated specific duties to tribal councils and chiefs (operation and maintenance of water supply facilities and land reallocation) (Department of Planning, Monitoring and Evaluation) (DPME), 2014).

Riparian and *dominus fluminis* rights together with land controls ensured that under the NP's control, the bulk of water resources were unequally partitioned and Homeland governments had to obtain water rights and permits, usually at a point of extreme disadvantage (Schreiner *et al*., 2017; Van Koppen *et al*., 2002). Moreover, the degree of the NP's use, control and distribution of water resources and the so-called autonomy of the homelands was no longer in question as seen in subsection 2 of Chapter 1:

> The Minister shall have the power to (a) acquire, construct, extend, alter, maintain, repair, control and dispose of water works or such other works as he may consider necessary in the exercise of his powers or the performance of his functions under this Act. (Union of South Africa, 1956)

Essentially, this clause legally allowed the government to expropriate land for the purposes of constructing and maintaining state-controlled water works, including land in the "independent and self-governing" homelands. According to Lingle (1983), the interventionism of the government over the water and sanitation sector exhibited characteristics of racial socialism where the Republic owned and centralised infrastructure, multinational corporations and productive assets.

In its earlier phases, the Water Act was hailed as the first reprehensible piece of water legislation because it sought to centralise "…water regulation in the interests of the economic heavyweights, agriculture, mining and industry" (Tewari, 2009:70). However, with the continuous demand for water from the economic and urban sectors coupled by the weakening NP government in the late 20th century, the cracks within the water governance framework became increasingly evident (COGTA, 2015; Masindi & Dunker, 2016). Furthermore, the Act's fundamental architectures emulated and implemented frameworks commonly used in water-rich European countries, which were not in tandem with South Africa's water scarcity realities (RSA, 1998; Swatuk, 2010).

4.1.3.2 Sanitation in black urban locations

Sanitation provisions in black inhabited townships in the segregation (1905-1948) and apartheid era (1948-1990) were unsurprisingly inadequate (COGTA, 2009). Between 1929 and 1948, black urbanisation reached its peak as Africans living in Johannesburg's peripheries (either in informal settlements or townships) doubled from 244 000 in 1939 to 400 000 in 1946 (Harrison, 1992). Political groups, most notably the *Sofasonke* squatter movement led by James Mpanza, used squatting strategies in defiance of the government's deliberate failure to provide land and social services for black urban dwellers (Tempelhoff, 2017). Deliberate inattention by the national government to the broader linkages between equitable land access and social services perpetuated the view of informal black urbanisation as a public health menace (Makhari, 2016; Maylam, 1995).

Population growth in Johannesburg, for instance, was a result of increased rural-urban and international migration thus forcing the NP government together with local municipalities to respond to black urbanisation by constructing twelve African townships where wage labourers, job seekers and their families were forcibly resettled (Makhari, 2016; Tempelhoff, 2017). However, social services in these locations were either inadequate or non-existent and as a result, sanitation in these communities includes makeshift pit toilets, bucket latrines and the bush (DWS,

2012). Figure 4.1 illustrates the state of sanitation facilities during Apartheid in rural and peri-urban communities.

Figure 4.1: Makeshift toilets during Apartheid

Source: Nojiyeza and Amisi (2008)

During this period, it was common practice for local municipalities to purposefully redirect fiscal resources intended for developing infrastructure and services in black townships because they felt families were extremely poor to pay for the maintenance of waste removal and sewerage and water systems (Harrison, 1992).

4.2 The status of sanitation reform in democratic South Africa

The newly elected government adopted a sensitised approach towards informal urbanisation because of the colonial legacy as well as significant financial and administrative obligations (Housing Development Agency (HDA), 2012; Huchzermeyer, 2003; Mears, 2011). In his analysis of slum clearance, Scott (1998:140) argued that the modern state perceives informal settlements as threats to the "…doctrines of layout, use, ground coverage…and security concerns behind much "urban renewal". Essentially, informality has entrenched a high modernist state

of the art (Huchzermeyer, 2003; Mears, 2011). The vulnerability of urban poor women to insecure land tenure often results in the exclusion from citizenship and the fundamental rights found therein (Huchzermeyer, 2004; Scott, 1998).

South Africa's post-apartheid sanitation legislation is widely recognised as the most progressive instrument in the world because it is underpinned by principles of racial and gender redress, which seek to regulate services towards poverty eradication, social and environmental justice (Schreiner *et al.*, 2017). There are benefits for a country to formulate sanitation policies and these include:

- Good sanitation policies help to create an enabling environment that encourages access to and use of sustainable sanitation services;
- National Sanitation Policies can serve as a key stimulus to local action by including local initiatives in the overall strategy;
- Sound policies set the scene for more sustainable and effective programmes and;
- Policies help shape incentives (Elledge & Schertenleib, 2003:9).

However, the design and implementation of adequate sanitation in informal settlements has not been without its challenges. Informal urban sanitation in itself is a complex and networked problem, particularly in South Africa as it is embedded in a history of land dispossession, spatial segregation and racial exclusion (Funke *et al.*, 2007; Sithole & Mathonsi, 2015).

4.2.1 Remedying the sanitation backlog

The right to sanitation is not explicitly outlined in the South African Constitution, but it is contained under the following clauses: human dignity (Section 10); privacy (Section 14); freedom and security of person (Section 12(1)(e); environment (Section 24(a) and the right to housing (Section 26(1). The Water Services Act of 1997 and National Water Act 36 of 1998 are the primary legislations that repealed the Water Act of 1956 and all related legislation (Tempelhoff, 2017; Tewari, 2009). The Water

Services Act is the principal legal instrument that regulates water and sanitation supply to consumers (RSA, 1997).

The Act consolidates every person's right to equitable and efficient water services and mandates water institutions to provide basic water supply and sanitation to everyone (RSA, 1997). In this study, water institutions refer to Water Services Providers (WSP) and Water Services Authorities (WSA) (ibid). A WSA is a municipality that ensures access to water and sanitation services within its area of jurisdiction as regulated by CoGTA (DWAF, 2012). On the other hand, a WSP provides water and sanitation services on behalf of a municipality and performs other contractual obligations as specified by the WSA (ibid). The water institution under focus is the City of Tshwane and is extensively dealt with in section 4.4.

The National Water Act deals specifically with water resource management and reaffirms the state as the sector regulator (RSA, 1998). Through the Department of Water Affairs and Forestry (DWAF) (subsequently re-named DWS), the state formulates, monitors and enforces water and sanitation standards (CoGTA, 2015). This is in accordance with Section 12 of the Act, which states that:

> …the National Government, acting through the Minister, must ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all persons and in accordance with its constitutional mandate (RSA, 1998).

DWS (2016:12) has admitted that eliminating the backlog in informal settlements has been the "…single greatest challenge facing the…sanitation sector..." Data estimates that between one and two million households in South Africa live in informal settlements and lack basic sanitation (StatsSA, 2017). The challenge of providing sanitation services to informal settlements relates to high rise and high density settlement arrangements and tenure insecurity, which has been cited by municipalities as a "…defining requirement for provision of services in their jurisdiction" (DWS, 2016:12). Hence the Upgrading of Informal Settlements Programme (UISP), a subsidy contained in the Housing Code and instituted in terms

of section 3(4)(g) of the Housing Act, that aims to improve social and economic conditions by providing access to services (DHS, 2009).

Ideally, the UISP enables municipalities to improve living conditions in informal settlements by collaborating with communities to provide housing assistance, permanent services and tenure security where they live, i.e. *in situ* (DHS, 2019). A case in point is the formalisation of Orange Farm, one of the largest informal settlements in South Africa located in the periphery of Johannesburg South. Recently, it received a 33.5 mega litre concrete reservoir to increase water storage and supplement supply to residents Orange Farm (Frankson, 2018).

Together with the SFWS, municipalities are explicitly obliged to provide "…interim basic water and sanitation services…in accordance with a progressive plan that addresses both land tenure and basic services." (DWAF, 2003:67). The norms for interim services are contained in Section 3.13A of the UISP and provide for:

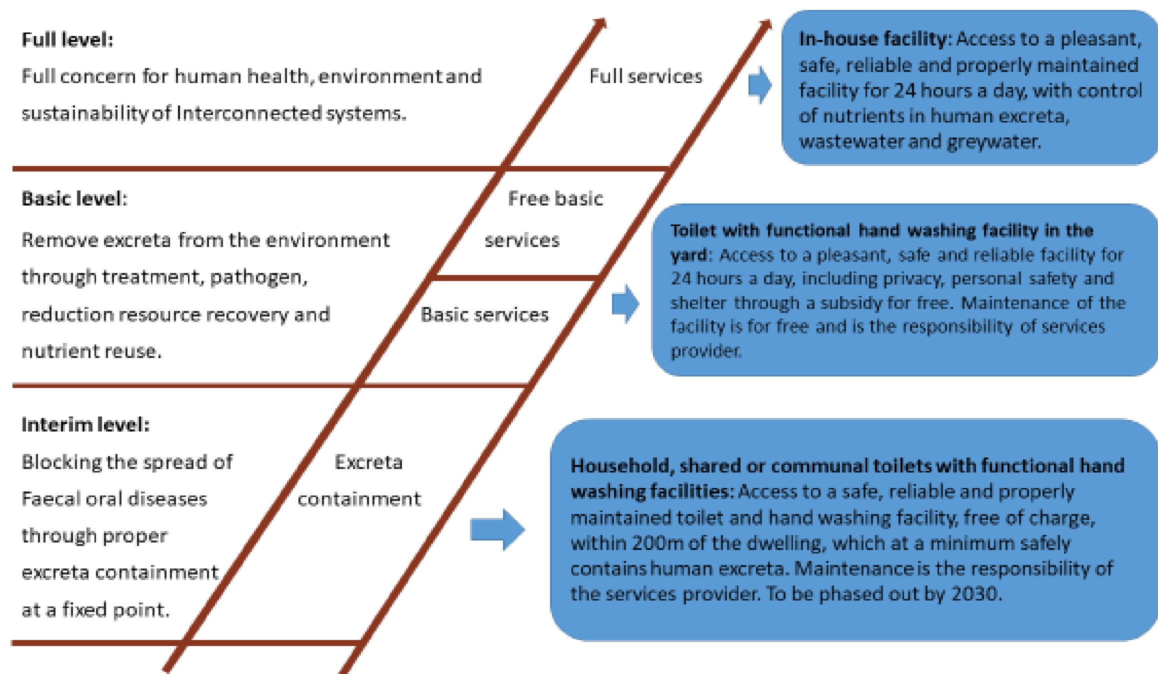
- interim services as a first phase to alleviate immediate/emergency need to access potable water, sanitation services and certain preventative measures to curtail the occurrence of disasters.
- the upgrading of such interim services into permanent services and/or the provision of permanent services from the outset of the project as may be required by local project circumstances.

The interim level of service, as prescribed by the DHS and DWS, is the first port of call for addressing sanitation backlogs in informal settlements and the first stage towards the goal of universal access as shown in Figure 4.2 (DWS, 2017).

Figure 4.2 is a general framework as prescribed by National Norms and Standards for Domestic Water and Sanitation Services, but the UISP offers maximum discretion to municipalities to decide the nature and level of engagement for permanent sanitation infrastructure (DHS, 2009). Unfortunately, it has resulted in interim services being denied to households living in informal settlements because

municipalities may not have a long-term plan to upgrade the settlement area (Tissington, 2011). This was the case for the Harry Gwala informal settlement, which is under the Ekurhuleni Metropolitan Municipality, and it is examined in detail in section 4.3.2.1.

Figure 4.2: Norms and standards for levels of sanitation services



Source: DWS (2017)

The 2016 National Sanitation Policy states that the fundamental issues to be addressed in sanitation delivery to informal settlements are that of equity, efficiency, effectiveness, affordability, appropriateness and sustainability (DWS, 2016). The White Paper on Water Supply and Sanitation, in accordance with the principle of shared responsibility, tasks the government with the responsibility of meeting the capital costs of sanitation infrastructure and bulk water services and the users with O&M costs (DWAF, 1994).

The National Treasury estimates that R13.66 billion is required to provide basic services to 1.4 million households in formal settlements and 584 378 households in informal settlements and a further R36.64 billion is needed to meet the capital costs

for infrastructure and O&M related backlogs (DWA, 2011). This amounts to an estimated total of R50.306 billion which stands in stark contrast to the R26.7 billion that was actually given to municipalities for the 2011/2012 financial year (ibid).

Thus, given the current fiscal climate combined with the high capital costs highlighted above, the provision of equitable access to sanitation has been uneven on a massive scale. Whilst the government realises its mandate of prioritising redress policies, it has had to maintain the principle of "some for all" rather than "all for some" (DWS, 2016). It ensures that even in the current fiscal climate and scarcity of financial resources, sanitation funding will be prioritised to assist those who have the greatest need (DWAF, 1994).

4.2.2 Fault lines around sanitation policy and practice

The lack of clarity particularly on how the DWS and DHS coordinate their efforts around basic sanitation has caused significant fragmentation. The problems with the national institutional framework have been noted particularly around the National Sanitation Programme Unit (NSPU), a subsidiary of the DHS tasked with providing basic sanitation services to deeply impoverished areas such as informal settlements and rural areas (CoGTA, 2009). Speaking on the status of the institutional arrangement around basic sanitation provision, an official from the DWS stated:

> …those kinds of separations exist constitutionally…As the DWS, we are responsible for all sanitation in formal settlements…but we cannot ignore the fact they are informal settlements. So we also have an interest in how sanitation is delivered to those areas…Through our entity, the WRC, we are on a mission, although low key, to see what kind of new sanitation technologies can assist informal communities. (Int., DWS, October, 2018)

Hoossein *et al*. (2014) and Tissington (2011) also highlighted the move of the NSPU together with its personnel, funds and tools from the DWS to DHS in 2009 as overly bureaucratised, resulting in the NSPU's ineffectiveness. During a presentation to the Parliamentary Portfolio Committee, the Minister of Human Settlements cited

problems with the contradiction in mandates between the DHS and NSPU by stating that its "…biggest challenge was the fact that it is a policy-oriented department, whilst the National Sanitation Programme's focus is on implementation" (DHS, 2010:46). In addition, the NSPU itself has argued that there is "…ineffective collaboration at all government levels…" because water falls under the mandate of an entirely different department thus hindering sanitation delivery to communities that have the greatest need (DHS, 2011:19).

For Dugard (2016) and Tissington (2011), there is a general unwillingness to take responsibility for the NSPU because informal urban sanitation, in itself, is a highly controversial and politicised issue which has resulted in sanitation related issues being skirted around. According to one of the officials from DWS:

> When it comes to sanitation, we are still very far from offering sufficient assistance to informal settlements. They are complaining a lot and we understand their complaints, but the land they occupy is not for residential use. That is why we do the little we can. (Int., Pretoria, October, 2018)

The country's sanitation policy and practice is demonstrative of Van Wijk-Sijbesma's (1998:99) analogy of sanitation as the "…Cinderella of the drinking water sector: the poor relative in a German fairy tale who comes second place and must remain out of sight." For example, a DWAF (2005:1335-1338) audit described sanitation implementation between 1994 and 2003 as "unsustainable", "under-invested" and "under-financed". The audit revealed that funding and implementation of water projects in South Africa tend to be made a higher priority, whilst sanitation takes a back seat resulting in slow sanitation delivery and environmental pollution (DWAF, 2005; Hoossein *et al.*, 2014). However, StatsSA (2016) has countered this claim by arguing that the percentage of people with an improved sanitation facility increased from 49.3% in 1996 to 76.8% in 2013.

Hoosein *et al.* (2014), however, caution against attributing numerical increases in sanitation facilities as an improvement in sanitation coverage. The attention to the

social dimension of sanitation delivery is insufficient and the preoccupation with toilet building overlooks the communities' real needs which include health and hygiene education, gender equality and environmental sustainability (McFarlane *et al.*, 2014). In 2007, the Council of Scientific and Industrial Research (CSIR) conducted a spot-check assessment of the 2410 sanitation projects in the Municipal Infrastructure Grant (MIG) database (DWS, 2012). The following findings were made:

- Up to 25% of on-site toilets were inadequately designed for ventilation.
- 61% had no hand-washing facility near toilet.
- Some flush toilets were found without cisterns (23%) or pedestals (18%).
- A number of facilities were found to have problems with the toilet doors (10% do not close, and 18% have no latch on the inside).
- Up to 68% of on-site top structures were constructed in a way which meant it cannot be moved when the pits are full.
- 28% had poorly designed or built toilet vent pipes.
- On 60% of the facilities municipalities were only doing reactive maintenance.
- 40% of municipalities were seen as not having adequate maintenance capacity. (DWS, 2012:10)

In a report on the *Quality of Sanitation Services in South Africa*, DWS (2012) conceded to the fact that the challenges of the fragmentation ensured that no single regulator could take responsibility for the implementation and monitoring of sanitation consequently increasing inadequate sanitation services. According to the report, South Africa's sanitation challenges are a combination of:

- Service delivery backlogs (people who have never been served).
- Refurbishment backlogs (sanitation infrastructure that has deteriorated beyond regular maintenance requirements).
- Extension backlogs (existing infrastructure that needs to be extended to provide the service to new households in the communities).
- Upgrade needs (infrastructure that does not meet the minimum standards).

- Operation and maintenance (O&M) backlogs (infrastructure that has not been properly operated and maintained, but can be adequate if funds are allocated to ensure proper operation and maintenance (ibid).

4.2.2.1 Free Basic Services Policy

Early sanitation projects after 1994 were overly ambitious as they were out of touch with the state of deep poverty among previously marginalised groups. For example, a newly built water system in rural Lutsheko in Eastern Cape was thought to have improved people's livelihoods, but the project's success was questioned after a visit from the then DWAF Minister, Ronnie Kasrils, found that rural households felt the subsidised rate of R10 per month was still too expensive (DWAF, 2004). Thus, out of the targeted 7500 households, only 323 households made use of the state-subsidised water system whereas the majority resorted to using their old polluted water sources (Taing, 2016).

The prevailing assumption was that poor households could even afford highly subsidised rates. However, it became increasingly evident that the policy approach of *shared responsibility* was not feasible as the majority of the black population were too poor to pay for these services (Dugard, 2016). Muller (2008:72) has added that cost recovery challenges were more "…acute…" among poor households in cities because they consumed higher rates and as a result service providers were either forced to cut services or establish costly systems to recover arrears from indigent households.

The pricing policy, even when significantly subsidised, limited poor households' access to basic services and therefore violated their right to "…an environment that is not harmful to a person's health or well-being…" (RSA, 1996). Local municipalities were therefore confronted with moralistic issues in providing services to indigent communities because they were mandated to pursue payment at all costs (Muller, 2008). Thus, the 2000/2001 *Free Basic Services* (FBS) policy came out of the realisation that "…due to the level of unemployment and poverty within municipal

areas, there are both households and citizens who are unable to access or pay for basic services." (DPLG, 2005:12)

The Constitution enshrines every citizen's right to basic water and sanitation access, but the issue of affordability is overlooked (RSA, 1996). Thus, the Free Basic Services (FBS) policy tasks local municipalities to provide a certain level of free electricity, water and sanitation services to previously under-served communities in order to eradicate service delivery backlogs (Gool, 2013). Under the FBS policy, poor households are entitled to:

1. *Water*
   - 25 litres per person amounting to a monthly consumption of 6000 litres in a household of 8 people).
   - An additional 3 or 4 kilolitres for households with waterborne sanitation.
   - An additional amount of water for households that are directly affected by HIV/AIDS.

2. *Electricity*
   - A monthly supply of 50kwh of free electricity per household (DWAF, 2002).
   - The framework for Free Basic Water (FBW) Implementation Strategy (2001) and free electricity (FBE) is explicitly outlined in several policy documents including the National Indigent Policy, Section 73 of the Municipal Systems Act and the SFWS. Unfortunately, implementing free basic sanitation (FBSan) services has lagged behind because there is no clear guidance at national level regarding basic sanitation standards resulting in different interpretations of the policy by municipalities (Hemson, 2016).

4.2.2.1.1 Challenges of free basic sanitation policy

There has been much criticism levelled against the FBSan. The policy was developed to guide municipalities to bring universal sanitation access by 2014, which

the government later described as "…too ambitious…" (Dugard, 2016:2). According to the SFWS, it is the national government's constitutional responsibility to support, strengthen and regulate local government so that it performs its municipal duties (DWS, 2003). Sanitation targets are determined at national level, but they overlook certain realities such as the revenue base and capacity of the municipalities (Mjoli, 2008). Thus, it has resulted in the targets for universal sanitation being postponed; first from 2014 to 2016 and the latest postponement being 2030 (Dugard, 2016; DWS, 2016). Unfortunately, sanitation backlogs in peri-urban areas seem to be growing faster than the municipalities' ability to address them.

The National Norms and Standards for Domestic Water and Sanitation Services (2017) stipulates that a Ventilated Improved Pit (VIP) toilet is the minimum basic sanitation standard (DWS, 2017). However, this option is highly dependent on the availability of space because it requires continual shifting or relocation of the toilet after the pit has reached its maximum capacity (CSIR, 2010).

The FBSan policy is subject to different criteria, benefits and varying levels of compliance largely due to the loose definition of basic sanitation (Algotsson *et al.*, 2009). According to the DWS (2012), the policy is purposefully vague so that municipalities implement the policy based to their constituents' needs. The national government's definition of basic sanitation has repeatedly changed over time as seen in Table 4.1. This has not only caused significant ambiguity and confusion in the policy framing, but has also given municipalities too much flexibility in implementing the FBSan (Taing, 2015).

Table 4.1: Definitions of basic sanitation

Policy Source	**Definition of a basic sanitation service**

Water Services Act (Republic of South Africa, 1997)	The prescribed minimum standard of services 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.
Regulation 2 of the Compulsory National Standards (promulgated in the Water Services Act) (Republic of South Africa, 1997)	a. the provision of appropriate education; 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.
FBSan Implementation Strategy (DWAF, 2008:1)	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.

According to the then Minister for Provincial Affairs and Constitutional Development, decentralisation seeks to ensure that Local Government is centred "…at the threshold of an exciting and creative era in which it can and will make a powerful impact on reconstruction and development in our new democracy." (CoGTA, 1998:v).

Thus, local government is tasked with setting precise sanitation definitions and standards that speak to the land use and social patterns, topography, the spatial relationship between habitable space and the form of the built environment (Department of Environmental Affairs (DEA), 2016). However, while this seeks to ensure that municipalities implement the FBSan practically and specifically according to the needs of peri-urban communities, it also gives municipalities significant flexibility in implementation (Dugard, 2016:95). A key informant from

Abahlahli baseMjondolo argued that as a policy in itself, the FBSan is widely misunderstood and unknown by its beneficiaries:

> …not many informal settlement dwellers know about the policy. All we know is that these basic services are rights enshrined in our constitution…but the free basic sanitation is not enforced. When you have any policy then the policy must also clearly spell out the consequences when a state organ fails to carry or implement the policy. Otherwise what is the point of having a policy when ordinary people on the ground do not know about it or it is not implemented? (Int., Pretoria, February, 2019)

The decentralised form of governance has given municipalities too much room for interpretation resulting in the serious challenge around the way sanitation provision is conceptualised and implemented in informal settlements (Bohler-Muller *et al*., 2018). According to the National Sanitation Policy (2016), interim services are specifically designed to service temporary informal settlements. Evidence to the contrary, however, reveals that most South African informal areas are permanent features of the urban landscape with many having been in existence since the early 1990s (Lemaire, 2015; Monson, 2015).

Box 1 below draws on the case of *Johnson Matotoba Nokotyana and Others v Ekurhuleni Metropolitan Municipality and Others*. The lack of clarity regarding the FBSan allowed local authorities to reshape the right to access basic sanitation instead of implementing the right in accordance with pre-existing legislation (Tissington, 2011).

Box 1: The Nokotyana case - struggle for basic sanitation in Harry Gwala informal settlement

For many years, a large community living at Harry Gwala informal settlement, located in Ekurhuleni Metropolitan Municipality in the Gauteng province, had attempted to engage with the municipality to have the informal settlement upgraded in situ, as opposed to being relocated. They launched an application for services - including "temporary sanitation facilities" – in the South Gauteng High Court;

however, their application was dismissed. They appealed directly to the Constitutional Court, specifically around the High Court decision not to force the municipality to provide basic sanitation. As a result of the pressure of litigation, the municipality revisited its budgets and agreed to provide one chemical toilet for every ten informal settlement households (1:10) across its jurisdiction. Shortly before the court hearing on 15 September 2009, national and provincial government offered additional funding to provide one chemical toilet for every four households (1:4) in the Harry Gwala informal settlement. However, the municipality declined the offer as it would be done on the basis that "the circumstances of the applicants are exception and unique" and that it would amount to unfair discrimination against other similarly situated communities under its jurisdiction.

Adapted from: Tissington (2011)

4.2.3 Gender and informal urban sanitation

Elledge and Schertenleib (2003) observed that community sanitation projects are likely to be more effective and sustainable when women fully participate in them. A holistic gender-sensitive approach seeks to reconcile governmental cultures, policies, resource allocation and project design and implementation to gender equality and women's empowerment (Cavill *et al.*, 2016). This process involves examining the roles of both men and women, the challenges they face and their needs in a development project.

South Africa's commitment to gender equality is enshrined in several international, regional and national instruments. These include the Convention for the Elimination of All Forms of Discrimination against Women, Southern African Development Community Declaration on Gender and Development, the Africa Platform for Action, the Bill of Rights, Commission on Gender Equality and the DWAF Gender Policy (Libertun de Duren, *et al.*, 2018). The National Policy Framework for Women's Empowerment and Gender Equality stipulates that gender mainstreaming in service provision is one of SA's main intervention areas (OSW, 1998).

Poor sanitation has become part of the definition of an informal settlement and it is often typified either by open defecation or by multiple households sharing defective sanitation facilities (Winter *et al.*, 2019). Although the challenges of informal urban sanitation affect all residents living in informal settlements, women and young girls are especially affected by the lack of adequate sanitation (McFarlane *et al.*, 2012). As noted by an official from Abahlahli baseMjondolo:

> …for women in informal settlements many still do not have toilets at all and end up using bushes which are not safe. For those who have toilets, they are not enough and are built far away from their shacks and it risks their lives. (Int., Pretoria, February, 2019)

In informal settlements, the design and location of a toilet are crucial elements to ensure safety, security, privacy and hygiene (Winter *et al.*, 2019). More especially for women, these four elements are significant in reducing incidences of sexual assault as well as health issues such as constipation, vaginal and urinary infections (Cavill *et al.*, 2018).

One of the main challenges in effecting sustainable and transformative gender mainstreaming is that it is often misinterpreted as benefiting women at the expense of men (Bardasi & Garcia, 2016). The relationship between informal settlements and gender is a complex and contentious one. For women, informal living offers opportunities for independence, personal and economic development and the freedom to become involved in informal politics whereas for men, it is often interpreted as failure to provide for their families, which often erodes their masculinity (Meth, 2017). Thus, when women are placed at the forefront of community sanitation projects without considering the community's specific dynamics, their involvement is often hindered because they lack the authority to influence decision-making processes (Huchzermeyer, 2008; Winter *et al.*, 2019).

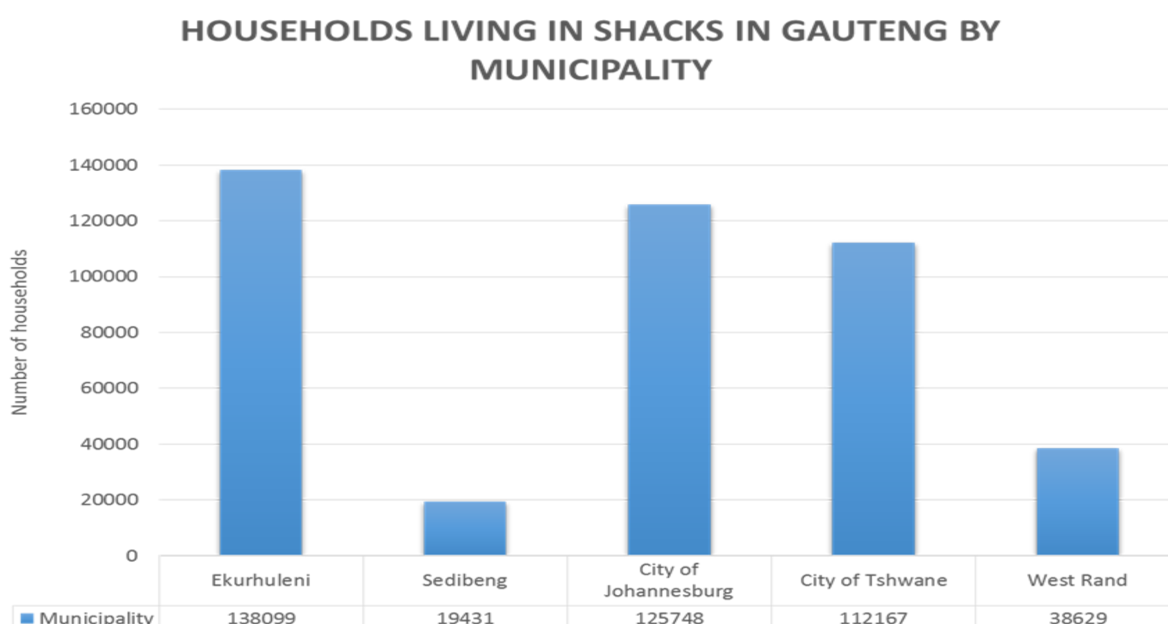
According to Cavill *et al.* (2016), the sustainability and transformative impact of a gender aware approach ought to engage men's S&H behaviours and practices in three areas: men as objects to change, men as agents of change and men as

partners for change (Winter *et al.*, 2019). In terms of sanitation, however, SA's gender mainstreaming policy primarily focuses on women in formal households whereas for women residing in informal settlements, the policy has overlooked them (UN Habitat, 2016). The FBSan policy, for example, is the primary policy for sanitation provision in informal settlements. However, apart from refuse collection, the policy in itself is unclear on the type of services households can receive. Therefore, it is unsurprising that it does not contain specific provisions for women and the gender specific sanitation needs they have.

4.3 The post-apartheid municipality: The City of Tshwane

The CoT forms one of the three largest metropolitans in the Gauteng province. As illustrated in Figure 4.3, the municipality has over 112 000 households living in shacks because the province is a magnet for international and in-migration resulting in the high demand for housing. The majority of rural and international migrants who come in search of employment and education opportunities find themselves living in backyard shacks or informal settlements, which are usually found on the periphery of the City's economic zones (CoT, 2018).

Figure 4.3: Households living in shacks by municipality



Source: HDA (2013)

4.3.1 City of Tshwane's statecraft

The CoT's policy stance on informal settlements is informed by the regulations promulgated in the National Building Regulations and Building Standards Act, 1977 (RSA, 1977) and the municipality's By-laws relating to the Management and Control of Informal Settlements and the Building Control By-laws that are mainly used for residential purposes (CoT, 2016). The CoT defines an informal settlement as a residential area comprised of shacks built on land, with or without the consent of the owner and where residents erect shacks built from makeshift construction materials (ibid).

However, the CoT's management of informal settlements contends with the de facto existence of apartheid era planning systems, which continue to define settlement patterns (CoT, 2016). Spatial planning during apartheid was based on structuring urban space into racially segregated zones to present the city as an "…aestheticised commodity…" (Miraftab, 2007:12). In Pretoria, between 1940 and 1950, the relocation of black people from the multiracial and economically thriving Marabastad to Atteridgeville, the southwest periphery of the city centre spoke to the government's policy of "selling the city" (Philips, 2014). This move sought to turn Pretoria into a world-class city by increasing consumption habits, aestheticising urban space and drawing foreign investment from white British immigrants (ibid).

Unfortunately, the practice of "selling the city" has been extended into democratic South Africa as seen by the abandoning of equity-oriented policies such as RDP for market oriented approaches such as the GEAR programme (Mirosa & Harris, 2012). Hart (2014:5), however, argues that this shift has caused local government to "…become a key site of contradictions…" as neoliberal practices have seen the rising of racial, socio-economic and spatial inequalities as well as the increased violence of service delivery protests. The municipality's approach to urban informality issues connects to Hart's (2014) characterisation of South Africa's urban landscape as being in a state of post-apartheid crisis. Simply put, spatial transformation post-

1994 is skewed by the de facto existence of apartheid era systems and neoliberal policies and practices which have intensified structural inequalities for the majority of the population (Hart, 2014; McFarlane & Silver, 2016).

Tshwane's neoliberal program of restructuring is seen through the implementation of urban revitalisation models popularised by the City of New York in the United States of America (Didier *et al.*, 2012). These models seek to create world-class cities by establishing City Improvement Districts (CIDs) and can be seen in municipalities such as Cape Town, Johannesburg and until recently Tshwane (Miraftab, 2007). Didier *et al*. (2012) defines CIDs as zones or areas where property owners pay additional levies to the municipality to receive superior services. Property owners receive policing services against crime tendencies, sanitation services to prevent social decay and marketing services, which foster economic development and capital improvements (Miraftab, 2012). CIDs in Pretoria are implemented in partnership with the CoT, South African Police Services (SAPS), Tshwane Metropolitan Police (TMPD), Emergency Services and Tshwane Metro Council. The benefits of CIDs in terms of Section 7 and Regulation 25-33 of the Gauteng CID Act no 12, 1997 are:

- Enhancing the environment and strengthening investor confidence.
- The improvement district approach is holistic.
- The improvement district offers private sector managers.
- An improvement district creates a positive identity for the area.
- Creating cleaner, safer and more attractive precinct.
- Ensuring a stable and predictable resource base to fund supplementary services and programs.
- Providing non-bureaucratic and innovative management of city areas.
- Responding quickly to market changes and community needs.
- Giving an urban area a distinct identity and making it more competitive with surrounding suburban retail and business centres.

CIDs have, however, been promoted through mantras such as "cleaning up" or "defeat crime and grime" (Didier *et al.,* 2015). Thus, they have become cognisant of

how the sanitation discourse during segregation and apartheid was used to shape public perceptions and drive separate urban development. McFarlane and Silver (2016:42) characterise the contemporary sanitation syndrome as a "…constant shadow of failed promises. The architecture of the contemporary sanitation syndrome is one of failed service delivery promises and frustrations over democratic inertia."

Secondly, given that CIDs are based primarily on one's ability to pay, they tend to be elitist because they prioritise consumer rights over citizen's rights and the interests of formal property owners in high and middle-income areas, formal businesses and foreign investors (Didier *et al.,* 2015). Vogiazides (2012:19) defines the challenge of neoliberal urbanism policies as:

> …confining inhabitants to particular zones according to their social group, age or ethnic background – such as working class and immigrants in 'ghettos', students in 'campuses' and privileged groups in 'residential areas'…these new processes have led urban inhabitants to lose control over the decisions that shape the city.

4.3.1.1 Hindrances to basic sanitation delivery

The complexity of sanitation delivery to informal settlements relates in part to the fact that it is a difficult policy area, which ties to other departments and rights, such as housing, water, education and healthcare (CoGTA, 2009). Some of the problems hindering the municipality in ensuring service delivery, fostering sustainable livelihoods and spatial transformation include political, institutional and administrative challenges (Parliamentary Monitoring Group, 2010).

Firstly, the contradiction between national legislation and municipal policies allows the CoT to interpret the Constitution's right to sanitation in terms of its own policies. Under Section 2 of the By-Laws relating to the management and control of informal settlements, the CoT distinguishes between authorised and unauthorised informal settlements. Under this provision, unauthorised informal settlements are usually not

entitled to services as their occupation of the area is classified as a land invasion. A city official explained:

> You know some of these informal settlements have got funny names which are not official. So when they apply for townships we give them official names, we don't use their own…we proclaim the township and we formalise it and then put the necessary services. (Int., Pretoria, October, 2018)

According to the By-Laws Relating to the Management and Control of Informal Settlements, an unauthorised informal settlement is:

> "…not recognised by the Municipality as an authorised informal settlement and…will not be legalised and upgraded as a formal township in terms of the Municipality's existing housing policies…" (CoT, 2016)

Thus, in terms of the municipality's framework, the CoT is within its legal right to terminate and vacate residents in an unauthorised informal settlement.

In contrast, residents in authorised informal settlements qualify for free municipal services under the CoT's indigent programme. The CoT (n.d) defines an indigent as a person who lacks the necessities of life, such as food and clothing, sufficient water, basic sanitation, housing, refuse removal, basic energy, environmental health and healthcare. Under the CoT's FBSan policy, informal settlements are provided with dustbins and refuse removal (CoT, 2015). However, literature reveals that informal settlements are not exclusively related to poverty (Anciano, 2017; Parthasarathy, 2009).

It is common practice for individuals who can afford formal property rates to opt for residence in informal settlements because they offer the lowest cost of living as rentals and services are either free or overly cheap (Slavnic, 2010). Thus, it is problematic for the municipality to distinguish between households that have actual

needs for services because of the misconceptions around urban informality (Anciano, 2017). According to one facilitator from the DWS:

> …it's so unfair, these services are supposed to go to the indigent because not everyone in informal settlements is indigent…because it is a blanket service there are people who free ride on those free services…it's so difficult to identify who is truly indigent. (Int., Pretoria, October, 2018)

Thirdly, the location of informal settlements is a significant challenge for the CoT. Many informal settlements are built far away from existing bulk infrastructure or constructed on unsuitable land, such as landfills, dolomitic land, or flood-prone areas (Taing, 2016). Thus, it has proven difficult for the municipality to adequately provide sanitation services even for settlement areas that have been in existence for several years. According to one official who oversees township development engineering installations:

> …at times you find that they are people invading land and they have been staying there for 5 or 10 years and they want services. So we have to assess if it is possible to install temporary services. For informal settlements, we usually suggest that they be offered portable water or stand pipes, but in terms of sewer it's a problem because sewer lines, unlike, water, need to be installed in straight lines… (Int., Pretoria, October, 2018)

Tshwane's challenges with informal urban sanitation relate to the municipality's contentious politics, more so, after the 2016 local government elections. For the first time, Tshwane's administration was transferred from the ANC to the DA (Moatshe, 2018). Under the ANC's leadership, the CoT attempted to implement both pro-equity and neoliberal policies, but the co-existence of these approaches could not be fully achieved. Instead, it gave rise to tensions as seen in the increase of service delivery backlogs and protests (Friedman, 2019). Speaking at the Inaugural 2017/18 Budget Speech, CoT's Executive Mayor, Solly Msimanga said:

> The truth is that service delivery has been neglected for some time in this city…It was, regrettably, also not a priority of the former administration in its dying days in this metro…This is

> not because I don't like the former administration or bear any ill-will towards the former administration, But because the actions of the former administration have entangled this City in a whole host of cultures, practices and contracts that have made it difficult to provide the services our people so desperately deserve (cf. Mgobozi, 2017).

The proportional representation system has created space for internal power struggles within the municipality and has therefore undermined the political will and capacity to adequately address informal urban sanitation (Reddy, 2016). The DA's neoliberal approach impacts how it constructs and administers the CoT. Its liberal-oriented philosophy has concretised neoliberal policies in Tshwane through the adoption of commercialisation and a market-based system in order to ensure that the City runs according to business principles (Koekemoer, 2017). During the 2017/18 Inaugural Budget speech, the DA expressed its intent on enhancing Tshwane's administrative capacity by strengthening supply chain processes, cutting unnecessary expenditure and eliminating expensive contracts (Moatshe, 2018). Thus, households residing in peri-urban areas have been worst affected by the DA's budget cuts as seen by the frequency of service delivery protests between 2016 and 2018.

Tshwane's politics not only applies to the contentious relationship between political parties, but it is reflected among its residents where class struggles between the have and have-nots reveal the impact of the post-apartheid crisis on the city (Cameron & Krynauw, 2001). The northern, western and periphery areas of Tshwane are mainly occupied by the Black population and are well known ANC constituents. The problems and needs of people in these wards are largely poverty, housing, unemployment, transport, services (water, sanitation, electricity and infrastructure) and unemployment (Koekemoer, 2017). The DA wards, in the eastern and southern parts of Tshwane where the population is mainly white, falls under the high to medium income category and the residents have access to economic activities, services, recreational facilities and amenities (Cameron & Krynauw, 2001; Koekemoer, 2017).

4.4 Chapter Summary

This chapter discussed how sanitation policy and practice in South Africa has evolved. The provision of adequate sanitation in informal settlements has proven to be complex. The chapter began by tracing the historical development of how conceptions and approaches to sanitation were primarily shaped by the outbreak of the bubonic plague or the sanitation syndrome. The sanitation syndrome introduced new practices and modes of thinking around how race, urban space, health and hygiene by ascribing the black African body as the carrier of disease and dirt and thus became an effective tool in justifying segregation and apartheid. These new practices, in the form of legislation and policies, therefore allowed the Apartheid state to commodify and align urban spatiality to the interest of white capitalism in order to appeal to skilled immigrant labour and integrate South Africa into the global economic system.

The post-apartheid state is currently attempting to address the devastating effects of Apartheid particularly around service delivery. In the sanitation sector, several reforms have been introduced to ensure that peri-urban areas receive basic services. However, sanitation provision has proven to be difficult for the state to deliver given the multi-dimensionality of informal urban sanitation. Firstly, the state's redress policy is confronted by historical inequities, which stem from the spatial layout of pre-1994 cities and the existence of de facto apartheid policies and practices. Secondly, the lack of clear and context specific criteria within sanitation legislation and policies has given municipalities too much flexibility in interpreting how sanitation is provided to informal settlements.

Furthermore, at the centre of informal urban sanitation is the gender question because women and men have different sanitation needs. Women living in informal settlements are disproportionately affected by informal urban sanitation because they often resort to unsafe strategies such as open defecation, waiting until night time to use sanitation facilities and withdrawing food and drink intake. However, a gender-aware policy is still to be adopted at all levels of government.

Lastly, whilst the Constitution and several other pieces of legislation has tasked local government with service delivery, mitigating the sanitation gap in informal settlements has been met with its own fair share of challenges. Informal urban sanitation has become a reflection of the post-apartheid crisis where party politics, race and class tensions play out. Moreover, given that it is a highly political and contentious arena, the constitutional mandate to provide basic sanitation in informal settlements is met by sentiments that informal settlements should not exist.

CHAPTER FIVE

PHOMOLONG'S SANITATION EXPERIENCES AND MANAGEMENT

5 Introduction

In the preceding chapter, the study discussed how South Africa's history has shaped contemporary urban sanitation policies and practices. The purpose of this chapter is to describe the gendered division of sanitation activities, the existing power dynamics between households, and how these shape sanitation processes. It further considers how the macro level processes discussed in Chapter 4 interact with sanitation dynamics in informal settlements. Data from this chapter is sourced from a case study on households that share sanitation facilities in the Phomolong section in Mshongo Informal Settlement in western Pretoria.

The chapter is divided into two sections. The first section seeks to understand what influences the sanitation dynamics in the Phomolong section by exploring the underlying issues that shape shared sanitation behaviours. It begins by describing the toilet type, which sheds light into how the. A discussion of property ownership is presented, this being crucial to understanding the nature of informal tenure types in Phomolong and how these influence decision-making processes between male and female tenants and owners.

The concluding section examines the relationship between residents and the municipality and how it informs the former's responses to informal urban sanitation. Examining the nature of this relationship allows us to understand how the municipality's sanitation approach has affected residents' perceptions of citizenship and inclusion. The result of limited support has seen the community using various platforms to help them adjust to informal urban sanitation and informal living in general.

5.1 Typology: Phomolong informal settlement

Phomolong is one the six constituent settlements of Mshongo informal settlement established in the early 1990s (see Fig 3.1). The settlement was established on state land by the Apartheid government in order to provide people with temporary sites for accommodation until permanent housing could be provided (Monsoon, 2016).

The settlement was built on dolomitic land, which is prone to sinkholes. In 2017, approximately 45 families residing in one of the constituent settlements, Jeffsville, had to be relocated after a massive sinkhole destroyed their shacks and belongings (Tlhabye, 2017). Fortunately, no lives were lost, but for residents in Mshongo, living on dolomitic land is a lived reality and an ever-present risk to their rudimentary housing and sanitation facilities as these can easily collapse on them.

The settlement lies on undulating hills and for the majority of households that live further up the slopes, water supply is a frequent challenge. Furthermore, the non-existent drainage has resulted in the disposal of untreated wastewater or greywater from peoples' homes onto the streets. It has become a breeding site for disease carrying insect pests which threaten the health of Mshongo informal settlement as well as surrounding formal communities. The breeding sites are exacerbated when untreated greywater is mixed with rainwater.

The road infrastructure in the area is deplorable as it constitutes of narrow and unpaved roads. The poor road infrastructure hinders the movement of municipal trucks from collecting waste from all sub-section areas in Phomolong and the whole of Mshongo. It has therefore resulted in the gradual increase of illegal dumping sites around the settlement. Many of these dumping sites have become breeding grounds for rodent populations and disease carrying pests. These sites in turn pose significant threats to the broader ecological environment as well as the health and well-being of residents. During the researcher's frequent visits, children were seen playing near or in these dumping sites.

In terms of services, illegal water and electricity connections are common practice because of limited infrastructure. The majority of the residents are involved in pirating electricity. In many instances, these illegal electrical connections protrude into the street and are usually exposed. Thus, for pedestrians and motor vehicle owners there is a constant danger of being electrocuted. There are frequent power outages during winter because of overburdened transformers.

5.2 Understanding sanitation dynamics in Phomolong

Several sanitation projects in informal settlements have embarked on participatory-based initiatives to address the top-down approach inherent in most sanitation projects. However, ensuring adequate sanitation and other aspects of service provision, in informal settlements goes beyond consulting residents. Instead, it requires "…a meeting of minds coming together to find a shared solution…" which allows national and local policymakers to understand the complex reality of urban informality (TLAP, 2018).

Therefore, the micro level of this study revealed the multi-layered dynamics of informal urban sanitation activities in Phomolong informal settlements. More specifically, the data analysis revealed that shared sanitation revolves around issues such as the type of toilet, property ownership and decision-making processes between female and male owners and tenants. These processes advertently then shape the way sanitation in Phomolong is accessed, experienced and managed.

Presented below in Table 5.1 is a detailed profile of the households that participated in the study. The Table presents a preliminary overview of the sanitation situation among households in Phomolong.

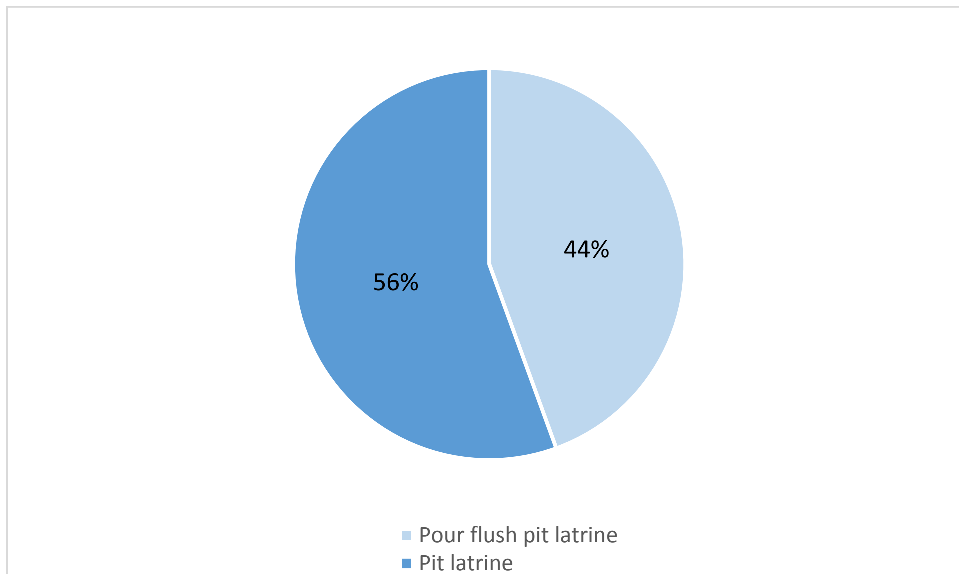
Table 5.1: Household profile

Person interviewed	Gender	Household Type	No of children	No of households sharing toilet	Toilet type	Ownership type		
						Owner (with tenants)	Owner (without tenants)	Tenant
Nobuhle	F	Female-headed	3	3	Pit toilet	✓		
Khetiwe	F	Female-headed	5	4	Pit toilet	✓		
Luthando	F	Female headed	2	More than 6	Pit toilet		✓	
Thembi	F	Male-headed	2	3	Manual flush		✓	
Dineo	F	Male-headed	1	4	Pit toilet			✓
Bongani	M	Single father headed	1	4	Manual flush		✓	
Xolisi	M	Male headed	1	5	Manual flush	✓		
Ntombi	F	Female headed	2	3	Pit toilet	✓		
Linda	F	Female headed	2	3	Manual flush			✓

Source: Author (2018)

5.2.1 Toilet type

Figure 5.1: Type of outdoor toilet



Source: Author (2018)

A toilet is the most important tool in an urban environment. In formal urban settlements, which are provided with running water, houses are equipped with in-house formal flush toilets, which provide a measure of basic hygiene. In the majority of situations, these are not shared facilities and are used and maintained by those living in the household. In informal settlements, however, where there is no running water, toilets are often outdoor public provisions that are mostly makeshift or informal. In the study, two types of outdoor toilets could be identified: the pit latrine and the manual flush or pour flush pit latrine.

Nearly 56% of households in this study use pit toilets compared to the 44% that use manual flush toilets as highlighted in Figure 5.1. Pit toilets are the dominating sanitation facility in Phomolong and the whole of Mshongo settlement because they are generally more affordable and require less expertise and materials to construct. In the words of one resident, “they are part of the informal setting” (Int., Atteridgeville, October, 2018).

Of the 56% that use pit toilets, the majority are female headed households. For most female heads, this toilet type is the only option for them because they lack the financial resources to install manual flush toilets. Pit toilets in Phomolong and the greater Mshongo area offer a cheaper sanitation alternative because they are constructed from salvaged material such as scrap metal, plastics, wood and dilapidated bricks. However, the health costs of these ‘cheaper’ toilets are significantly higher as they pose more dangers to women and young children.

Figure 5.2: A pit latrine in Phomolong

Source: Author (2018)

The most significant difference between a pit and manual flush toilet is that the latter requires water whereas the former does not. This makes pit latrine ideal for an informal settlement where water is only provided through common pumps. Secondly, the manual flush toilet has no cistern, instead, excreta is flushed by pouring water into the toilet tank or bowl using a container or a bucket. This creates difficulties as men see it as part of women’s duty to do so. Women and children thus bear an added burden of ensuring that the toilet remains hygienic and usable.

Figure 5.2 is a depiction of this type of toilet, and shows a pipe that is attached to rear end of the toilet to carry the waste into the pit. Women prefer this toilet because

of the hygiene and the fact that it only uses between 1 and 3 litres of water for each flush, which is a relatively lower cost in terms of water usage.

Figure 5.3 Manual flush in Phomolong

Source: Author (2018)

For households that live further up the hill, they do not consistently receive water because of water pressure challenges. Unfortunately, the water tanks installed by the municipality are not centrally located and as a result residents who live along the hill slope have to walk long distances to access water. It has proved difficult for households that use manual flush toilets and places additional burdens on women and young girls because they bear the responsibility of ensuring water is available. Linda is a single mother who shares a manual flush toilet with three households and she walks for almost 20 minutes every day to fetch water:

> Every day, I have to wake up early in the morning to get water. The place is far and I get tired quickly because I have to go down the hill and then up again…You saw that the toilet that I use needs water to flush. Maybe if I wasn't sharing the toilet with other people it could have been easy to budget my water so that I don't have to get water every day. (Int., Atteridgeville, October, 2018)

Users can remove the outlet pipe and connect it to the new pit without necessarily moving the toilet whereas pit latrines require the users to shift the toilet completely and construct it under a new hole. It was broadly felt that the challenge of shifting relates to space constraints and as a result, participants have to economise the little space they have. When shifting manual flush latrines, men largely took over. A case in point is a male owner who has been staying in Phomolong since 2009. He had to completely restructure his shack in order to shift the new toilet and plans on doing so again in the short-term future:

> …at the corner of this room, there was a toilet then it became full then I changed it…Soon I'll have to move this room and cut the space for the new toilet. There is no space here, but you have to make sure that the toilet is shifted before the waste starts spilling out. (Int., Atteridgeville, October 2018)

In terms of design, manual flush and pit toilets are similar in that they both use a pit for excreta disposal. When the pit reaches full capacity, a new hole is dug and the toilet is shifted near or beneath the new pit. The rate at which the pit reaches full capacity is dependent on:

- The size of the pit.
- The number of toilet users.
- The depth and width of the pit.
- The materials other than toilet paper being disposed of (Simkul, 2019).

Of the 56% who use pit latrines, the majority are women who also use the pit to throw away baby diapers and sanitary pads, objects that are regularly used and tend to fill up the pit quicker. This implies that the toilets are always full and people are exposed to raw waste that protrudes from the filling pits. While women are the most affected by filling pit toilets, they are mostly also the causes of the problem as alluded to earlier. More specifically, when it comes to the disposal of sanitary waste like pads, women shun away from disposing such waste in dust bin.

One of the landlords expressed that he was frustrated by his female tenants because of how they disposed their sanitary pads. He had requested them to dispose their sanitary pads in a refuse bin instead of using the pit to avoid it filling quickly. However, the women had refused citing some cultural aspects, beliefs and practices. The landlord complained:

> Sometimes I'll go to the toilet and see a used pad. As an African man, I shouldn't have to see that. I have told them not to throw pads in the pit; instead they should wrap them first and throw them in the bin. They'll say 'ah you want to bewitch us.' (Int., Atteridgeville, October, 2018)

On the other hand, women feel uncomfortable disposing these in places where they can easily be retrieved. This also means that filling pit toilets is a huge risk since these floating used pads can easily be retrieved, and be used against "the user by witches" (Int., Atteridgeville, October, 2018)

Thus, to ensure that the pit does not fill up quickly, residents with pit latrines have resorted to using a locally made chemical made from unknown acids, which corrodes waste, reduces pit levels, ultimately extending the pit's life. However, there are ideal pit latrine digesters, which are biodegradable, environmentally friendly and not corrosive which ensure the following:

- Promotion of microbial activity that is non-hazardous and harmless to humans, animals and the natural ecosystem.
- Prevention of the generation of unpleasant odours.
- Kills worms and flies inside the toilet.
- Immediate use because they do not contain chemicals or additives. (Simkul, 2019)

However, many believe that the locally made acid is mixed with various chemicals hence its ability to "eat" the waste. One mother complained that one of its undesirable effects is the unpleasant smell and the danger it poses to young children:

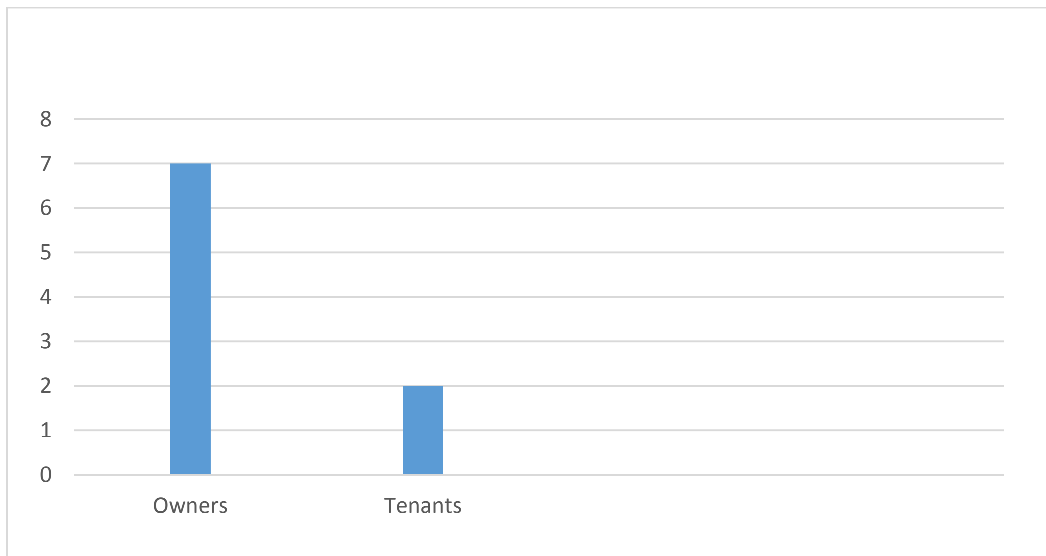
> They mix a lot of things in that chemical. You put it in the hole and it eats the dirt, but it smells for a long time. People here use it at night and not during the day, but it's still not good. As you can see, we have small kids playing around. An accident can happen where one of them can fall in and who knows what that chemical can do to them. (Int., Atteridgeville, November, 2018)

For households that use pit toilets, there was concern over the use of this chemical especially among the mothers because they felt that the chemical posed significant danger to their children. The notoriety of pit related deaths of children in South African informal settlements came up as an area of concern for Ntombi. She said that that in addition to her children falling in the pit, there is also an added risk of the chemical instantly killing a child before they can be rescued.

5.2.2 Owned and rented sanitation

Land ownership in Phomolong is a complex issue because it revolves around customary rules that are defined by the people rather than the legal form. Before detailing how the informal land market in Mshongo affects how shared sanitation is governed, the Chapter will begin by outlining the types of land ownership that emerged during the data collection. As shown in Figure 5.4, nearly 78% of the participants are "owners" whereas 22% are tenants who pay rent to absentee landlords. Interestingly, of the 78%, nearly 29% had bought land from the previous "owners", 43% "inherited" land and the remainder became owners by occupying vacant spaces.

Figure 5.4: Ownership types



Source: Author (2019)

Bongani and Xolisi purchased land for R20000 and R17000 respectively. Bongani's case is worth mentioning because he had to apply for a loan from Capitec Bank. This allowed him to erect two new additional shacks that he is currently renting out to two households for R500 each. However, in 2017 he was retrenched from his job as a janitor and making the repayments has been difficult. He narrated how he got the land:

> There was a lady there who was selling this place. She said R25 000, but I gave her R20 000. I went to Capitec and I got the loan…I am almost finished with the payment… but right now I'm not working, so it's hard making the repayments. (Int., Atteridgeville, October, 2018).

Since land in Mshongo is state owned and no individual or group of individuals have the authority to trade and hold land, the transactions between Bongani and Xolisi and their respective sellers were illegal. Nobuhle, a 41-year female household head who is an owner, confirmed the illegality and exploitation inherent in the informal land market:

> You buy land from these people who call themselves "officials", but they are not legal ones. They are just people who want to rob us. It's even worse because you don't get papers to prove that you are the owner and most people here when they buy land, they pay cash. So you can't even prove that you paid money for the land. (Int., Atteridgeville, November, 2018)

The second way of acquiring land ownership was more popular. Of the participating households, 28% came to own land by occupying a vacant stand and claiming it as their own. This method of ownership is, however, highly dependent on the length of residence in the area because it develops one's familiarity or relatedness within and between community members. These support networks are an essential component for when threats of land grabbing arise. One occupant narrated a story that once happened to him:

> Last year, a man came here claiming that he had bought my land from someone called Mr Ngwenya. We almost fought because he thought I had stolen his land and he tried to force me to leave. My neighbours had to intervene and told him that I had been staying here for 10 years. I was lucky that I had people to support me because it's very common here for people to lose their land that way. (Int., Atteridgeville, November, 2018)

This is in tandem with Pieterse's (2003) analysis of the functional role kinship clusters play in informal settlements. They play an essential role in securing one's claim of ownership.

Interestingly, 43% of the households had "inherited" properties from their parents who had been staying in Phomolong since the early 1990s. Land occupation during this period was especially high because the Apartheid government was on the brink of collapse. In addition, with the release of the late and former President Nelson Mandela, the majority of the poor black population rightly believed they were reclaiming their land. A case in point is that of Luthando, a 25-year-old single mother who was born in Phomolong. Her 'inheritance' has enabled her to receive income from the rentals she charges from the four shacks within her compound. Her father

was a migrant labourer from Limpopo who had been staying in Atteridgeville for several years before eventually settling in Phomolong. She said:

> After apartheid, in 1994, just before Nelson Mandela became the President of South Africa, people started occupying land because the ANC had said after Apartheid, everyone would have access to free land. It was then when my parents moved to Phomolong and started living here…because of my father, I am well known. (Int., Atteridgeville, October, 2018)

In informal settings, especially, land is socially, culturally, economically and politically symbolic. It affords poor households income generation opportunities and some access to housing, electricity, water and sanitation.

Thus, with informal ownership comes one's ability to establish both written and unwritten rules about S&H standards based on reciprocal social relationships instead of the "legal form". Thus, as a social relation, land determines how shared sanitation is governed. As alluded to earlier in Chapter 1, the problem of the commons significantly undermines the hygienic and dignified use of shared sanitation facilities. Ostrom's (2010) study on informal land ownership offers interesting insights into how ownership acts as a self-organising resource governance system when using common-pool resources. Ostrom (1998:505) argues:

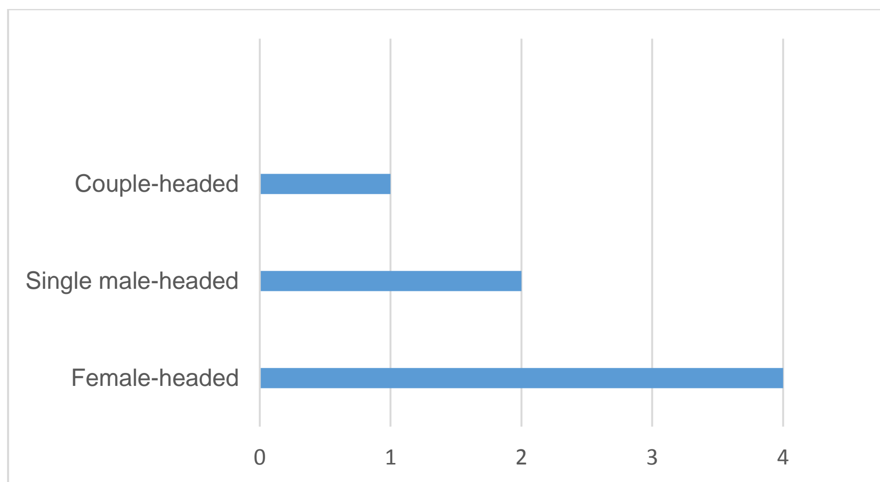
> …participants rarely impose sanctions on one another that have been devised exogenously…Sanctions are much more likely to emerge from an endogenous process of crafting their own rules, including the punishments that should be imposed if these rules are broken.

For residents in Phomolong and the whole of Mshongo, land ownership allows alternative forms of regulation and governance to emerge which in turn shape norms relating to good S&H practices.

5.2.2.1 Owners by household type

Owners in Phomolong are predominately female as seen in Figure 5.5. According to Meth (2017), informal living offers women opportunities for freedom, self-development and participation in informal politics and decision-making processes.

Figure 5.5 Owners by household type



Source: Author (2018)

This is the case of Luthando who, at 22 years old, became a landlord. According to Luthando, Phomolong offers her the opportunity to be economically independent. She explains:

> Growing up here has taught me the importance of being independent. I was still in high school when I started living by myself because my father lost his job. He and my mother decided to go back to Limpopo, but I chose not to go back with them. Since they were both not working, I couldn't ask for money…So I decided to build three shacks which I began renting out. I have since managed to enrol into UNISA and I am now studying law. (Int., Atteridgeville, November, 2018).

In addition, Luthando is also part of the ANCYL committee in Phomolong, which has enabled her to participate and shape community level policies and regulations. On Mandela Day, she had planned a clean-up campaign because residents had been

throwing their garbage in the streets as the municipality's waste management department had not collected their garbage for an extended period of time. As a result, cars were unable to move, residents were complaining of the unpleasant smell and the area had become a health hazard.

Also emergent from the data analysis is how the gender dimension of property ownership affects sanitation access. As highlighted by Nobuhle, women tend to be the primary victims of inequitable housing access and property ownership because of their exclusion from the informal land market. The location of the stand often drives people into land grabbing. Land grabbing is referred to here as a practice where an individual or group of individuals forcibly remove a household from where they reside in order to get the property for themselves.

It was observed during the fieldwork that an ideal stand is one that is in close proximity to shops, along frequent refuse collection routes and with electricity and water lines. For households' whose shacks are built further up along the slopes, they are especially disadvantaged because they cannot connect to water and they have to walk for more than 30 minutes to access the water tanks provided by the municipality. Furthermore, their garbage rarely gets collected because they do not have roads.

In this study, women were especially affected by land grabbing. This was the case for Nobuhle who almost became a victim of grabbing because of where her shack is located. A prominent woman in Mshongo, who is politically affiliated to the ANC tried to evict her:

> …she wanted to stay here, but I refused and so she wanted to chase me away. She came here with a lot of men…so this place was vacant, they didn't want anybody staying here. There was somebody staying here then they moved her to stay somewhere else. So they wanted this place vacant, but then they wanted to sell this place. So when people wanted to come and stay here without paying money, they said no…But for me I didn't pay that money. Sometimes they take advantage because you're a woman. (Int., Atteridgeville, November, 2018)

One participant highlighted how land in Phomolong gives significant power over decision-making processes. He said, “If you don’t own land here, you don’t have power to control how things are done…” (Int., Atteridgeville, October, 2018). He was specifically referring to how he and his neighbours had repeatedly asked the landlord to fix the toilet door, but to no avail:

> Like you saw with the door of that toilet, it doesn’t close anymore. We asked the landlord to fix it in May, but he keeps on saying that he will send people to fix it. It’s now October and still nothing…my wife doesn’t feel safe when she uses it and I worry that someone might just go in there and hurt her whilst she’s still inside. (Int., Atteridgeville, October, 2018)

The great lengths to which residents go to acquire land reveal the symbolic value of ownership. For both male and female owners, land ownership plays an intrinsic role in the decision-making process of how shared sanitation is used and managed. The subsequent section analyses how land ownership not only shapes sanitation decisions, but how female owners are disproportionately affected because of traditional gender norms and values.

5.2.2.1.1 Decision making between men and women

There were differences in decision-making between men and women. Male owners often made sanitation decisions regarding construction, shifting and repairs whereas female owners sought the help of a male counterpart such as a relative, tenant, neighbour or friend. Ntombi, a 33-year-old female household head inherited a stand from her father. She highlighted that when it came to technical decisions around the toilet, she always asked her father and brother:

> This toilet is a new one; we shifted this one in March. My father and brother did it. If I need something, my father does it. He’ll come from Limpopo and help me. I don’t do it. I don’t know how to do it. (Int., Atteridgeville, October, 2018)

In other instances, women are alienated from the decision-making processes around sanitation construction and repairs. According to Thembi, who is married to a property owner, her husband seems not to want to involve her in the technicalities of their manual flush toilet. According to her:

> He won't tell me where the dirt goes. I'm not sure where he got the pipes, I'm not sure exactly where the sewerage is being collected, but he bought the pipe and put it there. This may be a problem in future when he is not there and I encounter challenges that require solutions. However, he does not see it that way and has made it his sole responsibility. (Int., Atteridgeville, November, 2018)

However, when it came to decisions regarding cleaning, women dominated the discussion whereas men were less involved. The majority of the women, both tenants and owners, pointed to cultural norms as the primary reason they clean the toilet and not their male counterparts. It was also broadly felt that because men were not meticulous when it came to cleaning, the households' hygiene and health would be threatened. The women explained:

> Men don't seem to understand the importance of properly cleaning a toilet. Since the men that I share the toilet with are not married, I tried to show them how it should be cleaned, but I still found urine marks on the floor. I decided to do the cleaning by myself because I have two young children who might get sick if the toilet is not cleaned properly. (Int., Atteridgeville, October, 2018)

> My husband does not clean the toilet because he believes that it's a woman's job. He is the kind of man who understands the division of labour and the different spaces for each gender. It is like women must be in the kitchen and everything…Truly speaking he does not clean, he can flush the toilet when it is dirty, and call for the toilet to be cleaned. He has never used the cleaning brush. I clean the toilet myself…I prefer a clean environment where people will be comfortable. (Int., Atteridgeville, November, 2018)

The sense of how work responsibilities should be divided by gender is generally strong among residents. As highlighted in the excerpts above, sanitation is seen as

the terrain of women, while men prefer to do tasks that are regarded as masculine. However, because of the complex relationship embedded in the land owner-client situation, male tenants still shun away from some tasks that can be regarded as male tasks.

For instance, Luthando's toilet has no roof because it was damaged by a hail storm. Her male tenants were tasked with the responsibility of fixing the roof and other technical duties because they believe cleaning is a woman's responsibility. However, a year had passed since the roof was damaged and the men still had not fixed it. She understands the situation though and explained it in a rather diplomatic way. She told the researcher:

> I once discussed the roof situation with my male tenants since they have refused to clean the yard and the toilet, which they say is a woman's job. They say they would fix the fence, fix the electricity or do anything manly, but not cleaning the yard. They had promised to fix the roof of the toilet which was damaged last year by hail. However, they have failed to do so because they say they are always busy. Sometimes you cannot force someone to fix it, you know men how they are like, they can promise things, but at the end of the day they don't deliver. (Int., Atteridgeville, October, 2018)

The above explains women's frustration with their male counterparts, and the general lack of power to remedy the situation. The excerpt also shows that despite the presumed gender roles, men have passed the sanitation burden on the women and have shown little regards for sanitation, even where the maintenance of such sanitation require financial contributions. Being a landlord should have afforded Luthando the ability to enforce the agreement with her male tenants. However, it is demonstrative of how female owners' reliance on their male counterparts can de-legitimise their authority and undermine the existing arrangements of shared sanitation.

Such frustrations were also expressed by other women in the settlement. In this environment, toilets are shared and in most cases women, whether property owners

or tenants find themselves sharing facilities with men. These spatial arrangements were especially problematic when it came to shifting, repairing and cleaning of toilets. One female owner was sharing a toilet with four households that were dominated by men, and when the toilet had filled-up and had to be moved, or when it came to cleaning the toilet, these men would not participate. She expressed her frustration:

> In this yard, there is no space where you can stay with your family. There are eight shacks in this one yard and we are all sharing one toilet. There are many men who stay here and they do not clean… When I want to change the toilet, the men do not help. . All they do is just come, do their mess and leave my toilet dirty. They just don't care. (Int., Atteridgeville, October, 2018)

She resorted to locking the toilet, but realised that the men were urinating and defecating around the compound. In the end, she had to let them use the toilet because she has young children and grandchildren who can easily come into contact with excreta and contract diseases.

In spite of these assumed gender roles, the women expressed their desire for their male counterparts to participate in household chores, more so, when it came to maintaining a clean environment since they are also users of the facilities and are equally affected when proper hygienic measures are not followed. One of the women expressed her desire for her men to contribute:

> I would like him to be involved in maintaining hygiene here. There is no harm in cleaning up after his mess. I do not have to clean-up after him. There is a brush. All he needs to do is to take the brush and clean when he sees that the toilet is not clean. It does not take a lot of time. What it does is that it contributes to a hygienic environment and no one is forced to see someone's waste. However, men will not do it…Of course I want my man to assist me, and meet me halfway. If I am cleaning the house, he can help with the children and the dishes. However, all he does is watch television. I do not find it easy to talk to him about these things. I just do what I am supposed to do, but deep inside I do want him to help. (Int., Atteridgeville, November, 2018)

There were a few cases where men were involved in the cleaning process. In both instances, the households were single male headed because the men were divorced from their wives. For example, as a single father, Bongani had to emphasize to his tenants the importance of properly using and regularly cleaning the toilet because he had a young child.

Xolisi on the other hand, owned his property, but did not have tenants. However, the adjacent property was owned by an absentee landlord and was being rented out to female tenants. Unfortunately, the property had no toilet which forced the women to ask Xolisi to share his toilet with them. According to Xolisi, he believed that the [absentee] landlord had no incentive to construct a toilet for his tenants because he assumed that the tenants would use his toilet. Xolisi was clean and expected people that used his toilet to care for it and demonstrate basic hygiene.

However, he claimed that the women's consistent failure to maintain the toilet in hygienic standard once forced him to lock them out. He explained:

> We do not view hygiene in the same way. I am a very clean guy and I always clean the toilet, but these women are very careless and dirty and I don't like that. They leave the toilet in a mess and I always have to clean after them, and I don't think it's good for a man to clean up after a woman… What makes it worse is that these are women; you don't expect such behaviour from them. It got so bad that I took a chain and locked the toilet… After a while, they came back and begged me to remove the chain and promised that they would start cleaning after themselves. I thought it would change, but things are still the same. (Int., Atteridgeville, October, 2018)

According to Xolisi, when he was still married, his wife would ensure that the women maintained the toilet in a hygienic standard. However, since his divorce he felt that he cannot be involved in monitoring and enforcing good S&H practices among them because "…as a man, I cannot fight with women about cleaning the toilet…it's not in my culture." (Int., Atteridgeville, November, 2018)

At one time during fieldwork, he was observed putting on his gloves and ready to clean his toilet. He purchases toilet cleaning chemicals, and after interacting with him over a period of time, the researcher realised that his toilet was one of the safest, and could be used with confidence, even in an informal settlement.

What the discussion above also shows is that conflicts abound over shared sanitation facilities in the informal settlement. In this environment of informality, where the state does not provide any services, it is common practice to share one's toilet with individuals or groups that do not have facilities of their own. However, maintaining a hygienic environment, particularly cleaning of shared toilets emerged as the foremost challenge among households. Research has shown that the number of households sharing a sanitation facility plays a significant role in either lessening or heightening tensions around cleanliness. Out of the seven households owning and sharing toilets, three were forced to restrict access because of unhygienic practices.

This was the case for Luthando, who in addition to four households shares her pit toilet with her neighbours who do not have sanitation facilities of their own. In the past two years, she has had to shift her pit toilet twice because the pit had been filling quicker than usual. After a while she had to limit toilet access only to her tenants. Her breaking point was when one of her neighbour's relatives not only used the toilet without her permission, but left it in a deplorable condition. As she put it:

> One of my neighbours told his relative to use my toilet. I wasn't home at the time, but one of my tenants told me that the woman came and used the toilet. She did not even bother to ask for permission. The toilet was in a complete mess. She left vomit residues everywhere and did not bother to clean. I had a conversation with my neighbour who admitted that he had given her the permission to use the toilet. Because of that experience, I barred my neighbour and his visitors from using my facility. (Int., Atteridgeville, November, 2018)

Due to the conflicts that abound over shared sanitation, the first port of call for sharing households is to establish rules and guidelines pertaining to use and

cleanliness. One property owner assumed that, after her tenants moved in, she would not have to explain to them about properly using and cleaning the toilet because she felt it was common knowledge and basic etiquette. However, after several incidents of people leaving the toilet dirty and refusing to take responsibility, she resorted to using a duty roaster, which tasked each individual with a day they were supposed to clean the toilet and the yard. It has enabled her to routinise good sanitation behaviour with regard to cleanliness and hygiene. She complained:

> I felt that I shouldn't have to tell them that the toilet needs to be cleaned. They would always leave the toilet dirty which then forced me to create a timetable. So if the toilet is dirty it's now easier to know who did not perform their duty. (Int., Atteridgeville, October, 2018)

On the other hand, for Thembi, creating a duty roaster did not work as planned. Thembi and her husband rent space to two other households headed by women. Unfortunately, these tenants have never agreed on how the toilet should be maintained. The women constantly argue between themselves, and as a result fail to do toilet cleaning duties. She explained the reasons for the conflict and failure to clean:

> My tenants do not get along when it comes to cleaning the toilet. I thought since we are all women, it would be easier to divide the cleaning tasks around the yard and the toilet. One woman claims that because she's working, she has no time to clean, but this does not sit well with my other tenant who also works. She feels that even though we have work responsibilities, we can all still make time to ensure that the toilet and the yard is kept in a hygienic state. However, the other woman has failed to understand the situation. This is generally tough on my side because she feels that she cannot be cleaning for another woman, whose children also use the toilet. (Int., Atteridgeville, November, 2018)

As the property owner, Thembi has to find a way to manage these conflicts and ensure that no one feels like they are doing work for another person. She continued:

> The other woman has asked me a number of times to intervene and talk to the defaulting woman about her duty to clean the toilet. I have not done so because I do understand the situation. This would not solve the problem, so I decided that I would clean the toilet during the days when she is supposed to clean. For me, this is not a problem because I cannot expect her to clean the toilet at night. Unfortunately, this has not satisfied the other tenant, who has also decided to boycott toilet cleaning duties. (Int., Atteridgeville, November, 2018)

Since this is her home and she has responsibilities and oversees the general housekeeping of the home and ensures that the environment is clean and conducive for her children and husband, she has chosen to take on the cleaning duties. However, this has encouraged free riding by her tenants.

5.2.2.1.2 Decision-making between owners and tenants

The majority of landlords and tenants disagreed about sanitation responsibilities especially when it came to construction and repairs. Tenants often believe that because their residence in the informal settlement is temporary, they should not have to bear the capital costs of constructing, repairing or shifting a toilet. When asked about shifting the toilet, one tenant said:

> It is the landlady's responsibility since she owns the place. Maintenance of the facilities is her duty because we only rent. Once we can no longer afford rent, we are kicked out. So I see no reason why I should invest time and money in a toilet I won't be able to enjoy if I am kicked out. She must employ someone to do the job. I will also help if I am paid for it. (Int., Atteridgeville, October, 2018)

However, some land owners believed that sanitation infrastructure is a responsibility of everyone involved – both land owners and tenants who use it. One live-in landlord expressed the belief that the responsibility for repairing and shifting filled-up toilets should be shared by both herself and her tenants:

> There are those people who say as long as I am staying here, I don't have to fix anything. The landlord must do that. She must pay someone to come and fix or she goes and fixes it

> herself…but I told my tenants that if the toilet gets blocked, we all have to figure out how to fix it. (Int., Atteridgeville, November, 2018)

While tenants believe that they have no duty in constructing infrastructure they use for sanitation, they still have a duty to maintain and manage it once it has been made available. This task falls squarely on the shoulders of women.

Wegelin-Schuringa and Kodo's (1997) research on tenancy and sanitation provision in informal settlements in Nairobi revealed that because absentee landlords are primarily driven to optimise income, they often make decisions that are out of touch with the reality of the inhabitants. In this study, on one property there were four households and a church that was also renting out a makeshift hall to conduct its weekly services. However, because the landlord had only built two manual flush toilets, it put a strain on the existing sanitation facilities. One female member of household complained:

> On Sundays we have a lot of people coming to church, so they also use the toilets. That is where the problem starts. The congregation is big and mixed. There are children and adults, both male and female – all sharing the toilet facility with us. Children will mess-up the toilet and their parents do not even take the initiative to clean up or monitor the use of the facility. Some will leave the toilet without flushing away the waste. Then we stay behind and then we have to clean. (Int., Atteridgeville, October, 2018)

This excerpt reveals the sanitation burden that women, who are mainly renting facilities, have to bear to maintain basic sanitation. Tenants in this study paid rentals to absentee property owners. However, absent property owners are out of touch with realities in their rented properties, and are mostly concerned with collecting rent. They may allow facilities to degenerate because they are not affected. This often forces concerned tenants to assume the responsibilities for the repairs.

One female household head revealed that she and three other households were forced to fix the manual flush toilet they share after it developed problems. As a

mother to three children, she explained that she wanted to ensure that her children would not be at risk of contracting diseases such as cholera or diarrhoea. However, she and the other households negotiated a cost recovery agreement with the landlord as they felt that he was supposed to fix the toilet. She explained:

> There was a problem with the toilet pipe and we fixed it. So we did not give him the rent money…we won't pay him until the money is recovered. (Int., Atteridgeville, November, 2018)

Table 5.2 summarises the incentives or disincentives of sanitation investment for tenants and property owners. Unlike absent property owners, resident property owners are incentivised to invest in good sanitation and regulate sanitation behaviours and practices because they consider themselves permanent residents of informal settlements and are motivated by the desire to make their properties appealing to potential tenants.

Table 5.2: Sanitation investment incentives/disincentives for major stakeholders

Tenants	Live-in landlord	Absentee landlords
Tenants have the strongest incentives to improve infrastructure but have limited willingness to invest in their dwellings and immediate environment due to several	Live-in landlords have greater incentives to invest as they share the same environment, if not infrastructure, as the tenants.	Absentee landlords do not have to tolerate poor living conditions or share any benefits of upgrading the dwelling and immediate environment.

interlinked factors: • Shorter duration of stay • Lack of social cohesion • Autonomy Tenants are unwilling to invest in, but willing to pay for, services.	High demand and fast turnover will act as disincentives to improve the unit or infrastructure. Property owners are likely to be averse to investing too heavily in dwellings in informal areas to stay 'under the radar' of the authorities (i.e. to avoid repercussions such as tax, rent control, regulation compliance or repossession of the land if seen to be operating profitably). In some cases landlords also own local standpipes and 'public' toilet facilities. There is little incentive for them to encourage state provision of these services, as they would be in direct competition with the services they provide. Space is also at a premium, and any space dedicated to infrastructure may mean loss of rental space.

Adapted from: WSUP (2013)

One tenant who is formally employed as a clerk by a governmental department was able to buy a car and send remittances to his extended family and in-laws. Ntuli, a single mother, argued that because Phomolong offers a cheaper housing alternative, she only pays R250 per month compared to the expensive rentals on the formal housing market. Staying in Phomolong has therefore enabled her to not only send remittances back home in Limpopo, but she is also in the process of building a house for her family.

> The rent I pay here is so cheap. The money I have saved has helped me build a house back in Limpopo. I have to think what's needed back home. Phomolong is not my home; I just came here to push life. (Int., Atteridgeville, November, 2018)

This excerpt reveals the perceptions shared by most tenants living in informal settlements. Tenants in this study did not consider Phomolong as their permanent home; instead, they regarded it as a means to an end. Thus, they were unwilling to incur sanitation costs relating to the construction and maintenance.

5.2.3 Coping mechanisms

The majority of sanitation facilities in Phomolong and Mshongo are makeshift and outdoor. As a result, women lacked the privacy they needed when using the toilet during the day. For one household, their pit toilet was built along a busy pedestrian route, but it did not offer sufficient coverage because it was built from old metal scraps and cardboard paper. It was observed that even when inside, pedestrians were able to peer through the old metal scraps. According to the participant, before using the toilet, she always has to look around to ensure that no one was walking by. Moreover, when she was inside she was keen to get the process over as quickly as possible. She said:

> There is a dust road behind my house and a lot of people use it. I have to make sure that no one is around when I want to use the toilet. When I'm inside, I have to be fast so that people don't see me. Sometimes I just want to be able to use the toilet without worrying about who could see me. (Int., Atteridgeville, October, 2018)

Figure 5.6 Security challenges of toilets

Source: Author (2018)

Some of the women opted to use the toilet at night as the darkness offered some form of privacy which is important to them. Although women's need for privacy is, to an extent, guaranteed by the nightfall, using the toilet at night makes them more vulnerable. Thus, security was cited as the foremost challenge when using shared sanitation facilities at night. Nobuhle resorted to using a bucket toilet at night after catching an unknown man using her toilet. She is also especially vulnerable because she stays near three bars that are well-known targets for armed robberies and other criminal activities. She said:

> Along this road, there are 3 bars which are always being targeted by robbers. Sometimes I hear gunshots going off in the middle of the night…there was a time when I found a drunken man using my toilet and after that I just stopped using the toilet at night and started using the bucket. The bucket is not nice to use, but at least that way, I'll be safe. (Int., Atteridgeville, October, 2018)

More specifically, female-headed households cited security as the main challenge of using sanitation facilities at night because they do not have male partners to escort them to the toilet. A month before this fieldwork commenced, a woman was attacked in the early hours of the morning as she was entering her shack. As a result, there was significant apprehension among women in Phomolong in the weeks following the attack. Married women, however, relied on their husbands when they needed to use the toilet at night. But some like Thembi, who lives in a fenced compound, still ask their husband to accompany them when they need to use the toilet at night.

Linda, who was mentioned earlier as having to walk twenty minutes to the water tanks added that it is increasingly difficult for her to fetch water especially when she is menstruating. She revealed that she suffers from painful menstrual cramps to the extent that she cannot walk to the water tanks. Moreover, because she has a heavy menstrual flow, her toilet use increases which directly affects her water usage. According to her:

> My period really makes it difficult for me to cook and clean for my family. The first few days the pain is so bad that I can't walk, which means I cannot fetch water…my flow became very heavy after having my second child and I now use a lot of water for the toilet and bathing. (Int., Atteridgeville, October, 2018)

She considers the fact that her neighbours are predominately single mothers as the reason why there is a shared understanding of the sanitation burdens they face. She said:

> The ladies here really helped me. When I‟m on my period, they fetch water for me because they know I am unable to walk because of the pain…Though we come from different places, being single mothers living in Phomolong has taught us that we need to be there for one another. (Int., Atteridgeville, November, 2018)

Thus, these relational ties with her female neighbours have helped her cope with the burdens of shared sanitation, especially when she is unwell. Her increased need for water is not only crucial for her personal hygiene, but to ensure the toilet remains clean and usable for her young children and the three additional households she shares with. Informal communities are noted for their strong social cohesion. This is achieved through social networks, a process which tends to buttress the difficulties of informal living.

This section sought to highlight that sanitation processes in Phomolong are underpinned by self-management because of limited municipal support. The result of which has led to the breakdown of relations between residents and the municipality. This is explored in detail in the following section.

5.3 The relationship between residents and the state

In the absence of a coherent sanitation policy for informal settlements, many of Phomolong's sanitation responses are self-managed. In the words of one participant,

"Phomolong teaches you to depend on yourself; the government doesn't care, so you have to find your own way to survive." (Int., Atteridgeville, October, 2018). Toilets in Phomolong are built from old toilet parts, wood, metal sheets bought or salvaged as seen in Figure 5.3. Although these makeshift toilets are often improvised, they are not necessarily temporary because they have become a routinised and permanent sanitation solution (McFarlane *et al.*, 2014).

Self-management has allowed residents to assert their agency over Phomolong's informal urban sanitation processes. Based on Cruz and Forman's (2015:211) argument, self-management demonstrates Phomolong's "…creative intelligence and entrepreneurship…" However, Phomolong's ability to assert its agency has, to an extent, legitimised non-intervention which has led the community to perceive the state's lack of support and absence as abandonment. Whilst self-management has allowed Phomolong residents to mitigate poor sanitation delivery, the nature of their makeshift toilets poses significant health risks and social implications for residents especially women and children.

South Africa's sanitation approach often focuses on how informal settlements contravene formal rights, instead of focusing on how their lack of formal rights requires protection from the infringement of rights by both state and non-state actors (Huchzermeyer, 2003). The state's approach, as detailed in Chapter 4, not only shapes sanitation processes in Phomolong, but has had wider implications on how the surrounding formal communities view informal settlements.

The generic labels of "formal" and "informal" have played a significant role in how informal settlements are perceived. For example, the term *mukhukhu* is widely used as a derogatory term and is synonymous with spaces of nuisance and dirt. Therefore, because the pit latrine is widely defined as the standardised form of informal urban sanitation, its association with *mukhukhu* has often produced assumptions and stereotypes of informal settlements as spaces that exclusively relate to poverty, lawlessness and crime. These prevailing assumptions have

produced tensions between informal and formal settlements where the latter group has demanded for these informal living spaces to be sanitised, either by relocation or by formalisation.

The reality in most urban informal contexts often sees the urban poor paying for services they are entitled to as citizens. Patron-client relations are widely used in Phomolong as they enable residents to strategically position themselves with key political figures who can make their life easier. However, because tenure insecurity is a lived reality for most households in informal settlements, it allows for exploitation by politicians. It is common practice for residents to bribe municipal officials to receive repairs for infrastructure or access basic services. During the researcher's frequent visits to Phomolong, one area had not had its refuse collected for almost three weeks and was becoming a health hazard for the people living in that area. After numerous attempts to engage the City's waste department, the municipal workers only came to collect the refuse after they had been offered a "cash incentive" by the residents. One of the residents said:

> The people from Tshwane said that they weren't able to collect the rubbish because they didn't have enough cars and they were busy with other areas…but after we said we would pay, they came that same day and cleared the area…That's how life in Mshongo works. (Int., Atteridgeville, November, 2018)

According to Crush *et al.* (2019), informal settlements have high rates of patronage as politicians and municipal workers exploit the vulnerability and marginalisation of poor urban communities. It was noted among participants that political figures would only express concern over the community's challenges and conduct regular visits to Phomolong just before and during elections. According to Xolisi:

> Every time there's an upcoming election, you'll see politicians moving around. Since they know that our biggest needs are houses, water, sanitation and tar roads, they'll use those things to get us to vote for them. Then after the elections, they cannot be found. (Int., Atteridgeville, November, 2018)

For Luthando, having grown up in Phomolong, the visits from political parties during election season have become routinised. For several years she has witnessed how both the ANC and the DA have made numerous promises to the community, but continually fail to meet them. In her words, “Politicians are all the same. They only remember us towards elections.” (Int., Atteridgeville, November, 2018)

Joshi *et al.* (2017:91) observed that urban poor communities are often forced to “…accept, and even expect…limited support...” Residents in informal settlements point to tenure insecurity as the reason why they are alienated and treated as second-class citizens. They are unrecognised by law and are therefore not entitled to access basic services available to other communities. These residents do not pay rentals and are considered to be free riding on others (Crush *et al.,* 2019). On the other hand, participants argued that as South African citizens, they were entitled to and expected basic services to be provided.

Participants highlighted that the City’s waste department had stopped collecting refuse consistently, which had forced residences to dispose of their waste along the street. While this is expected, it is not ideal in any living space. One of the sections in Phomolong had become a health hazard and unsuitable for the habitation of children, who mostly play outside. Residents blame the DA-led council for their plight:

> Since the DA took over refuse collection has been a problem. When the municipal trucks don’t come, people start throwing their rubbish in the street and it starts accumulating. Sometimes I see children playing there which is very dangerous. (Int., Atteridgeville, November, 2018)

It would appear that the ANC-led municipality used to provide some degree of waste collection services in the area. However, dissatisfaction with the municipality has increased since the DA took over Tshwane in 2016. The DA’s neoliberal philosophy of cutting back on unnecessary expenditure has had an adverse impact on service delivery and it has been widely felt in urban poor areas.

5.4 Chapter Summary

This chapter presented the micro level analysis of the study that explored shared sanitation dynamics between and within households in the Phomolong section in Mshongoville in Pretoria West. Shared sanitation in informal settlements goes beyond the presence or absence of a toilet, thus certain social issues affect how households access, experience and manage shared sanitation. Central to Phomolong's informality is appreciating that self-management underpins the community's sanitation dynamics because of limited municipal support.

The chapter revealed that certain social issues namely; the nature of the sanitation facility, household type, ownership and tenancy, gender and decision-making processes, influence and shape shared sanitation dynamics in Phomolong. These social issues overlap and they either produce conflicts or notions of community that then determine whether users invest in or practice good sanitation practices. Together with the principle of self-management, households are either empowered or disempowered to decide on who can access sanitation facilities, how sanitation benefits and costs are shared and disciplinary measures to counter 'bad' sanitation practices.

The gender dimension was especially useful to explore because of its centrality to this study. Whilst the inadequacy of sanitation in Phomolong affected both women and men, women's grievances against informal urban sanitation differed in comparison. Given women's specific challenges, they have had to find alternative coping strategies to adapt to the challenge of sharing sanitation facilities in an informal urban environment. The main challenges relate to security, privacy and dignity, more so, with the latter because of the use of the bucket toilet. In addition, the gendering of sanitation activities such as cleaning, maintenance and repairs confined women to positions of exploitation, vulnerability and dependency within the household and the community.

The chapter concluded by discussing how informal urban sanitation processes contribute to the formation or in this case, the breakdown in the relationship between the state and Phomolong residents. The municipality's sanitation approach has enhanced feelings of alienation because its technocratic approach of dealing with urban informality has forced households to adopt alternative strategies to make their lives in Phomolong easier. The prevalence of patronage in Phomolong stemmed from the absence of a coherent sanitation policy. The CoT's sanitation approach is one that seeks to hide or ignore the needs of people living in informal settlements. Although South Africa's overly liberal legislation guarantees basic service provision to previously challenged households, in practice, urban poor communities are often treated as second-class citizens as they have to negotiate for services they are freely entitled to.

CHAPTER SIX

DISCUSSIONS AND CONCLUSIONS

6 Introduction

This study was motivated by the growing importance of informal urban sanitation as a policy, economic, political and social issue. Shared sanitation has become the hallmark of sanitation practices in informal settlements, given its pragmatism and cost efficiency. The study's primary contention was that whilst the inadequacy of sanitation in South Africa's informal settlements is widely felt, gender is a critical aspect, which has often been overlooked as it differentiates how urban poor men and women access, manage and experience shared sanitation. The central objective of this study was to understand how men and women access, experience and manage shared sanitation in informal settlements. It particularly explored three broad themes: firstly, the development of sanitation policy in South Africa; secondly, Phomolong's sanitation experiences and management and finally, residents' notions of citizenship and inclusion. This chapter examines these broad themes by discussing how they overlap and the sanitation practices they produce as a result. The chapter will conclude by discussing the policy implications and potential areas for further research.

6.1 Discussions

Sanitation in South Africa's informal settlements is not simply about the inadequacy of toilets. Instead, it is a complex and interconnected process, which is embedded in conflict between pre and post-apartheid ideologies and planning models, tenure rights and a host of social issues. This section examines the three major themes that emerged from the study.

6.1.1 The development of sanitation policy in South Africa

Contemporary sanitation policy and practice in post-apartheid South Africa should be understood within the historical context of urban segregation which was well-established in the sanitation syndrome. The outbreak of the bubonic plague was a

turning point in how sanitation was conceived. It introduced new sanitation practices and modes of thinking that revolved around race, urban space and health and hygiene. The outbreak enabled the NP government to entrench a racialised approach to achieve clean and orderly cities through formalised restrictions and the mass relocation and separation of non-white populations to racially designated zones.

The introduction of the Native Urban Areas Act of 1923, Group Areas Act of 1950, the Bantu Authorities Act of 1951 and the Water Act of 1956 were key pieces of legislation that shaped sanitation approaches toward poor urban areas. These laws gave the national and local government substantial power to determine who received water and sanitation resources and infrastructure as well as redirect the fiscal resources meant for poor urban areas to the white Republic's projects. As a result, in black-occupied urban areas, the response to inadequate sanitation was through self-management. It was during this period where open defecation and makeshift pit latrines and bucket toilets were at their peak.

Whilst the institutionalisation of urban segregation had colonial roots, it was also fuelled by the pursuit of high modernist principles and theories in order to recreate the urban landscape using scientific knowledge (Scott, 1998). The integration of scientific tools in urban planning is characteristic of conceived space, which is necessary to "…manipulate those who exist within them." (Lefebvre, 1991:222) The practice of spatialising race was based on quantitative and scientific knowledge and drew particularly from mathematicians, designers and geographers. As a result, many of these conceptions have echoed into post-1994 South Africa.

The proliferation of urban informality in democratic South Africa stands to threaten the need for legibility as national and local policies seek to create clean and orderly urban spaces. South Africa's sanitation approach for informal settlements is characterised by a technocratic top-down policy approach. Given that urban informality is often represented as "dysfunctional" and "illicit", it has fuelled

misconceptions at national and local level and often justified limited sanitation support or non-interventionism in informal settlements.

Cruz and Forman's (2015) argument of overly legalistic approaches have been observed in South Africa's sanitation policy and practice toward informal settlements. Termed the "entrenched state of the art", top-down technocratic and legalistic approaches ignore that informal settlements have something to offer because they are misconstrued as illegitimate and crime-ridden spaces. In addition, policy often ignores the "…perspective of those needing to cope with urban informality on a daily basis…" (Huchzermeyer, 2003:334). As a result, opportunities for co-production are seldom explored resulting in sanitation policy lacking social relevance.

One of the tenets overlooked in sanitation delivery in South Africa is the multi-dimensionality of informal urban sanitation. In addition to it being connected to several national departments, it is embedded in a host of complex issues such as property ownership dynamics, topography, gender, spatial histories, politics and community dynamics as highlighted in Chapter 5. Therefore, to view sanitation in informal settlements as a lack of toilets and regular refuse collection undercuts that sanitation is a process that is lived, experienced and managed on a daily basis.

One such policy has been the FBSan that was designed to cater for poor urban communities that are unable to afford basic sanitation services. In accordance with the Constitution, Water Services Act and Municipal Systems Act, this policy mandates municipalities to provide basic sanitation services namely: a VIP toilet, refuse collection and removal of human excreta and wastewater from the premises where necessary. The policy, however, is ambiguous in terms of standards and compliance and as a result, municipalities have been able to 'cherry pick' specific stipulations that are aligned to their own regulations and standards.

At the local level of government is where the need for orderly and aesthetic cities has played out. The municipality's regulations and by-laws may legitimise exclusion or limited support for informal settlements that are not recognised or authorised under

Section 2 of the By Laws relating to the management and control of informal settlements (CoT, 2017). The adoption of CIDs has ushered in a contemporary version of the 19th century sanitation syndrome and the de facto existence of Apartheid urban policy (McFarlane & Silver, 2016; Swanson, 1977). Informality, according to Lutzoni (2016:9), "…is not outside formal systems, but is produced by formal systems and always connected with them."

The labelling of CIDs as counter measures against crime and grime has, to an extent, advertently labelled informal settlements as spaces of dirt, disorder and lawlessness that have to be sanitised. Such labels have been destructive especially at community level, where surrounding areas in Atteridgeville have called on the CoT to sanitise Phomolong (and the broader Mshongo area) by means of removal or relocation. Moreover, in addition to the DA's adoption of a neoliberal statecraft, these city ideologies have profoundly shaped notions of citizenship and inclusion. For example, the participating households described the CoT as negligent and detached from their daily and lived experiences.

State policy towards informal settlements resonates with De Soto's (1989) earlier work on urban informality that favours a legalistic approach. Based on global trends, the government's policy has moved toward formalising informal settlements *in situ* through titling, legalisation and formalisation of tenure. However, the inability of developing governments to address urban informality emerges from viewing it along formalistic lines (Cruz & Forman, 2015). Similar practices have been seen in South East Asia, the Middle East and East Africa. However, such a technocratic approach often discounts the existence and functioning of the informal land market which is often the de facto regulator of land transactions. This invisible market is recognised by inhabitants and regarded as the leading authority of how land is used and accessed.

6.1.2 Phomolong's sanitation experiences and management

Land is at the centre of sanitation in informal settlements because it sheds light into how the informal urban land market works for the poor (McFarlane *et al.*, 2012). More specifically, tenure status or lack thereof is a crucial determinant of how shared sanitation perceptions and experiences are formed. Chapter 5 termed this interaction as rented and owned sanitation. These interactions determined the extent and willingness of households to practice good sanitation and hygiene and invest in the functionality and maintenance of sanitation facilities.

Although land in Phomolong belongs to the government, inhabitants' perceived ownership has played a significant role in influencing sanitation sharing dynamics. For instance, live-in property owners in Phomolong demonstrated greater incentive to make good sanitation investments based on perceived ownership, financial standing and asset protection. To a certain extent, it has afforded owners to shape and modify sanitation practices. This is the case for land owners who established counter measures to address bad sanitation and hygienic practices by: setting rules, introducing cleaning timetables and when necessary, permanently or temporarily restricting sanitation access.

Ownership in Phomolong carries weight and is symbolic in the sense that the person who installed the toilet is viewed as the final authority in how sanitation responsibilities and tasks are shared, monitored, enforced and complied to. However, female land ownership can be undermined by the community's views on gender norms and roles (Datta, 2006). For Meth (2017), it highlights one of the challenges of shared sanitation where female land ownership is perceived as emasculating male masculinity. In some cases, men manifest these oppositions to their masculinity through sexual or physical violence. In this study, these forms of rebellion manifested through refusing to take part in good sanitation and hygienic practices.

Chapter 5 highlighted several various instances where women and especially men challenged established rules and structures set in place by female owners and it had negatively impacted sanitation practices. In the case of a female-headed household that was sharing a pit latrine with several men, the owner's attempts to counter her male neighbours' unhygienic sanitation practices were ignored. However, in light of this defiance, female owners and tenants were compelled to practice good sanitation by their need for personal security, privacy, comfort and more especially because of the health risks posed to their children.

This study's adoption of gender as a unit of analysis was central to the exploration of shared sanitation processes in informal settlements. Whilst the inadequacy of sanitation in Phomolong affected both women and men, women's grievances against informal urban sanitation differed in comparison. Given women's specific challenges, they have to find alternative coping strategies to adapt to sharing sanitation facilities in an informal urban environment. The main challenges relate to security, privacy and dignity, more so, with the latter because of the use of the bucket toilet. In addition, the gendering of sanitation activities such as cleaning, maintenance and repairs confined women to positions of exploitation, vulnerability and dependency within the household and the community.

6.1.3 Notions of citizenship and inclusion

The relationship between residents and the municipality is weak and significantly strained. Residents in Phomolong perceive limited state support as a daily reality; therefore, patron-client networks have become the norm and have proved useful in sustaining daily living. Developing personal relationships with municipal workers has played an intrinsic role for residents in Phomolong to adapt to informal urban sanitation and make informal living somewhat comfortable. However, the nature of patronage in Phomolong presents a high threat environment for the community as they are substantially dependent on municipal workers for waste collection. Drawing on Shoemaker and Spanier's (1984) assessment of degrees of coercion, municipal workers are able to exert significant control over the community because they play a vital role in waste management.

Through self-management, households demonstrate their agency which allows them to cope with shared sanitation against the backdrop of limited state support. Cruz and Forman (2015:211) observed that this "...creative intelligence and entrepreneurship of informal urban communities…" is often interpreted as the ability of inhabitants to survive on their own. Unfortunately, the resourcefulness demonstrated by households in coping with shared sanitation has romanticised urban poverty and legitimised state non-interventionism. As a result of the municipality's non-interventionism, participants believed that the municipality had forgotten them.

For McFarlane (2008:9), the weak and often contentious relationship between the state and informal communities is because "…people living in informal settlements are often depicted as 'problem' rather than 'citizen'…" Phomolong's right to the city is significantly diminished because it is alienated from the city's resources. The CoT's urban revitalisation models have resulted in the increased exclusion of informal settlements as they are designed to aggressively pursue order, consumerism and hyper-individuality on a massive scale. In light of these aggressive urban planning models, social networks are playing a significant role in enhancing inclusion and identity in Phomolong (Lefebvre, 1991; Purcell, 2013).

Strong social cohesion has become a signifying marker among women who share the burden and challenges of shared sanitation. One area of understanding is menstruation. One woman highlighted that the intensity of her menstruation hinders her from performing some of her daily tasks and chores. As a result, she has come to depend on single mothers who understand the difficulties of living in an informal settlement without a strong support network.

Therefore, in the midst of state neglect and alienation, kinship in informal settlements provides people with a sense of belonging and community. There is a shared understanding among inhabitants that in order to survive in their environment, they have to support one another. This is in tandem with Lemarchand's (1991) argument

about the functionality of patronage and kinship networks in African informal contexts. The role of kinship was especially noted, given the alienating nature of contemporaray urbanisation.

6.2 Conclusion

In contemporary South African society, one of the greatest challenges to sanitation provision is the view that informal settlements are spaces that are counterproductive to orderly cities. This view is a legacy from the segregation and apartheid years and has inadvertently impacted how the democratic state approaches service provision in informal settlements. This study has shown how informal urban sanitation in post-1994 South Africa has become intertwined within a broader post-Apartheid crisis which sees service provision being undermined by the de facto existence of Apartheid era ideologies and planning models.

The study portrayed how some residents have lived in informal settlements prior to 1994 and as a result, they have adapted to limited state support. The division between the haves and have-nots has been extended and possibly, heightened in democratic South Africa. In the case of basic sanitation provision in informal settlement, it presents a critical question to the political will of state officials to ensure universal sanitation access.

For informal settlements, shared sanitation is a daily and lived reality. As the study analysed, households' sanitation needs extend beyond the absence of toilets. Instead, their needs are embedded in a host of complex and interconnected processes such as land ownership patterns, gender issues, a technocratic top down style by the government and their perceived alienation and exclusion. Self-management has put households at the centre of making shared sanitation work. At the forefront of making shared sanitation work, the participating households highlighted the need for users to modify their sanitation practices and behaviour.

One of the critical objectives of this study was to examine how women and men access, experience and manage shared sanitation in informal settlements. Gender differentiates the sanitation needs and expectations for women and men. As highlighted in this study, the challenge of self-managed sanitation has seen women's needs lacking in security, privacy, dignity, usability and cleanliness. The prevalence of traditional values has excluded women from the technical planning processes and dialogue of bringing about efficient, gender-friendly and sustainable-shared sanitation facilities. Instead, they are confined to the sanitation software aspects such as maintaining cleanliness and hygiene, which as this study has shown, can be marked by significant gendered inequalities. As a result, there is a need to realise that both men and women can actively coproduce good shared sanitation practices at the technical and non-technical levels.

6.3 Policy Implications

This study recognises that the legacy of segregation and apartheid have been destructive, more so, in spatial planning and service provision. Understanding urban informality as broader manifestation of the post-apartheid crisis can aid state policies to adopt a more holistic and contextual approach. This sub-section discusses the policy lessons that emerged from the study and certain considerations that may need to be made.

6.3.1 Sanitation is an equally important policy issue

A commonly misconstrued view is that poor sanitation emanates from inadequate water. This has resulted in sanitation being under prioritised and narrowly confined to water issues. South Africa's national sanitation approach has followed this line of thinking and it has seen significant sanitation backlogs especially in peri-urban areas. For example, one of the amendments made to the SDGs was distinguishing water and sanitation as an individual, but equally important priority area. An emerging research area is exploring dry or waterless sanitation technologies which will mostly likely lessen pressure on South Africa's limited water resources.

Current policies have adopted a monotonous one-size-fits all approach, which tends to overlook the ingenuity of informal communities. Policy makers need to recognise this agency as an opportunity to engage and partner with them on how to innovate and expand on the community's existing sanitation practices and structures.

6.3.2 Sanitation: A waste-to-energy solution

Human faecal matter offers alternative solutions that can reshape the negative connotations around informal urban sanitation. As a natural resource, human waste can potentially transform peri-urban communities and bolster economic production by enabling communities to invent new waste management systems, create environmentally friendly fertilizers for food production and generate clean and renewable sources of energy for cooking, electricity generation and fuel for motor vehicles. This will, in turn, counter the increasing food insecurities inherent in urban poor communities and lessen dependence on government sourced service delivery. Thus, the positive yields that informal urban sanitation has can potentially usher a new wave of thinking about urban informality and its role in redefining how to create and empower sustainable communities.

6.3.3 Informal urban sanitation should adapt to gender

Poor sanitation especially affects women and young girls in terms of security, privacy, decision-making, dignity and hygiene. Women are forced to find ways to modify their everyday rhythms and routines to their sanitation environment, but these strategies usually come with some discomfort. There is need for further research on women's different sanitation needs and how the community's sanitation dynamics can be reshaped to align with these needs. In addition, it is imperative to recognise how the heterogeneity of informal settlements and sanitation dynamics impact practices and behaviours. The limited presence of gender and urban informality issues at policy level needs to be reviewed. As this study has shown, gendered differences in sanitation activities often see women being exploited, excluded and confined to positions where their sanitation needs and knowledge are excluded from decision-making processes.

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APPENDICES

Appendix 1: Letter of introduction

City of Tshwane, Atteridgeville Municipal Office

32 Komane Street

Atteridgeville, Pretoria

REF: PERMISSION TO CONDUCT RESEARCH IN PHOMOLONG INFORMAL SETTLEMENT, ATTERIDGEVILLE

Dear Sir/Madam

My name is Tapiwa Shoniwa. I am a Masters student in Development Studies at the University of Pretoria. I am conducting a study titled: *Improving the quality and acceptability of shared sanitation in informal settlements.* The study explores the role of women in changing conceptions around the quality and acceptability of shared sanitation in South Africa's urban informal settlements. I require the participants' views on their current sanitation conditions and gender dynamics within Phomolong informal settlement. I am kindly requesting permission to conduct face to face unstructured interviews with 9 households in Phomolong informal settlement. Their participation will not offer direct benefits, except contribute to the existing literature on gender-related sanitation issues and informal settlements.

As per the University ethics protocol, I will not offer incentives to persuade the people to participate. The participants I intend to interview are not under 18 or mentally and/or legally incompetent to participate and the study will not cause harm or risk the participants in any way. Furthermore, I will treat the information gathered with strict confidence and it will be held securely on an external drive accessible to myself and the research assistant. Lastly, I will not use any identifying information such as the participant's name, but I will use pseudonyms for all participants.

This research is purely for academic and archiving purposes. The information that I am going to gather from Phomolong informal settlement will be protected and stored at the

University's Department of Anthropology and Archaeology for a minimum period of fifteen years.

Below, I have attached the researcher and supervisor's details should you require any further information.

Researcher: Tapiwa Shoniwa Phone number: 078 850 1465 Email: tshonz.shoniwa@gmail.com	Supervisor: Prof Vusilizwe Thebe Phone number: 012 420 3526 Email: vusi.thebe@up.ac.za

Your assistance will be greatly appreciated and will be immensely beneficial to my study.

Sincerely,
Tapiwa Shoniwa

Appendix 2: Consent form for key informants

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Department of Anthropology and Archaeology

Name: Tapiwa Tania Shoniwa

Student number: u13141083

Cell: 0788501465

E-mail: tshonz.shoniwa@gmail.com

[___________________________]

Dear Sir/Madam

INFORMED CONSENT BY RESEARCH PARTICIPANT TO PARTICIPATE IN THE RESEARCH

PROCESS

Thank you for your involvement in the proposed study. It is ethical practice to get informed consent from a research respondent prior to the commencement of a research initiative. Informed consent entails the following:

- Title of the study: Gender and informal urban sanitation: Improving the quality and acceptability of shared sanitation in informal settlements.
- Purpose of the study: The current study is being undertaken as partial fulfilment of a Master's Degree in Development Studies at the University of Pretoria. The purpose of the study is to explore the role of women in changing conceptions around the quality and acceptability of shared sanitation in South Africa's urban informal settlements.
- Procedures: The researcher will conduct semi-structured face-to-face interviews, which will be recorded by means of an audio recorder to obtain more accurate and detailed responses.
- Risks and discomfort: The researcher does not foresee any risk pertaining to the key informants participating in the research. The dissemination of the information will not pose any risk to the participants.
- Benefits: There are no tangible benefits or incentives available to the participants of the proposed study.
- Participant's rights: The participant is free to withdraw from the study at any stage of the study. As participation is voluntary, no negative consequences will be imposed on the participant and all data received from the participant will be assumed void.

- Confidentiality: The information collected will be used for research purposes only and completed interviews will not be provided to anyone. All the information will be regarded as personal and confidential. Confidentiality pertains to the manner in which the participants' information is used and the protection of his/her identity. No names will be mentioned in the interpretation of the data and pseudonyms will be used but, the participant may choose or refuse to have his/her name and professional status disclosed.
- Storage of research data: The data will be stored for archiving purposes only and will not be used for future research purposes. Furthermore, as per University protocol, the data will be stored in the Anthropology and Archaeology Department for a minimum of 15 years.
- Questions and concerns: Should any concerns or questions arise, the researcher and or her supervisor can be contacted on the following cell phone number or e-mail addresses. Tapiwa Shoniwa (researcher) 0788501465 [tshonz.shoniwa@gmail.com] and Dr V Thebe (supervisor) 012 420 3526 [vusi.thebe@up.ac.za]. If you have any questions about the study please contact me or my supervisor.

Please indicate your consent to participation in the interview by signing this consent form.

DECLARATION

I ____________________________understand my rights as a research participant and give consent to participate in the study voluntarily and have received a copy of this consent letter.

______________	______________________	______________________
Date	Place	Participant signature
______________	______________________	______________________
Date	Place	Researcher signature

Appendix 3: Case study consent form

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Consent for participation in an academic research study

Department of Anthropology

PURPOSE OF THE STUDY

Good day! My name is Tapiwa Shoniwa. I am a Masters student in Development Studies at the University of Pretoria. My study is titled: *Improving the quality and acceptability of shared sanitation in informal settlements*. It explores the role of women in changing perceptions around the quality and acceptability of shared sanitation in South Africa's urban informal settlements.

WHAT I WILL DO

I will conduct 30-45 minute face-to-face interviews, which will be recorded using an audio device to obtain more accurate and detailed responses. Your life history will be used as an information source, but the information collected will be kept strictly confidential.

POTENTIAL RISKS AND DISCOMFORTS

There are no anticipated risks attached to participating in this study. If you feel distressed in any way at any point during the interview or after, please let me know and I will share with you the details of Lifeline Pretoria, they will offer you debriefing and counselling services at no cost.

BENEFITS

Your participation in this study will not lead to any direct benefits; but will add to the existing work on gender, sanitation and informality.

CONFIDENTIALITY

The details of your identity will remain confidential throughout the study as all transcripts will be coded such that your identity can not be linked to the transcripts. Pseudonyms will be used to protect your identity in the research. My research assistant will aide me in collecting information and she affirms that she will protect your identity and any information you disclose to us.

PARTICIPATION AND WITHDRAWAL

You may choose not to answer a particular question that has been asked in this study. You may also choose not to participate and you may also stop participating at any time without any negative consequences and your responses will be treated as void.

DATA STORAGE

The results of the study will be used for academic and archiving purposes only. As per University protocol, the data will be stored in the Anthropology and Archaeology Department for a minimum of 15 years.

QUESTIONS AND QUERIES

Should any concerns or questions arise, the researcher and or her supervisor can be contacted on the following cell phone number or e-mail addresses. Tapiwa Shoniwa (researcher) 0788501465 [tshonz.shoniwa@gmail.com] and Dr V Thebe (supervisor) 012 4203526 [vusi.thebe@up.ac.za], if you have any questions or comments regarding the study. It is important that you read this document and understand what is involved before you agree to participate.

If you agree to participate in the study, please sign the consent form attached.

DECLARATION:

I ------------------------------------- declare that:

- This research was explained to me in a language I understand.
- I give my consent to participate in the study on a voluntary basis.
- I am willing for the interview to be audio taped.
- I have received a copy of this consent form.
- I have read and understood the information provided above.

---------------------------- ---------------------------------- ------------------------------------

Date Place Participant signature

---------------------------- ---------------------------------- ------------------------------------

Date Place Researcher signature

PLAGIARISM DECLARATION

UNIVERSITY OF PRETORIA

The Department of ___________________________ places great emphasis upon integrity and ethical conduct in the preparation of all written work submitted for academic evaluation.

While academic staff teaches you about referencing techniques and how to avoid plagiarism, you too have a responsibility in this regard. If you are at any stage uncertain as to what is required, you should speak to your lecturer before any written work is submitted.

You are guilty of plagiarism if you copy something from another author's work (e.g. a book, an article or a website) without acknowledging the source and pass it off as your own. In effect you are stealing something that belongs to someone else. This is not only the case when you copy work word-for-word (verbatim), but also when you submit someone else's work in a slightly altered form (paraphrase) or use a line of argument without acknowledging it. You are not allowed to use work previously produced by another student. You are also not allowed to let anybody copy your work with the intention of passing if off as his/her work.

Students who commit plagiarism will not be given any credit for plagiarised work. The matter may also be referred to the Disciplinary Committee (Students) for a ruling. Plagiarism is regarded as a serious contravention of the University's rules and can lead to expulsion from the University.

The declaration that follows must accompany all written work submitted while you are a student of the Department of ____________________________. No written work will be accepted unless the declaration has been completed and attached.

Full names of student: ____

Student number: ____

Topic of work: ____

Declaration

1. I understand what plagiarism is and am aware of the University's policy in this regard.
2. I declare that this __________________________ (eg essay, report, project, assignment, dissertation, thesis, etc) is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this

has been properly acknowledged and referenced in accordance with departmental requirements.

3. I have not used work previously produced by another student or any other person to hand in as my own.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

SIGNATURE ______________________________