LAND TENURE, TENANCY AND WATER SERVICES DELIVERY IN SOUTH AFRICA

Report to the
WATER RESEARCH COMMISSION

by

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WRC Report No 2358/1/18
ISBN 978-0-6392-0087-3

March 2019

WATER
RESEARCH
COMMISSION

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EXECUTIVE SUMMARY

In urban areas, the removal of apartheid era influx control has meant that Black South Africans are no longer residents but citizens who ostensibly have rights to the city and greater degrees of freedom to establish their own homesteads within or outside of the ambit of the state and the residential property market. The consequence of this has been a reduction to the average household size, increase in number of households and a hyper-growth of the demand for housing and social services relative to the slower pace of the state-led delivery. The net effect has been an increase in backlogs of historically disadvantaged individuals (for this report HDIs) trapped on waiting lists or databases and/or dependent on informal rental and tenure markets (although for some informality is a choice rather than an entrapment). Between 2001 and 2011, formal dwellings increased from 68% to 78% and informal dwellings decreased only slightly from 16% to 14%. These figures mask the prevalence towards informality in urban areas due to rapid urbanization. Bore-Saladin and Turok point out that 1 in 5 households in metros live in shacks, and Cape Metro had the biggest increase (53%) followed by Johannesburg metro (17%). There has also been an increase in the number of household residing in backyard shacks. While metros show the greatest increase in informality of tenure, findings show this urbanization trend is spreading to non-metropolitan cities and towns and smaller towns across South Africa.

Against this backdrop of rapid urbanization, critical leverage for "moving up the ladder" include access to housing, informal settlement upgrades, tenure security, formalization of tenancy and other mechanisms. For residents living in informal tenure and tenancy, the option of infrastructure upgrade requires close examination. Such upgrades entail an incremental approach to housing delivery rather than the delivery of a finished product or house. Given fiscal limitations, the incremental approach ensures a wider spread of financial resources to the benefit of a greater number of shelter deprived households. There also seem to be more plausible opportunities to link housing upgrades with the water and sanitation sector's incremental approach to ensuring the progressive realization of the human rights of secure access to water and sanitation services.

There seems a valid case for considering upgrade options for households living with insecure access to services, particularly those in informal tenure and tenancy settings, however the complexity of these forms of tenure have yet to be fully understood and characterized. Increases in informal tenancy in both formal and informal setting have been less visible and policy options for improved security of access to water and sanitation services even less clearly understood. This is because the livelihoods of many of these residents involve mobility, often straddling the divides or rural-urban areas, formal-informal economies as well as administrative and political boundaries. Tenants living in rural settings seem to be even less visible than those found in urban areas.

Against this background, the project sought to identify key questions that will help to develop policy tools to enable key stakeholders to deal with water and sanitation service

delivery challenges emerging from the scenario of rapid urbanization and de-agrarianisation of the post 1994 South African socio-economic landscape. These tools may help to address the challenges presented by differing formal and informal land tenure and tenancy arrangements.

The study builds on the findings of a previous WRC study undertaken by Dr. Barbara Tapela on Social Protest and Water Services delivery in South Africa' (see chapter 1 and Appendix 1). It examined the policy stress of rising demands for social services and the citizenry's dissatisfaction with unmet expectations. Social protest and other coping strategies and/or peaceful engagement with municipalities formed a key focus. The study found that correlations between protest and dissatisfaction were not that simple. Discrepancies with regard to grievance resolution became somewhat clearer at ward- rather than municipal- or provincial level. From the ward-level vantage point, it was confirmed that grievances over water and sanitation services tended to revolve around quality of access. These grievances are amplified by a host of other variables including the politics of civil society engagement, the role of the social media, and the timing of elections. While these findings were useful in themselves, the analysis fell short of providing the nuance required to develop effective policy interventions.

This study was premised upon the view that any useful analysis of the post-apartheid water and sanitation services delivery challenge necessarily has to move beyond the singular lens on social protest to include a more complex overlay of lenses that include focusing on the micro-level of the plot within urban and rural low- and middle-income residential areas. As key analytical concepts, land tenure and tenancy help to transcend the singularity of the social protest lens.

The 9 key questions this study sought to address can be summarized as follows:

1. What are the challenges presented by formal and informal land tenure and tenancy arrangements in terms of equitable access to water and sanitation for the urban and rural poor, marginalised and vulnerable groups in South Africa?
2. What is the characterization of the mix of land tenure and tenancy arrangements that fall within and/or outside of the ambit of the formal land registry system in selected low- and middle-income areas?
3. What are the patterns of access to water and sanitation services within the mix of formal and informal tenure and tenancy arrangements in these areas?
4. Related to question 3, what is the relationship between tenure security, tenancy and investment in water and sanitation services in these areas?
5. What are the gender and livelihood issues associated with challenges of access to water and sanitation services in the mix of tenure and tenancy arrangements described in the first deliverable report?
6. What could be the appropriate water and sanitation service models for different tenure and tenancy profiles?
7. What are the possible options for reinforcing the strategic capacity of the municipality and service providers?

8. What are the possible options for incentivizing investments by landlords in water and sanitation services?
9. What practical framework can be used to address identified challenges presented by land tenure and tenancy in water and sanitation in the areas described above?

This study anchored in the conceptual framework which locates the relationship between land tenure, tenancy and sanitation services delivery in a rapidly urbanizing and de-agrarianising political economy in terms of an adapted 'hydro-social contract' that exists between the State, Society and Markets. This term refers to the pervading values and often implicit agreements between communities, governments and business on how water should be managed.

This study extended Lundqvuist's depoliticized construct to include 3 key points of departure. The first point is that the South African hydro-contract has not been shaped by the dominant cultural perspective and historically embedded water values but has been molded by a racially based historical political economy governing resource allocation. Given this political history, the complexity of water resource management should not be sanitized and/or under-estimated. The second conceptual point of departure in understanding the triadic hydro-social contract is that it is neither equal in terms of power relations and exercise of rights and responsibilities, nor value free, in terms of ethics, principles, ideologies, interests and motivations. Public statements about the common interest or public partnerships do not necessarily resolve the vulnerability of the hydro-social contract to the perversions of the otherwise well-intended collaborations between States and Markets. As previous research highlights, perceptions of market capture, the collapse of invited spaces and weaknesses in governance and regulatory frameworks strongly explain the increase in civil society mobilisations since 2009, as well as the increased role of media and social protests by citizenry (Tapela et al., 2015). The third point of departure is that the hydro-social contract is transacted through the socio-ecological fabric of space through time. Space, in this study, refers to the physical embodiment of the linkage between land, housing, water resources, water and sanitation infrastructure and social constructs, particularly property rights that the state, markets and society craft. Without security of tenure or tenancy, investment in hydraulic infrastructure becomes untenable and/or insecure. Tenure and tenancy are key-most among common denominators that determine the patterns by which citizenry practically negotiate and attain (or not) secure access to water and sanitation services.

Institutional arrangements and regulatory frameworks do not deliver on the hydro-social contract in themselves. They are animated by governance practices as well as sectoral interventions and investments in land, housing and sanitation services infrastructure, as well as transport and electrical infrastructure. Since governance and implementation functions are often both sites of contention, as well as the resolution, of issues, it seems plausible that a critical aspect to understanding the constraints to secure and equitable access to water and sanitation services lies at the micro-plot level of land tenure and tenancy.

The conceptual framework used for this study is complemented by other analytical frameworks, for example, the Water and Sanitation for the Urban Poor (WSUP) Framework for dealing with land tenure and tenancy in water and sanitation services, as well as the Integrated Framework for Governance and Governability and Sustainable Livelihoods Framework.

Different land tenure and housing circumstances have created a range of challenges for municipalities in terms of both service delivery and urban planning. Among these challenges is both rapid urbanization and along with it increased pressure for land, housing and accompanying services, but also the movement of backyard dwellers onto unoccupied land in the hope that this would speed up access to RDP housing. Key challenges presented by selected land tenure and tenancy arrangements are summarized as follows:

- **Informal Settlements and Informal Dwellings**

Understanding the social dynamics of informal settlements and dwellings is important as solutions that do not recognize that many people are residing in such circumstances are not financially secure will in all likelihood fail. Often the key narrative in policy discourses are that people in informal settlements and dwellings do not want to pay for these services and are freeloading from those who do pay. However, the financial stability challenge entails understanding the diverse circumstances so that water and sanitation delivery models can be designed in financially appropriate and therefore sustainable ways for these settlements and dwellings. This could assist in ensuring financial operations and the maintenance stability for services.

- **Informal Settlements**

Informal Settlements are defined according to South African census documents as 'an unplanned settlement on land which has not been surveyed or proclaimed as residential, consisting mainly of informal dwellings (shacks).

Informal settlements are variously located in diverse urban and rural settings. The types of dwelling are also diverse and include house or brick structures on individual stands or yards, traditional dwelling structures such as huts, apartments within blocks of flats, cluster housing, semi-detached houses, formal houses/flats/rooms in backyards, informal dwellings/shacks in backyards, and informal dwelling/shacks not in backyards.

Government has until recently viewed its response to informal settlements largely in terms of their replacement or eradication by subsidy driven housing delivery. However, given the time-lag in these processes of upgrading has led to the realisation by various stakeholders, including government, that these traditional approaches to informal settlements need to be complemented by an increasingly innovative course of action in which land rights and urban services are continuously upgraded until an acceptable standard is achieved.

Challenges of access to water and sanitation to these areas stem from the departure point that many residing in these areas are too poor to pay for services. However, informal settlements are diverse in terms of economic profile. Yet differentiated tariffs may be prohibitive to administer. Furthermore, in cadastral-based service systems the owner of the property is billed for services, but in informal settlements legal tenure rights are largely unrecognized, making billing difficult. Municipalities need to rethink billing systems in the light of this.

While the national objective remains the delivery of formal titles to land, government's tenure and housing intervention has been a complex process. Because of this, informal settlements land markets remain operational, but their lack of transparency reduces their efficiency and often reinforces problematic power relations in communities. On the basis of this, urban landmark recommends an incremental approach rather than upfront delivery of the final product'. Such alternative ways of recognizing informal settlements and promoting tenure security "allow action that makes a difference right now, rather than at some unspecified date in the future". Progressive realization of rights would include making provision for alternate forms of legal tenure, such as short term leases, rental and servitudes of use. This approach also emphasizes the importance of administrative mechanisms for increasing the recognition of informal settlements and thereby tenure security. Such mechanisms include council resolutions, utility bills, street addresses and letters of occupation.

- **Informal Dwellings**

Within the context of informal settlements, the varied issues such land tenure, access to services, housing structure and regulatory compliance have bearing on the informal dwellings found within them.

As a generalization, government policy and legislation often actively impedes the ability of people residing in informal dwellings located within informal settlements. Although the settlements can be passively accepted by governments, they often remain excluded from access to water and sanitation (Garau et al., 2005). Such exclusions are often done as a way of curtailing the development and the increase of the informal settlement that do not comply with regulations and where land is occupied illegally. However, it is also because government's approach to human settlements housing and basic services has tended to be biased towards a cadastral base for planning purposes not only for settlement and housing but also for the delivery and payment of services (Rubin and Gardner, 2013).

The unplanned nature of such settlements and the unsuitability of occupied land in some cases makes it difficult for municipalities to plan and provide services.

- **Formal and Informal Backyard Dwellings**

Backyard dwellings historically are linked to the deliberate neglect in the Apartheid era of

informal settlements. Some backyard dwellers are renting from landlords that are themselves tenants. For example, in 2011, there were 41 000 backyard dwellers in the Cape Town Metro's 43 500 rental units (Lategan and Cilliers, 2013). Often backyard dwellers have no lease agreements, making dispute resolution difficult and also making tenants more prone to being denied access to water and sanitation services. The case study findings confirm that the vast majority of backyard dwellers reside in backyard structures made either of bricks and mortar or shacks and that not all backyard dwellers are poor. This has implications for the user-pays-principle in terms of water and sanitation, in certain contexts, backyard dwellers can actually pay for the services they utilize. The increase in backyard dwellings could be seen as a way to avoid insecurity of tenure and lack of basic services that characterize informal settlements, however the quality and access of services is highly dependent on the level of service afforded to the primary structure.

- **Cadastral-Based Tenure and Services Delivery**

In South Africa, the institutional structure of the cadastral system is made up of four Surveyors-General and nine provincial Deeds Registry Offices. The cadastral system needs to be reformed in order to address the needs of millions of South Africans residing on land with insecure tenure. Cadastral systems have increasingly played a critical facilitative role as a spatial planning tool that assists in directing the deployment of resources in developing infrastructure. Cadastral systems are thus integral parts of sustainable development and decision making in planning. South Africa's approach to services is largely tied services planned on an individual cadaster registered land parcel with one house and one household. This is not the reality of millions of South Africans residing in informal settlements, informal dwellings and inner city buildings, and the cadastral system needs to be reviewed.

Synopsis of Key Findings

- **Social Water Scarcity**

Social water scarcity refers to the social construct of resource management which is determined by political, economic, and social power dynamics underpinning institutions that provide social relations, security of access to bases of social power and productive wealth, and stability to the social organization of human societies.

The study further highlighted that informal settlements are characterized by a lack of tenure, public spaces and public facilities, inadequate access to municipal services, a lack of convenient and safe access to services and non-compliance with planning and building regulations. The institutional and governance issues are compounded by the analytical/ideological bias in policy analysis towards Cities without Slums, rather than the Rights to the City approach. Cities without Slums is an ideologically imbued policy debate, but, for example, found concrete application in the City of eThekwini's Slum Eradication Policy.

The Apartheid overtones of this debate and related policy embarrassment around slums requires further attention in order to grapple with the political content of the hydro-social contract. In this way, policy recommendations may make for more effective tenure and tenancy governance practices that take note of the social legitimacy of extra-legal tenure and tenancy regimes.

- **The Hydro-Social Contract**

While local government generally claims to be addressing the backlogs and frontlogs to ensuring better land tenure, tenancy and water and sanitation, such pronouncements need to be viewed through the analytical lens of the hydro-social contract. Three tenets of this contract that have been added to the depoliticized version of this term is that the contract is politicized, it is not equal or value free, and it is constructed through the socio-ecological fabric of space, through time.

- The politicised nature of the hydro-social contract in South Africa has led to socio-economic distortions. These are reinforced by global structural inequalities. Thus the dual economy policy lens fails to take cognizance of the fact that the vast majority of rural dwellers are not so much excluded as included on *highly adverse terms.* The problem is more often not that the poor are excluded from particular institutions, resources or larger processes, but that they have been included on inequitable or invidious terms. The case study evidence underlines this perspective. The institutional arrangements and frameworks governed by governance practices depoliticize the contract and so fail to sufficiently address structural distortions.

The case studies underline the importance of an approach which takes cognisance of the importance of the *progressive realisation of rights* for both the urban and rural poor, in addressing tenure, tenancy and water and sanitation challenges.

Key Policy Recommendations

- One of the key shortfalls of policy related to tenure, tenancy and water and sanitation for the poor relates to the lack of planning for changing demographic trends. Planning in this regard needs to take particular note of the Rights to the City approach, as the failure to plan has led to burgeoning informal settlements and dwellings. Policy embarrassment over slums leads to neglect in governance practices and blind spots in water and sanitation delivery.

- The institutional arrangements and frameworks governed by governance practices depoliticize the hydro-social contract and so fail to sufficiently address structural distortions. In order to address these distortions in policy terms, institutional arrangements need to take cognizance of existing social practices including extra-legal property regimes and their importance for securing livelihoods.

- At all levels of policy development on tenure, tenancy and water and sanitation delivery there needs to be an emphasis on both public and private investment in infrastructure to counter-act the current institutional inertia with regard to informal settlements.

- An incremental approach to tenure and service delivery will assist in providing security that can lead to private investment by the diverse range of informal settlement land occupiers.

- In certain tenancy situations, landlords could also be incentivized to invest for better service delivery to tenants (as underlined by the findings of the Tshikota and Chatsworth case studies).

- Urban Development Planning Policy initiatives could conceivably examine how to review the cadastral system, with its bias towards formal land tenure, to be more inclusive of socially embedded extra-legal tenure and tenancy arrangements. The Formal Registry System is also overburdened and needs revision in the light of these findings.

- The BNG Policy shifts need to be enforced more in governance practices as opposed to policy. The BNG approach is linked to the policy analytical approach that stresses tenure is linked to easy access to services and that insecure tenure, or lack of title, severely circumscribes the ability to access services. The plan also focused on minimum standards for housing and further on Informal Settlement Upgrading to meet the Millennium goals of the UN to improve the lives of slum dwellers.

This study has shown through both the analyses of the case study material that Ownership and Use Rights Model that govern South African Tenure and Tenancy requires revision. The study suggests 'use-rights oriented model' that will potentially break down the hegemony of the ownership oriented system.

The case study findings also illustrates that a policy move away from communal amenities in both urban and rural areas is necessary in terms of security of use for a range of users, but also in terms of the financial gains that will be possible from ensuring payment from those who can afford to pay for water and sanitation services in the diverse range of informal settlement land occupiers.

This study has demonstrated and concludes that in policy terms there is insufficient attention paid to the diversity of tenure and tenancy social arrangements that characterize informal settlements and those who occupy a range of informal dwellings therein. Those with income that are prepared to pay for services provided they have security of tenure or tenancy, require recognition in policy design and implementation practices. The case studies underlined that security of tenure defined as not facing eviction, is more important than title. The tenure and tenancy policy setting requires revision in terms of how state policies support a broader notion

of security and a more diverse and pro-poor definition of tenure security.

Additionally, guidelines for minimum standards for the progressive realization of access rights to water and sanitation under varying tenure and tenancy arrangements need to be made explicit.

In Conclusion, this study recommends a practical framework towards addressing the challenges presented by land tenure and tenancy to water and sanitation service delivery for the poor in low- and middle-income urban and rural residential areas of South Africa.

Recommendations towards a practical framework for dealing with these challenges require cognizance of this complexity and diversity, particularly in relation to stakeholder relations, as case study research in City of Cape Town (CoCT), Johannesburg and eThekwini made clear. A practical framework must take into account the different levels of engagement and stakeholder involvement as well as the diverse relationships between stakeholders in the case study areas examined.

The case studies highlight the diversity of informal settlements, dwellings and the relationships within them. This study highlighted that informal settlements are characterized by institutional neglect. The unplanned nature of informal settlements presents serious challenges in terms of service delivery and puts pressure on municipal finances through urban sprawl and the consequent impact on infrastructure development, operations and maintenance. Failure to plan for changing rural-urban demographic trends has been at the heart of the development of informal settlements, informal dwellings and relatedly, the pressure on basic services. Social-water scarcity as a concept illustrates this skewed distribution of services and the historical context of this.

ACKNOWLEDGMENTS AND DEDICATION

The author wishes to dedicate this report to Dr. Barbara Tapela. Dr. Barbara Nompumelelo Tapela is a senior researcher with broad expertise in applied social research, policy engagement, community engagement, stakeholder participation and Stakeholder Analysis. From the basis of Integrated Water Resources Management, Barbara's research interests revolve around analyses of institutional interventions for resolving macro-economic policy challenges in the context of uncertainties due to various drivers of change, including climatic change. Her current, new and envisaged research includes:

- Baseline and scoping study on the development and sustainable use of storage dams for inland fisheries and their contribution to rural livelihoods;
- Social protests and water service delivery in South Africa;
- Water Governance and traditional leadership in South Africa;
- Mobilising ecosystem services to alleviate poverty;
- Managing South Africa's water, energy and food nexus.

Barbara has also extensively facilitated Stakeholder Participation training, roadmap construction and strategy development for international and regional water professionals in the field of transboundary water management for various river basins, including Orange-Senqu, Limpopo, Incomati-Maputo, Cunene, Nile (NELSAP Region, including Kagera Basin).

Barbara had a deep commitment to research on alleviating water service delivery obstacles to the poor and vulnerable. She led bulk of this research and analytical work, and due to illness was not able to complete the compilation of this report. We are grateful for her conceptualization of this subject and in-depth details work on this subject.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY iii

CHAPTER 1: REVIEW OF DELIVERABLE 1, LITERATURE AND POLICY REVIEW ON LAND TENURE AND TENANCY ARRANGEMENTS AND URBAN AND RURAL WATER SERVICES DELIVERY. 1

1.1. Rationale for the Study 1

1.1.1. Background to the Report 1

1.1.2. Key Questions and Findings 3

1.1.3. Research Aim and Objectives 4

1.1.4. Methodology 5

1.1.5. Key Elements of the Conceptual Framework 6

1.2. Perspectives on Challenging the Dualism in South Africa's Space Economy 8

1.2.1. Challenging the Two Economies Analysis and Beyond 8

1.2.2. The 'Inclusive City" 8

1.2.3. Agrarian Reform 9

1.3. Analytical and Policy Perspectives on urbanization and de-agrarianisation challenges and water and sanitation services delivery 9

1.3.1. Post-1994 Socially Embedded Land Markets, Tenancy and Informal Settlements. 10

1.4. The Policy Setting 13

1.4.1. The White Paper on Housing 1994 13

1.4.2. Land Tenure Reform Policies 14

1.4.3. Urban Land and Housing Policy 15

1.4.4. Policy and Institutional Imperatives for Secure and Equitable Access to Water and Sanitation Services. 16

1.5. Key Challenges to Equitable Access to Water and Sanitation Services in Selected Formal and Informal Land Tenure and Tenancy 18

1.5.1. Informal settlements and Informal Dwellings 18

1.5.2. Informal Settlements 19

1.5.3. Informal Dwellings 21

1.5.4. Formal and Informal Backyard Dwellings 22

1.5.5. Cadastral-Based Tenure and Services Delivery 23

1.6. Key Questions Arising from the Tenancy, Tenure, Water and Sanitation Analysis of Deliverable 1 24

CHAPTER 2: TYPOLOGY OF URBAN AND RURAL TENURE AND TENANCY ARRANGEMENTS FOR WATER SERVICES DELIVERY 26
2.1. Background 26
2.1.1. White Paper on a New Housing Policy and Strategy for South Africa (1994) and the Breaking New Ground Plan (BNG) of 2004. 26
2.2. Generic Criteria for Classifying Housing Types 28
2.2.1. Density 28
2.2.2. Income 28
2.2.3. Security of Tenure 28
2.2.4. Legitimacy of Tenure and Tenancy Arrangements. 29
2.3. Housing Typologies 30

CHAPTER 3: MAPPING PATTERNS OF ACCESS TO WATER AND SANITATION SERVICES WITHIN THE MIX OF FORMAL AND INFORMAL TENURE AND TENANCY ARRANGEMENTS IN SELECTED LOW- AND MIDDLE-INCOME URBAN AND RURAL RESIDENTIAL AREAS OF SOUTH AFRICA 32
3.1. Classification of Tenure and Tenancy Rights 33
3.1.1. The land policy environment: institutional imperatives 33
3.2. Towards a Responsive Housing Policy 35
3.3. Mapping Multiple Tenure Arrangements in South Africa 37
3.3.1. New Approaches to Housing 37
3.3.2. Customary Tenure Arrangements 37
3.3.3. Registration of Deeds System 38
3.3.4. Local and Off-Register Tenure Arrangements in Rural and Urban Areas 40
3.3.5. Transitional Tenure Arrangements 40
3.3.6. Religious Tenure Arrangements 41

CHAPTER 4: THE RELATIONSHIP BETWEEN TENURE SECURITY, TENANCY AND INVESTMENT IN WATER AND SANITATION SERVICES IN SELECTED LOW- AND MIDDLE-INCOME URBAN AND RURAL RESIDENTIAL AREAS 42
4.1. Land Tenure, Tenancy and Water Services Delivery in Selected Case Studies 42
4.2. LOUIS TRICHARDT: TSHIKOTA TOWNSHIP 43
4.2.1. Rationale for Case Study Selection 43
4.2.2. Water and Sanitation Services 43
4.2.3. Methodology 43
4.2.4. Demographic Profile 43
4.2.5. Employment and Unemployment 44
4.2.6. Housing Development: Residential Plots, Landlords and Tenants 44
4.2.7. Local perspectives on Challenges to Effective Water Services Delivery in Tshikota 45
4.2.8. Investments in Water Services Infrastructure 45
4.2.9. Patterns of Access to Water and Sanitation Services at the Residential Plot Level 46
4.3. ETHEKWINI: CHATSWORTH 47
4.3.1. Rationale for Case Study Selection 47
4.3.2. Housing, Tenure and Tenancy Profile 47
4.3.3. Methodology 48

4.3.4. Housing development, Land Tenure and Tenancy 48
4.3.5. Patterns of Access to Water and Sanitation in selected areas of Chatsworth 49
4.3.6. Tenure, Tenancy and Investment in Water and Sanitation Facilities in Chatsworth 49
4.4. KENSINGTON TOWNSHIP, CAPE TOWN 51
4.4.1. Rationale for Case Study Selection 51
4.4.2. Methodology 51
4.4.3. Housing Development, Land `Tenure, Tenancy and Access to Water and Sanitation Services 51
4.5. MFULENI TOWNSHIP, CAPE TOWN 54
4.5.1. Rationale for the Case Study 54
4.5.2. Rationale and Methodology for the Case Study 54
4.5.3. Land Tenure and Tenancy 55
4.5.4. Water and Sanitation services 55
4.6. SEBOKENG TOWNSHIP, EMFULENI LOCAL MUNICIPALITY 56
4.6.1. Rationale for Case Study Selection 56
4.6.2. Methodology 56
4.6.3. Land Tenure and Tenancy 56
Zone 11 Formal Housing Area: Land Tenure and Tenancy 56
Sebokeng Hostels: Insecure Tenancy 57
4.6.4. Water and Sanitation Services in Sebokeng Hostel Dwellers 58
4.7. MARLBORO SOUTH, JOHANNESBURG 58
4.7.1. Background and Rationale to the Case Study 58
4.7.2. Land Tenure and Tenancy 59
4.7.3. Water and Sanitation Services 59
4.8. FREEDOM PARK, RUSTENBERG 60
4.8.1. Background and Methodology for the Study 60
4.8.2. Land Tenure and Tenancy 60
4.8.3. Water and Sanitation Services 61
4.9. MOTHOTLUNG, MADIBENG LOCAL MUNICIPALITY 62
4.9.1. Rationale for the Study 62
4.9.2. Land Tenure and Tenancy 62
4.9.3. Water and Sanitation Services 62

CHAPTER 5: GENDER AND LIVELIHOOD ISSUES ASSOCIATED WITH CHALLENGES OF ACCESS TO WATER AND SANITATION SERVICES 64
5.1. Framing the debate on Gender and Livelihoods Issues 64
5.1.1. Research Problem 64
5.1.2. Research Objectives and Methodology 64
5.1.3. Gender Analysis 65
5.1.4. Indicators 65
5.2. Policy Imperatives for Gender and Livelihoods Approaches 66
5.2.1. Global, Regional Approaches 66
5.2.2. National Imperatives 67
5.2.3. An Enabling Environment for Gender Mainstreaming in Water and Sanitation Services 69

5.3. Gender and Livelihoods Perspectives on Land Tenure, Tenancy and Access to Water and Sanitation 70
5.3.1. Socio Economic Profiles: Employment, Unemployment and Economic Opportunities 70
5.3.2 Income 71
5.4. Growth of Female Landlordism in Urban Areas and Urbanising Rural Contexts 72
5.5. Linkages Between Landlord Investment, Rental Affordability and Urban Formal Housing: Synthesis of Findings 72
5.6. Urban Property Rights, Power and Governance Issues 73
5.7. Gender Perspectives on Access to Water: Key Conclusions and Findings 74
5.7.1. Sub-Catchment Perspectives 75
5.7.2. Land Tenure, Tenancy and Water Services Delivery from a Gender Perspective 76
5.8. Key Findings 77
5.8.1. Patterns of Water Use 77
5.8.2. Non-compliance with established rules of access 78
5.9. Key Conclusions 79

CHAPTER 6: APPROPRIATE WATER AND SANITATION SERVICE MODELS FOR DIFFERENT TENURE AND TENANCY PROFILES 81
6.1. Synthesis of Delivery Options for Selected 'Group' Tenure and Tenancy Contexts 81
6.1.1. Formal Residential Areas: Uncoupling Incremental Investments in Tenant Social Housing and Water Services Infrastructure 82
6.1.2. A Stratified Approach to Tenant Social Housing and Infrastructure 83
6.1.3. Owner and subsidy led options 84
6.2. Informal Settlements: Upgrading Communal Water Services Infrastructure 86

CHAPTER 7: SYNTHESIS OF FINDINGS AND RECOMMENDATIONS TOWARDS A PRACTICAL FRAMEWORK FOR DEALING WITH CHALLENGES PRESENTED BY LAND TENURE AND TENANCY IN WATER AND SANITATION SERVICE DELIVERY FOR THE POOR IN LOW- AND MIDDLE-INCOME URBAN AND RURAL RESIDENTIAL AREAS 88
7.1. Introduction 88
7.2. Key Analytical Framings 88
7.2.1. Context to the Study 88
7.3. Key Findings 90
7.3.1. Synopsis of Key Analytical Findings Social Water Scarcity 90
7.4. The Hydro-Social Contract 91
7.4.1. Key Policy Findings and Recommendations 91
7.5. Table 1: Analytical Recommendations Towards a Practical Framework: Land Tenure and Tenancy 94
7.6. Table 2: Recommendations Towards a Practical Framework 95

APPENDIX 96

BIBLIOGRAPHY 114

CHAPTER 1: REVIEW OF DELIVERABLE 1, LITERATURE AND POLICY REVIEW ON LAND TENURE AND TENANCY ARRANGEMENTS AND URBAN AND RURAL WATER SERVICES DELIVERY

1.1. Rationale for the Study

The project builds on the findings of a previous study undertaken by Dr. Barbara Tapela on Social Protest and Water Services delivery in South Africa (Tapela, 2013). The study examined the policy stress of rising demands for social services and the citizenry's dissatisfaction with unmet expectations. Social protest and other coping strategies and/or peaceful engagement with municipalities formed a key focus. The study found that correlations between protest and dissatisfaction were not that simple. Discrepancies with regard to grievance resolution became somewhat clearer at ward rather than municipal or provincial level. From the ward-level vantage point, it was confirmed that grievances over water and sanitation services tended to revolve around quality of access. These grievances are amplified by a host of other variables including the politics of civil society engagement, the role of the social media, and the timing of elections. While these findings were useful in themselves, the analysis fell short of providing the nuance required to develop effective policy interventions.

This study premises upon the view that any useful analysis of the post-apartheid water and sanitation services delivery challenge necessarily has to move beyond the singular lens on social protest to include a more complex overlay of lenses that include focusing on the micro-level of the plot within urban and rural low- and middle-income residential areas. As key analytical concepts, land tenure and tenancy help to transcend the singularity of the social protest lens.

1.1.1. Background to the Report

The report's focus on grievances and obstacles to effective urban and rural water service delivery is against the background of global insecurity of millions of people living in poverty in the developing world who lack security of tenure or property rights. The United Nations (UN) predicts this figure to reach 1.5 billion by 2020. The problem is most acute in urban areas where the cost of legal access to land hand housing is rising at a far higher rate than incomes. Beyond the effects of this trend on the poor in a worldwide context of rapid urbanization, governments are at risk of losing control of over the urban environment and the affluent are feeling increasingly surrounded by illegal slums and settlers. Compounding these problems in South Africa, is the hyper-urbanisation that took place since 1994. Census data shows the growth of almost two thirds of 8 of the country's largest cities (Borel-Saladin and Turok, 2013). In 2010 the National Treasury released a report that illustrated that 63% of South Africa's population lived in urban areas. While these trends are not unusual in the global context, the hyper-urbanisation that characterised the end of Apartheid is largely influenced by South Africa's history of racially biased resource allocation. In the intervening years the binaries or racial resource allocation have gradually morphed into a more complex mix of planned/invited/formal spaces that jostle cheek-by-jowl with organic/invented/informal spaces. In this milieu, development planning paradigms come face-to-face with the realities of the unleashed

complexities of livelihoods of citizens and immigrants who straddle the formal and informal economies. Within these complex contexts, the relationship between land tenure, tenancy and water/sanitation services delivery also differs between urban and agrarian contexts because of differences in the social construction and function of these spaces.

In urban areas, the removal of apartheid era influx control has meant that Black South Africans are no longer residents but citizens who ostensibly have rights to the city and greater degrees of freedom to establish their own homesteads within or outside of the ambit of the state and the residential property market. The consequence of this has been a reduction to the average household size, increase in number of households and a hyper-growth of the demand for housing and social services relative to the slower pace of the state-led delivery. The net effect has been an increase in backlogs of historically disadvantaged individuals (for this report HDIs) trapped on waiting lists or databases and/or dependent on informal rental and tenure markets (although for some informality is a choice rather than an entrapment). Between 2001 and 2011, formal dwellings increased from 68% to 78% and informal dwellings decreased only slightly from 16% to 14%. These figures mask the prevalence towards informality in urban areas due to rapid urbanization. Bore-Saladin and Turok point out that 1 in 5 households in metros live in shacks, and Cape Metro had the biggest increase (53%) followed by Johannesburg metro (17%). There has also been an increase in the number of household residing in backyard shacks. While metros show the greatest increase in informality of tenure, findings show this urbanization trend is spreading to non-metropolitan cities and towns and smaller towns across South Africa.

Against this backdrop of rapid urbanization, critical leverage for "moving up the ladder" include access to housing, informal settlement upgrades, tenure security, formalization of tenancy and other mechanisms. For residents living in informal tenure and tenancy, the option of infrastructure upgrade requires close examination. Such upgrades entail an incremental approach to housing delivery rather than the delivery of a finished product or house. Given fiscal limitations, the incremental approach ensures a wider spread of financial resources to the benefit of a greater number of shelter deprived households. There also seem to be more plausible opportunities to link housing upgrades with the water and sanitation sector's incremental approach to ensuring the progressive realization of the human rights of secure access to water and sanitation services.

There seems a valid case for considering upgrade options for households living with insecure access to services, particularly those in informal tenure and tenancy settings, however the complexity of these forms of tenure have yet to be fully understood and characterized. Increases in informal tenancy in both formal and informal setting have been less visible and policy options for improved security of access to water and sanitation services even less clearly understood. This is because the livelihoods of many of these residents involve mobility, often straddling the divides or rural-urban areas, formal-informal economies as well as administrative and political boundaries. Tenants living in rural settings seem to be even less visible than those found in urban areas.

Against this background, the project has sought to identify key questions that will help to develop policy tools to enable key stakeholders to deal with water and sanitation service delivery challenges emerging from the scenario of rapid urbanization and de-agrarianisation of the post 1994 South African socio-economic landscape. These tools may help to address the challenges presented by differing formal and informal land tenure and tenancy arrangements.

1.1.2. Key Questions and Findings

The 9 key questions can be summarized as follows:

1 What are the challenges presented by formal and informal land tenure and tenancy arrangements in terms of equitable access to water and sanitation for the urban and rural poor, marginalised and vulnerable groups in South Africa?
2 What is the characterization of the mix of land tenure and tenancy arrangements that fall within and/or outside of the ambit of the formal land registry system in selected low- and middle-income areas?
3 What are the patterns of access to water and sanitation services within the mix of formal and informal tenure and tenancy arrangements in these areas?
4 Related to question 3, what is the relationship between tenure security, tenancy and investment in water and sanitation services in these areas?
5 What are the gender and livelihood issues associated with challenges of access to water and sanitation services in the mix of tenure and tenancy arrangements described in the first chapter of the report?
6 What could be the appropriate water and sanitation service models for different tenure and tenancy profiles?
7 What are the possible options for reinforcing the strategic capacity of the municipality and service providers?
8 What are the possible options for incentivizing investments by landlords in water and sanitation services?
9 What practical framework can be used to address identified challenges presented by land tenure and tenancy in water and sanitation in the areas described above?

This study summarises relevant findings pertaining to questions 1 to 8 in order to address the central outstanding question for this deliverable, namely, what recommendations might it be possible to make towards a practical framework can be used to address identified challenges presented by land tenure and tenancy in water and sanitation. A practical framework must take into account the different levels of engagement and stakeholder involvement as well as the diverse relationships between stakeholders in the case study areas examined. Due to the case study driven nature of these findings and recommendations, the validity of the practical framework is high in relation to the areas covered. Further case study research of commensurate detail would assist to extend the recommendations to other municipalities.

This study concludes the research project on land tenure, tenancy and water services delivery in South Africa by synthesizing the findings of deliverables 1 to 8 on recommendations towards a practical framework towards addressing the challenges presented by land tenure and tenancy to water and sanitation service delivery for the poor in low- and middle-income urban and rural residential areas of South Africa. In order to ground the challenges and recommendations, the report summarizes key dimensions of deliverables 1-8. It is thus structured into chapters, each of which deals with the relevant deliverable report. Deliverables 4 and 8 are referred to in the final chapter as these deliverables were policy dialogue workshops. The final chapter contains a summary of synthesis of findings on the recommendations on the challenges towards developing a practical framework for dealing with the challenges presented by land tenure and tenancy towards water and sanitation in different urban and rural contexts, and key conclusions derived from the deliverables towards developing such a framework. The latter stages of the project highlighted that the mix of urban and rural land tenure and tenancy arrangements that fall within and outside the ambit of the formal registry system in low- and middle-income residential areas is very diverse, and the characteristics of each mix differs according to context. Patterns of access to water and sanitation services within the mix of formal and informal tenure and tenancy arrangements are similarly complex and influenced by multiple relationships between municipalities and home-owners, landlords and tenants, and in some cases, municipalities and traditional leadership. Recommendations towards a practical framework for dealing with these challenges require cognizance of this complexity and diversity, particularly in relation to stakeholder relations, as case study research in City of Cape Town (CoCT), Johannesburg and eThekwini made clear. A practical framework must take into account the different levels of engagement and stakeholder involvement as well as the diverse relationships between stakeholders in the case study areas examined. Due to the case study driven nature of these findings and recommendations, the validity of the practical framework is high in relation to the areas covered and would need further case study research of commensurate detail in order to extend the recommendations to other municipalities.

1.1.3. Research Aim and Objectives

The project aimed to answer the 9 questions above in an effort to identify the complex challenges facing water and sanitation delivery in a context of rapid urbanization, and thereby to develop a practical framework for assessing options for enhancing security of access to water and sanitation services under different urban and rural land tenure and tenancy settings in low- and middle-income residential areas of South Africa.

Linked to this aim are 9 objectives, which can be summarized as follows:

- To develop clear understandings of the challenges presented by different formal and informal land tenure and tenancy arrangements to equitable access to water and sanitations services for the urban and rural poor;
- To characterize the mix of land tenure and tenancy arrangements that make up the mix within

and/or outside of the ambit of the formal land registry system in selected low- and middle-income areas;
- To map the patterns of access within this mix;
- To examine the relationship between tenure security, tenancy and investment in water and sanitation services in the described areas;
- To identify gender and livelihood issues associated with challenges of access to water and sanitation services;
- To identify appropriate water and sanitation service models for different tenure and tenancy models;
- To explore options for reinforcing the strategic capacity of the municipality and service providers;
- To explore possible options for incentivizing investments by landlords in water and sanitation services;
- To develop a practical framework for assessing options for enhanced security of access to water and sanitation services in the areas described above.

1.1.4. Methodology

The detailed methodology for operationalizing each objective is itemized in chapter 1. Subsequent reports duplicate a similar methodology that relies on 3 core components, namely Literature review, Empirical research and Participatory Action Research. In summary, each objective has been is past perfect tense been met through the following operationalization strategies:

a. Characterization of the mix of land tenure and tenancy arrangements that make up the mix within and/or outside of the ambit of the formal land registry system in selected low- and middle-income areas: survey of the land registry system; literature review; cross referencing interviews with key resource persons;

b. To map the patterns of access to water and sanitation services by tenure and tenancy through a survey of municipal water and sanitation databases and the land registry; GIS mapping; google maps and community led surveys to produce accurate maps of informal settlements and informal tenancy; where possible this mapping and profiling to be cross-referenced with the social protest catalogue and GIS mapping of social protest events associated with water delivery (Tapela, 2015).

c. To examine the linkages between tenure security, tenancy and investment in water and sanitation services in the described areas through a literature review, interviews with key stakeholders (for example institutional actors within municipalities, NGOs, CSOs, CBOs, private sector, universities, research institutes and other organisations); in depth interviews with owner occupiers, landlords and plot owners at municipal level; and adapted Echelons of Rights analysis (ERA) determining the domains of water control at plot and community level;

d. To examine gender and livelihood issues associated with challenges of access to water and sanitation services through a literature review and the use of a Sustainable Livelihoods framework (SLF) and ethnographic research;

e. To analyse appropriate water and sanitation service models for different tenure and tenancy models through a literature review of past experiences in South Africa and elsewhere; and through action research through stakeholder and policy engagement;

f. To explore options for reinforcing the strategic capacity of the municipality and service providers; through a literature review of past experiences in contexts within South African and elsewhere; and action research through stakeholder engagement and policy engagement;

g. To explore possible options for incentivizing investments by landlords in water and sanitation services; through a literature review of past experiences in South African and elsewhere; and action research through stakeholder and policy engagement;

h. To develop a practical framework for assessing options for enhanced security of access to water and sanitation services in the areas described above, through a synthesis of the above findings.

A limitation of the study was identified at the outset, namely that using registers as sources for data for developing clear understandings of the relationship between land tenure, tenancy and water and sanitation service delivery must take into account Scott's (1998) observation that by simplifying and affixing people to definable land spaces and portions of land the complexity of land tenure and tenancy is obscured. This form of knowledge, also referred to by Scott as a "narrowing of vision" tends to over-simplify a "complex and unwieldy reality…. The modern state applies a similar lens to urban planning, rural settlement, land administration and agriculture".

1.1.5. Key Elements of the Conceptual Framework

This study is anchored in the conceptual framework in chapter 1, which locates the relationship between land tenure, tenancy and sanitation services delivery in a rapidly urbanizing and de-agrarianising political economy in terms of an adapted 'hydro-social contract' that exists between the State, Society and Markets (Lundqvuist, 2001). This term refers to the pervading values and often implicit agreements between communities, governments and business on how water should be managed.

This study extended Lundqvuist's depoliticized construct to include 3 key points of departure. The first point is that the South African hydro-contract has not been shaped by the dominant cultural perspective and historically embedded water values but has been moulded by a racially based historical political economy governing resource allocation. Given this political history, the complexity of resource management should not be sanitized and/or under-estimated.

The second conceptual point of departure in understanding the triadic hydro-social contract is that it is neither equal in terms of power relations and exercise of rights and responsibilities, nor value free, in terms of ethics, principles, ideologies, interests and motivations. Public statements about the common interest or public partnerships do not necessarily resolve the vulnerability of the hydro-social contract to the perversions of the otherwise well-intended collaborations between States and Markets. As previous research highlights, perceptions of market capture, the collapse of invited spaces and weaknesses in governance and regulatory frameworks strongly explain the increase in civil society mobilisations since 2009, as well as the increased role of media and social protests by citizenry (Tapela et al., 2015).

The third point of departure is that the hydro-social contract is transacted through the socio-ecological fabric of space through time. Space, in this study, refers to the physical embodiment of the linkage between land, housing, water resources, water and sanitation infrastructure and social constructs, particularly property rights that the state, markets and society craft. Without security of tenure or tenancy, investment in hydraulic infrastructure becomes untenable and/or insecure. Tenure and tenancy are key-most among common denominators that determine the patterns by which citizenry practically negotiate and attain (or not) secure access to water and sanitation services.

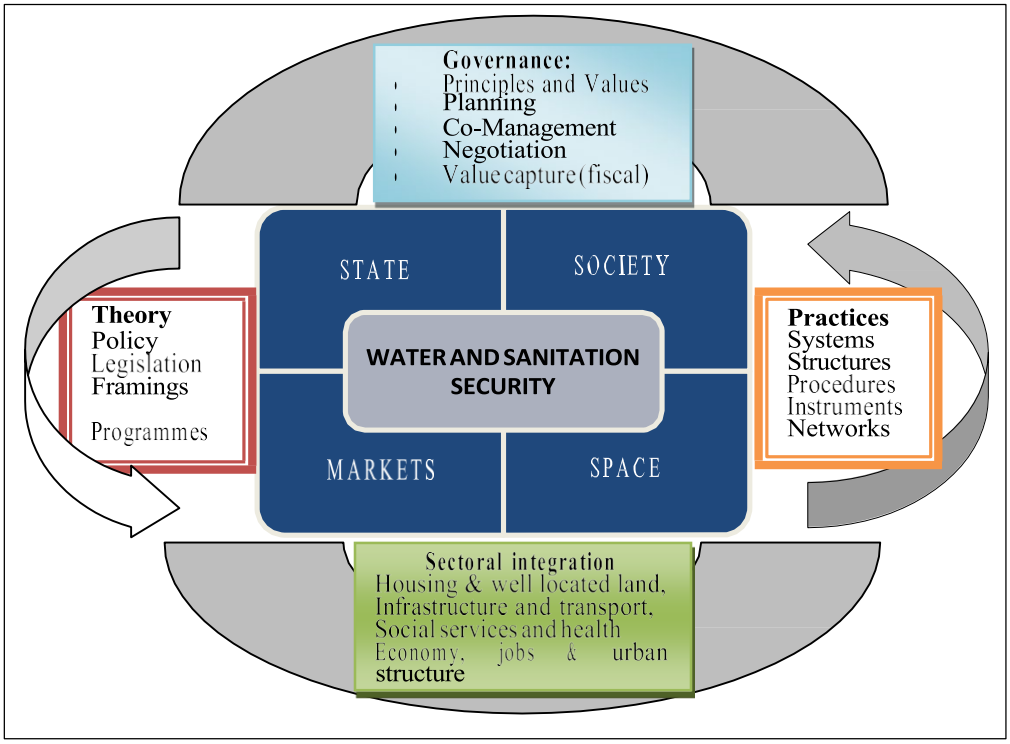

Figure 1 Conceptual Framework

Institutional arrangements and regulatory frameworks do not deliver on the hydro-social contract in themselves. They are animated by governance practices as well as sectoral interventions and investments in land, housing and sanitation services infrastructure, as well as transport and electrical infrastructure. Since governance and implementation functions are often both sites of

contention, as well as the resolution, of issues, it seems plausible that a critical aspect to understanding the constraints to secure and equitable access to water and sanitation services lies at the micro-plot level of land tenure and tenancy.

The conceptual framework used for this study is complemented by other analytical frameworks, for example, the Water and Sanitation for the Urban Poor (WSUP) Framework for dealing with land tenure and tenancy in water and sanitation services, as well as the Integrated Framework for Governance and Governability (Kooiman, 2008) and Sustainable Livelihoods Framework (Scoones, 1998, 2010).

1.2. Perspectives on Challenging the Dualism in South Africa's Space Economy

1.2.1. Challenging the Two Economies Analysis and Beyond

This study challenged the perspectives that have emerged in the South African context following De Soto's influential book entitled *The Mystery of Capital*. Cousins et al. (2005) Makgetla, 2004. Terreblanche, 2002 and Mammon et al., 2008 have challenged the analytical and policy context which was prevalent in Mbeki's Presidential term. This line of thinking, following on from De Soto's premise that capitalism can be made to work for the poor, premises that economic growth in the first (formal) economy would automatically benefit the second (informal) economy. Critical scholars have dismissed the structural distortions and two economies analysis pointing out that the apparently successful policies pursued in the first economy were the same policies that created the structural disadvantages and distortions in the second economy.

A central policy initiative that was influenced by this critique was the Trade and Industrial Policy Strategy (TIPS) initiative that was set up to collate ideological viewpoints and evidence based reports from stakeholders that fed into the AsgiSA High Level Think Tank Team work in the office of the President. This strategy placed emphasis of the role of structural inequality rather than highlighting the flawed "two economies" argument.

1.2.2. The 'Inclusive City"

Central to the structural inequalities analysis is that to overcome the spatial parameters of poverty, the structure of the economy and the inequality in the development of human capital are central to re-address an alternative development that meets a balance between growth and access to opportunities, particularly among the urban poor.

The basic tenet of the structural inequalities argument predicates upon the views by Sen (1999) and Beall et al. (2002). Sen (1999) emphasizes that concepts of rights and political liberty are used liberally in contexts where remarkable poverty, deprivation and destitution are also prevalent. Beall et al. (2002:9) underscore that cities are not only sites of vibrant development and social and cultural creativity and political innovation, but also sites of disadvantage and division and can be divided along a number of axes, including class, race, ethnicity, gender, generation and length

or urban residence. Mammon et al. (2008) also point out that the spatial and economic challenges in many South Africa cities are the same as those left by Apartheid. They characterize the challenge towards the inclusive and integrated city in term of four key themes, namely:

i. The changing nature of work and its impact on the physical form of the city;
ii. How public life and urban spaces of the city foster or inhibit acceptance and/or tension among different communities;
iii. How the design of settlements and neighbourhoods affect local communities and sustainable urban integration; and
iv. The effects of mobility and transport systems on social cohesion and economic viability.

1.2.3. Agrarian Reform

With respect to transforming dualism in agrarian contexts, amongst others, Cousins et al. (2005) argue that the solution lies not in "building ladders between the lower and upper storeys of the two tiered house, but rather in rebuilding the house according to a new set of architectural plans". Following from this, Cousins (2003) argue that contrary to conventional notions of poverty as being residual in character, the vast majority of rural dwellers are not so much excluded as included on *highly adverse terms* (emphasis added). Du Toit (2005) adds to this perspective by highlighting that the problem is more often not that the poor are excluded from particular institutions, resources or larger processes, but that they have been included on inequitable or invidious terms (see also Apthorpe, 1999, Bracking, 2003 and Murray, 2001). As a strategy, Cousins et al. (2005) that more attention should be paid to existing social practices that have widespread social and cultural legitimacy. This would include socially embedded extra-legal property regimes, and the importance of these in securing livelihoods.

These analytical lenses together with other institutional interventions such as the Integrated Sustainable Rural Development Programme (ISRDP) and the Comprehensive Rural Development Programme (CRDP) help to shed light on the complex land tenure and tenancy legacy in South Africa left by the Apartheid era.

1.3. Analytical and Policy Perspectives on urbanization and de-agrarianisation challenges and water and sanitation services delivery

Analytically, while there is broad consensus that the relationship between the state, citizens and their spatial living conditions are a product of apartheid, there is less consensus on how to address the subsequent and related challenge of hyper-urbanisation. Deliverable 1 provides an in-depth analysis of the discourse, debates and narratives as they pertain to the post-1994 emerging land market, and the relationship between land tenure, tenancy and water and sanitation delivery challenges (see pages 30-39).

In terms of addressing the structural socio-economic inequalities that underpin tenure insecurity among the urban poor, analytical solutions offered have diverged between the compact and fragmented city analyses, the former stating that urban sprawl raises infrastructure costs and

should be minimized; while the latter states that urban sprawl has more to do with apartheid planning and fragmented communities, and that integrated and coordinated development planning has largely failed to reduce this form of fragmentation. The ideologically imbued policy debate around Cities without Slums, which found concrete application in the City of eThekwini's Slum Eradication Policy, encountered widespread social protest from civil society organization such as Abahlahli BaseMondjolo and informal dwellers in Kennedy road (Tapela et al., 2012). "Rights to the City" by contrast, highlights that in-migration to cities is motivated less by pull factors than by push factors, including labor shedding, caused by wage and land rights legislation for farm-workers, consolidation of farms caused by globalization-induced economic hardships experienced by farmers, drought, and conversion of crop and livestock farms to game farms.

From a planning perspective, rapid urbanization has overburdened the formal land registry system which in turn hamstrings water and sanitation access solutions, especially for those living in informal tenure and tenancy situations. Urban settlements have given rise to complex land tenure and tenancy arrangements. For example, it is common for several tenants to rent from a landlord on a plot of land that has been bought, subdivided, inherited and sold several times under informal land ownership arrangements. Ownership rights are therefore complex and documents may vary from the actual situation.

Furthermore, municipalities have been unprepared for the pace of urban growth and nor have they been prepared for the massive investment in social infrastructure and services in housing and water and sanitation.

1.3.1. Post-1994 Socially Embedded Land Markets, Tenancy and Informal Settlements.

The above discussion endorses research findings by Urban Landmark that emphasizes the existence of a land market that exists technically outside of the legal system, but that these land practices are nevertheless organized and possess sophisticated local land management and regulatory systems (Napier and Royston, 2013). These arrangements show little evidence of conflict demonstrating that as micro-scale governance practices they are relatively functional.

Field evidence confirms these views, and shows further that the tenancy sub-sector is intricately linked to both formal and informal housing arrangements. The reasons for these extra-legal and informal arrangements that co-exist alongside government housing policies to address backlogs and urbanization are fourfold.

In summary, these are:

1) Post 1994 housing policy replicates spatial patterns of location of the urban poor far away from places of employment, and still spends a relatively high proportion of the monetary and non-monetary costs of overcoming the frictional effects of distance on low-income households;
2) Perpetuation of the apartheid approach of an incremental approach to housing delivery (though slum and informal housing upgrades) which benefit relatively few households and do

not reduce the housing backlog;

3) Demand for shelter stretches beyond the limits of available formal housing and disgruntlement with housing lists causes people to break out of lists or databases to informally establish their own houses;
4) The RDP housing process failed to make the provision of houses a sufficient asset, thus eliciting a trend of asset 'milking' by stretching the value through illegal connections.

These findings help to underscore how formal and informal economies are co-produced by state and non-state regulatory systems, creating hybridized economies with far reaching implications for how we understand governance, markets and the role of the state in our cities.

In these circumstances a key question is whether it is legal or actual tenure that provides sufficient security for infrastructural investment in water and sanitation in particular. Proponents of land titling (de Soto, 2000) argue that illegality discourages capital investment, but others suggest that it is security that translates into not fearing eviction that provides sufficient impetus to invest. In this context, observations have been made however, that the South African municipal water and sanitation services planning and delivery have largely overlooked the potential of rental housing as a key feature of urban real estate, an essential housing option for the poor and an integral part of well-functioning cities. Although tenancy is a viable option for both tenants and landlords, national housing policy has increasingly focused on conferring ownership rights rather than developing rental housing options (Gardner, 2010; Turnstall, 2008). Additionally, guidelines for minimum standards for the progressive realization of access rights to water and sanitation under varying tenure and tenancy arrangements have yet to be made explicit.

Gardner (2010) characterises the tenancy sub-sector as one of the most successful, efficient and pervasive accommodation delivery systems in South Africa. Of the 2.4 million South Africans that rent their primary accommodation 850 000 (35%) occupy small-scale private rental units.

This is approximately 10% of all South African households. Contrary to popular belief, of these 53% are formally constructed dwellings and 47% are shacks in backyards. Gardner points out that this sector of the housing market operates in an often hostile policy environment without state support. Gardner also notes that the fastest growing housing sub-sector within the small scale private rental sector are houses, rooms and flats built on properties with existing dwellings. In this sector there was a massive 83% growth between 2002 and 2008. It is estimated that this sector is generating a rental income in excess of R420 million per month, approximately R5 billion per annum. The majority of landlords are unemployed and many are women with little or no sources of income.

It is therefore useful from the vantage point of developing a practical policy orientated framework to address the water and sanitation challenges arising from rapid urbanisaton to examine the burgeoning tenancy sector.

At the plot level, the glowing achievements of the tenancy sector do not necessarily translate into equity of access to water and sanitation services. In certain tenancy scenarios inequities of access to water and sanitation are likely to be reproduced at the plot level. There is thus a plausible need to unpack, in order to understand and strategise solutions for the challenges arising from formal and informal tenancy and tenure arrangements for the poor, marginalised and vulnerable groups living in these circumstances.

A key problem is that although rental housing is a key feature of urban real estate, integral to a well-functioning city, and essential as a housing option for the poor, it has been largely overlooked by the South African municipal water and sanitation services planning and delivery. Informal renting seems to have a bad reputation, much like other developing contexts, perhaps owing to the prevalence of exploitative landlords. Exploitative landlordism by definition, reinvests back into the housing stock very little of the capital generated by the rental sector. Evidence suggests, for example, that live-in landlords may prefer to keep toilets for their exclusive use, while tenants have to use other lesser quality and higher loading facilities, public toilets or even open defecation (Schaub-Jones, 2009). Beyond exploitative landlordism however, this project has sought to understand the reasons why landlords often fail to invest in enhancing their tenants' access to adequate water and sanitation services.

Added to the aforementioned challenges it is also necessary to develop minimum standards guidelines towards the progressive realization of access rights to water and sanitation under various tenure and tenancy arrangements, because at a policy level, these are yet to be made explicit.

With regard to informal settlements, Huchzemeyer (2004) states that the proliferation of informal settlements in urban areas since the end of Apartheid points to the failures of the regulatory paradigm of planning. According to Huchzemeyer, this stems back to the ideological contestation between the two divergent policy discourses on "Cities without Slums" that gained popularity and legitimacy from the UN Habitat endorsement in its Millennium Development Goals (MDGs); and the Marxist lobby's "Right to the City". At the crux of this contestation in policy terms is that the "embarrassment of slums/informality" that characterises the Cities without Slums movement has led to an institutional inertia in the face of the rapid demand for services in informal settlement areas and a concomitant lack of investment by major stakeholders. Women have had to bear the brunt of insecure access to water and sanitation services but at the same time have lower degrees of access to decision-making platforms than men (Tapela, 2015). In this context the gender dimensions of the policy inertia need also to be flagged against the backdrop of the fact that women's rights to land are often contingent on their relationships with men. This further complicates the formalised land rights issue in that it often cannot address these gendered characteristics of land ownership in South Africa.

1.4. The Policy Setting

Deliverable 1 (pp 43-54 see Appendix 1) provides detail of the pre-1994 policy setting that has shaped the dualism of the South African economy to date. The racial overtones of current land ownership extend back to the Natives Land Act, No 27, of 1913 and the Natives (Urban Areas) Act of 1923. These restrictions on black ownership (to native reserves only) have laid the foundations for a highly skewed land ownership profile and also the foundations for residential segregation in urban areas.

Other relevant Acts that have shaped the urban and rural landscapes to date are the Population Registration Act, (Act No 30, of 1950); the Group Areas Act (Act no 41 of 1950); The Prevention of Illegal Squatting Act (Act No 52 of 1951); the Bantu Authorities Act (Act No 68 of 1951); The Native Laws Amendment Act of 1952; the Natives (Abolition of Passes and Co-ordination of Documents) Act, (Act no 67 of 1952); the natives Labour Act of 1953; the Bantu Education Act (Act No 47 of 1953); the Reservation of Separate Amenities Act (Act No 49 of 1953); the Natives Resettlement Act, Act No 19 of 1954; the Group Areas Act, Act No 69 of 1955; the natives Prohibition of Interdicts Act (Act No 64 of 1956) the Promotion of Bantu Self Government Act (Act No 46 of 1959) the Coloured Persons Communal Reserves Act (Act No 3 of 1961); the Urban Bantu Councils Act (Act No 79 of 1961) and the Bantu Homelands Citizens Act of 1970.

Hyper-Urbanisation in the decades post 1994 must be located within this labyrinthian Apartheid policy background. Transformation in the subsequent decades, while underpinned by constitutional imperatives, grapples with the structural distortions as well as the expectations of citizenry of restorative justice, improved access to social services and amenities, enhanced economic opportunities and prosperity.

1.4.1. The White Paper on Housing 1994

At the ascendance of the post-apartheid state in 1994, the Housing White Paper (DHS, 1994) defined security of tenure as the cornerstone of the government's approach towards providing housing to people in need. The White Paper also articulated the linkage between tenure and access to water and sanitation services.

In summary the White Paper provided an assessment of the Living Conditions, Existing Housing Stock and Rate of Supply. The White Paper emphasized that the relatively small formal housing stock and the low rate of formal housing delivery had created a huge demand for alternative accommodation in the form of tenancy and informal settlement creation.

The White Paper highlighted key statistics with regard to formal and informal housing:

- 61% of urban household lived in formal housing;
- There were approximately 1.5 million urban informal housing units at that time;
- 5,2% of all households resided in hostels which were owned by the private sector, grey sector and public sector;

- 13,5% of all households lived in squatter housing;
- Two thirds of the total population of the 17.1 million people who lived under the poverty datum line resided in in rural areas;
- Approximately 1.5 million farm workers had access to farm worker housing but no safe tenure, as a result their conditions were among the worst in the country.

The White Paper underlined the need to give attention to informal settlement dwellers, farmworkers and residents of rural areas outside of commercial farms.

The White Paper also underlined the conditions in urban areas were far from adequate. 25% of all functionally urban households at that date did not have piped access to potable water supply. Other key recommendations contained in the Housing White Paper were:

- the need for minimum standards to be encoded at national level for the provision of water and sanitation services and the control and management of human activities on the countries water resources;
- the policy approach adopted towards Technology Choice and Infrastructure Costs was that the provincial authorities should devise a service matrix for use by local authorities;
- On Cost Recovery and Tariffs the recommendation was that the structure of the tariff in both water and sanitation should be set as the national framework or strategy that takes into account regional variations.

1.4.2. Land Tenure Reform Policies

The White Paper on Housing set the scene for a wide range of policies aimed at redressing historical inequities with regard to access to land and land tenure. Two key policies summarized here and discussed in detail in the Deliverable 1 Report, are the Subsidy Policy and the Land Reform Policy, both of which have been largely rural in focus. In 2004 Cabinet approved the Comprehensive Plan for Sustainable Human Settlement (also called Breaking New Ground, or BNG) which recognizes the important role played by tenure issues in services provision. The approach encapsulated in BNG was to provide tenure in terms of title deed and provision of social services such as water and sanitation, housing and electricity. Analytically, this approach stresses that tenure is linked to easy access to services and that insecure tenure or lack of title severely circumscribes the ability to access services. The plan also focused on minimum standards for housing and further on Informal Settlement Upgrading to meet the Millennium goals of the UN to improve the lives of slum dwellers. Furthermore, the subsidy programme is premised on the assumption that the state can only make a limited contribution and that private investment would drive such a programme through credit and sweat equity on the part of owners.

Table 1. Overview of the Current Housing and Subsidy Programmes

Integrated Residential Development Programme
Upgrading of Informal Settlements
Provision of Social and Economic Facilities
Housing Assistance in Emergency Circumstances
Social Housing Programme
Institutional Subsidies
Community Residential Units Programme
Individual Subsidy Programme
Rural Subsidy: Communal Land Rights
Consolidation Subsidy Programme
Enhanced Extended Discount Benefit Scheme
Rectification of Certain Residential Properties Created Under The Pre-1994 Housing Dispensation
Housing Chapters of an Integrated Development Plan
Operational Capital Budget (Ops/Cap)
Enhanced People's Housing Process
Farm Residents Housing Assistance Programme

1.4.3. Urban Land and Housing Policy

While South Africa's Constitutional Bill of Rights protects the rights of citizens to housing and access to basic nutrition, water, shelter, basic health care and social services and although South Africa has ratified the UN's Millennium Goals, municipalities have not focused sufficiently on addressing spatial and other problems relating to local social and economic issues. Thus while the Housing Act, the Breaking New Ground (BNG) strategy and the Social Housing Bill (2007) provide for rental and other housing options for medium- to low-income houses and the national framework for Sustainable Development also provides the imperative for more sustainable development, the impact has yet to be visible at the local level. Other important legislation/policy is the Restitution of Land Rights Act and the Urban Development Zone (UDZ), the latter a policy or tool to reverse economic decline in inner cities, particularly Cape Town and Johannesburg, in terms of urban development.

The above policy framework is linked to five principles of post-Apartheid land reform. These are to address:

- The racially-based land dispossession of the past
- The need for more equitable distribution of land ownership;
- The need for land reform that will reduce poverty and create jobs
- Security of tenure for all and
- A system of land management that will make land available for development, but not harm the environment.

These principles rest on 3 elements:

- Land restitution – for those who were disposed of land during Apartheid
- Land Redistribution – to those most in need to get a chance to get land for housing and productive purposes.
- Land Tenure Reform – reviewing old land policies and laws to improve tenure security for all South Africans.

Land tenure reforms has frequently been referred to as potentially the most significant of the three 'legs' of land reform (Hall, 2004).

Land tenure has been defined as the terms and conditions on which land is held, used and transacted, and critically, land tenure reform involves recognizing or upgrading the informal rights of those occupying but not owning land (Royston, 2002; Hall, 2004). This is a requirement of the Constitution Section 25 (6). Tenure reform affects the way in which people hold land, whereas land restitution and redistribution involve the transfer of land ownership from one owner to another. One of the main tenure reform initiatives has been driven by the provinces through the large scale privatization of public rental stock, by which ownership is transferred to tenants. This programme has raised the need for alternative forms of tenure, such as family title, due to the difficulty of establishing clear entitlement because of informal changes to tenancy and a variety of occupancy patterns including occupation of a single unit by more than one family. Hence, attempts to secure tenure based on de jure rights are sure to lead to conflict or fail. Ascertaining the de facto situation requires local level investigation, facilitation and dispute resolution mechanisms. Accommodating de facto rights is bound to require the provision of additional alternative land.

1.4.4. Policy and Institutional Imperatives for Secure and Equitable Access to Water and Sanitation Services.

While access to clean and reliable water and sanitation plays a key role in the public health system is recognized internationally, insufficient advances have been made in Africa and in some parts of Asia, thus UN MDG goals specifically targeting increasing access to safe drinking water and sanitation by 2015 (UN Habitat, 2015). In the case of South Africa, repressive apartheid laws and racial segregation has created a massive macro-economic policy challenge for the newly elected democratic government in 1994. Aside from key legislation such as Constitutional

safeguards, the White Paper on Water and Sanitation (South Africa. 1994); the RDP (1995-1998) The Water Services Act (1997); the Consolidated Municipal Infrastructure Programme (South Africa, 1997b) the Build Operate and Train Programme (BOTT, 1997-2001) were also introduced and government also instituted massive capital projects to eradicate water and sanitation backlogs (DWAF, 2004). However, targets set in 2004 to upgrade at least basic water and sanitation levels were not achieved in the projected seven years (Department of Human Settlements, 2012). Alongside this initiative was the introduction of the Free Basic Services policy of 2000 that was adopted in 2001. The policy was based on a national transfer to subsidise the poorer sections of the community to ensure basic services. By 2003 almost 27.7 million people were benefitting from Free Basic Services (DWAF, 2004).

Failure to meet water and sanitation targets for 2008 and 2010, did not stop government setting further targets. According to DWAF, while it is satisfied with meeting MDG targets, many South Africans still do not have access and the goal of achieving full access for all by 2014 is unlikely to be met. This is because the root causes of the water and sanitation insecurity will not be eradicated. These are linked to the ways in which land tenancy and land tenure affect water and sanitation services delivery in mainly working class informal and to some extent formal residential areas.

More recently, grievances over water and sanitation services delivery have strongly featured among the key reasons for protests (Tapela, 2013). A prominent landmark in this regard was the particularly violent protest against poor water services delivery which took place in the small settlement of Mothuhlang near Pretoria in early 2014 that claimed four lives (Timeslive, 2014). The protests focused social media attention on the prevalence of grievances and poor service delivery across the country, particularly in poor working class neighbourhoods. This development highlighted the need to underpin state efforts to redress historical backlogs with a clear understanding of the structural and institutional factors that contribute to mismatches between official records and users perceptions of water services delivery on the ground. This, combined with rapid urbanization, may be exacerbating the cumulative effect of historical and post 1994 backlogs as well as the growing deprivation-induced anger in low- and middle-income urban residential areas.

To help understand water and sanitation insecurities, the concept of social water scarcity is useful (Tapela, 2012). Social water scarcity refers to a political economy perspective on prevailing water services delivery issues in South Africa. Social water scarcity refers to the social construct of resource management which is determined by political, economic, and social power dynamics underpinning institutions that provide social relations, security of access to bases of social power and productive wealth, and stability to the social organization of human societies. This conceptualization helps to clarify some of the underlying issues which affect water and sanitation services delivery in South Africa, While the absolute number of households served with water connections have improved significantly since 1994, the growth in the population of households

and relocation from rural to urban areas has meant that the proportion of urban households without effective services (i.e. yard or house connection) has mostly remained static at an average of approximately 21% of households. Such households are yet to realise their basic right of access to water as enshrined in Chapter 3 of the Constitution.

1.5. Key Challenges to Equitable Access to Water and Sanitation Services in Selected Formal and Informal Land Tenure and Tenancy

Different land tenure and housing circumstances have created a range of challenges for municipalities in terms of both service delivery and urban planning. Among these challenges is both rapid urbanization and along with it increased pressure for land, housing and accompanying services, but also the movement of backyard dwellers onto unoccupied land in the hope that this would speed up access to RDP housing (Kilian et al., 2005). Key challenges presented by selected land tenure and tenancy arrangements are summarized here for the purposes of making recommendations as to how these might be addressed by a practical framework, against the background of the historical development of legislation and policy implementation presented thus far.

1.5.1. Informal settlements and Informal Dwellings

1.5.1.1. Overview

The unplanned nature of informal settlements presents serious challenges in terms of service delivery and puts pressure on city finances through urban sprawl and the consequent impact on infrastructure development, operations and maintenance, Failure to plan for changing demographic trends has been at the heart of the development of informal settlements, informal dwellings and relatedly, the pressure on basic services (Garau et al., 2005).

Understanding the social dynamics of informal settlements and dwellings is important as solutions that do not recognize that many people are residing in such circumstances are not financially secure will in all likelihood fail. Often the key narrative in policy discourses are that people in informal settlements and dwellings do not want to pay for these services and are freeloading from those who do pay. However, the financial stability challenge entails understanding the diverse circumstances so that water and sanitation delivery models can be designed in financially appropriate and therefore sustainable ways for these settlements and dwellings. This could assist in ensuring financial operations and the maintenance stability for services.

1.5.2. Informal Settlements

1.5.2.1. Definition and Historical Context

Informal Settlements are defined according to South African census documents as 'an unplanned settlement on land which has not been surveyed or proclaimed as residential, consisting mainly of informal dwellings (shacks) (StatsSA, 2012).

Hyper-urbanisation that has characterized demographic trends in South Africa post 1994 is largely due to Apartheid policies that consigned the black population to homelands and denied them property rights in urban areas. When South Africa held its first non-racial democratic elections in 1994, an estimated 1.06 million households comprising 7.7 million people lived in informal settlements. Whilst post 1994 Housing Policy has been aimed at redressing these inequities and structural imbalances, hyper-urbanisation has ensured the continued presence of informal settlements and informal dwellings.

1.5.2.2. Salient Features of Informal Settlements

Informal settlements are variously located in diverse urban and rural settings. The types of dwelling are also diverse and include house or brick structures on individual stands or yards, traditional dwelling structures such as huts, apartments within blocks of flats, cluster housing, semi-detached houses, formal houses/flats/rooms in backyards, informal dwellings/shacks in backyards, and informal dwelling/shacks not in backyards (e.g. informal squatter settlement). Informal settlements are also characterized by complex relationships and transactions, which are mostly outside of the ambit of formal systems. In spite of official attempts to prohibit it, landlordism occurs as powerful individuals purchase houses informally and then rent them out. It is common for several tenants to rent from a landlord on a plot of land that has been bought, subdivided, inherited and sold several times under informal land arrangements. Thus land ownership documents are frequently outdated. Security of tenure and not legal title has also consequently become more important (Scott, 2013).

The level of informality of settlements has consequences for water and sanitation delivery. For example, a study undertaken in 2004 by Theron and De Swardt showed that 59% of households in Khayelitsha and Nyanga relied on water obtained from taps outside their homes, and 30% of these respondents reported difficulty accessing communal toilets.

The lack of access to basic services has, in policy terms, sometimes been blamed on the illegality of such settlements. For example, the Policy draft for the City of Cape Town (CoCT) states that informal settlements are characterized by a lack of tenure, public spaces and public facilities, inadequate access to municipal services, a lack of convenient and safe access to services and non-compliance with planning and building regulations (City of cape Town, 2013). The draft states that while the CoCT have made good progress in decreasing service delivery backlogs to informal settlements, the organic form of informal settlements makes it difficult to provide municipal utility services such as water, sanitation, electricity access and waste removal at the required

minimum basic national standards.

According to Urban Landmark (2010) government has until recently viewed its response to informal settlements largely in terms of their replacement or eradication by subsidy driven housing delivery. However, given the time-lag in these processes of upgrading has led to the realisation by various stakeholders, including government that these traditional approaches to informal settlements need to be complemented by an increasingly innovative course of action in which land rights and urban services are continuously upgraded until and acceptable standard is achieved.

The 2009 National Housing Code thus identifies key characteristics of these areas as follows:

- Illegality and informality
- Inappropriate Locations
- Restricted public and private sector investment
- Poverty and vulnerability
- Social stress

Challenges of access to water and sanitation to these areas stem from the departure point that many residing in these areas are too poor to pay for services. However, informal settlements are diverse in terms of economic profile. Yet differentiated tariffs may be prohibitive to administer. Furthermore, in cadastral-based service systems the owner of the property is billed for services, but in informal settlements legal tenure rights are largely unrecognized, making billing difficult. Municipalities need to rethink billing systems in the light of this.

Informal settlements also pose challenges in terms of illegal connections. This is often the outcome of poor planning and adaption by municipal officials and planners. When people find they have not been catered for, the need for services can lead them to improvise in the way of illegal connections.

Poor households in informal settlements also struggle the most when having to utilize coping strategies to deal with a lack of water and sanitation. This extra burden tends to fall on the poorest and women, in terms of time and cost to access safe water and sanitation.

Addressing these problems has been influenced by two contesting ideologies, namely Rights to the City on the one hand and Cities without Slums on the other (Huchzermeyer, 2011). In South Africa, the rights to the city lobby has actively resisted attempts by a number of municipal authorities to eradicate “the embarrassment of slums”. While there might be an ideological dimension to the protests that burgeoned to unprecedented levels over the last decade, the reality for many of the urban poor is they bear the brunt of the lack of secure access to water and sanitation services due to a dearth of robust institutional responses (Tapela, 2012).

The problem of institutional inertia is often characterized as one of lack of investment by major stakeholders and shortage of available land and space (Scott, 2013). However, added to this, in the South African instance institutional responses have lagged behind in terms of policy, planning and investment. Budgetary allocations from national level have fallen short of requirements for eradicating massive backlogs. Furthermore, despite their 'developmental role', municipalities have neither sufficiently anticipated urban growth nor adequately prepared for associated need for massive financial investments in social infrastructure and services (Watson, 2003). Furthermore, the planning paradigm has been more orientated towards infrastructure development than service delivery (Scott, 2013).

While the national objective remains the delivery of formal titles to land, government's tenure and housing intervention has been a complex process. Because of this, informal settlements land markets remain operational, but their lack of transparency reduces their efficiency and often reinforces problematic power relations in communities. On the basis of this, urban landmark recommends an incremental approach rather than upfront delivery of the final product'. Such alternative ways of recognizing informal settlements and promoting tenure security "allow action that makes a difference right now, rather than at some unspecified date in the future". Progressive realization of rights would include making provision for alternate forms of legal tenure, such as short term leases, rental and servitudes of use. This approach also emphasizes the importance of administrative mechanisms for increasing the recognition of informal settlements and thereby tenure security. Such mechanisms include council resolutions, utility bills, street addresses and letters of occupation (Urban Landmark, 2010).

Against this backdrop of poor access to water services in informal settlements, a report on Non-Revenue Water in South Africa states that per annum, a total of 1580 million cubic m per annum goes unaccounted for in municipalities, an estimated 1 third of the total water supplied. The loss per annum is calculated at around R7 billion. Aside from aging infrastructure and non-payment, a significant proportion of this amount could be made up by the consumption of informal settlements. The actual number of residents in these areas is often not known. As the South African Institute of Race Relations Post Enumeration Survey (PES) observes, a population undercount of approximately 14.6% due to outdated estimates of township sizes in areas like Khayelitsha.

1.5.3. Informal Dwellings

Within the context of informal settlements the varied issues such land tenure, access to services, housing structure and regulatory compliance have bearing on the informal dwellings found within them. Informal dwellings may be defined as such in a number of different ways. These are listed below:

1. Land tenure status on which the dwellings are built can be informal;
2. Impermanent materials can be built to use them;
3. Theses dwellings are often not connected to municipal services;

4. Informal dwellings are often located in densely populated, unplanned settlements which means that providing services can be challenging;
5. Informal settlement demographics can be fluid due to employment opportunities and accompanying flows of rural-urban and urban-rural migrations.

This characterization must also be considered in the context of diversity, and not all informal dwellings correlate with the above characterisation. However, as a generalization, government policy and legislation often actively impedes the ability of people residing in informal dwellings located within informal settlements. Although governments can passively accept the settlements, they often remain excluded from access to water and sanitation (Garau et al., 2005). Such exclusions are often done as a way of curtailing the development and the increase of the informal settlements that do not comply with regulations and where land is occupied illegally. It is also because government's approach to human settlements housing and basic services has tended to be biased towards a cadastral base for planning purposes not only for settlement and housing but also for the delivery and payment of services (Rubin and Gardner, 2013)

The unplanned nature of such settlements and the unsuitability of occupied land in some cases make it difficult for municipalities to plan and provide services.

1.5.4. Formal and Informal Backyard Dwellings

Backyard dwellings historically are linked to the deliberate neglect in the Apartheid era of informal settlements. Some backyard dwellers are renting from landlords that are themselves tenants. For example, in 2011, there were 41 000 backyard dwellers in the Cape Town Metro's 43 500 rental units (Lategan and Cilliers, 2013). Often backyard dwellers have no lease agreements, making dispute resolution difficult and also making tenants more prone to being denied access to water and sanitation services.

There are six types of backyard dwellings:

1. Room sharing – rental of a room in a primary dwelling by a separate person or household
2. Secondary shacks or rooms – informal dwellings built with impermanent materials behind brick or prefabricated houses;
3. Self-contained units with their own toilet and tap;
4. Second dwelling units – granny or garden flats often found in middle and upper class suburbs;
5. Small scale tenements – that sometimes replace the primary structure and consist of multiple rooms with shared facilities including water and sanitation;
6. Commercial and retail spaces that can contain a large amount of enterprise activities like spazas or shops.

Of these the vast majority of backyard dwellers reside in backyard structures made either of bricks and mortar or shacks. Not all backyard dwellers are poor. Most people residing in these

dwellings are middle-income with earnings of between R1600 and R12 000 reflecting that this housing typology meet the needs of those who fall into the gap market and struggle to get bonds, or on waiting lists, or are not having their housing needs met by formal housing (Rubin and Gardner, 2013). This has implications for the user pays principle in terms of water and sanitation, meaning many backyard dwellers can actually pay for the services they utilize. The increase in backyard dwellings could be seen as a way to avoid insecurity of tenure and lack of basic services that characterize informal settlements, however the quality and access of services is highly dependent on the level of service afforded to the primary structure, meaning that in circumstances wherein the primary structure's inhabitants are poorer, or have poor services for the backyard dwellers, they are negatively affected. Moreover, the informal nature of most backyard tenancy arrangements creates a weaker tenure that affects the water and sanitation rights of tenants.

Backyard dwellers also provide both advantages and disadvantages in terms of the provision of water and sanitation services. An advantage is they allow for densification and thus offer the opportunity for more efficient and effective service delivery, however where this reaches above design specification limits, it can also lead to infrastructure overloading and increased levels of breakdowns (Bore-Saladin and Turok, 2013).

Backyard dwellings also present a challenge in terms of the payment for services rendered as there are circumstances where informal backyard dwellers will pay for their use of services to the landlord, but the landlord does not necessarily pay for services to government, or pays sporadically (Govender et al., 2011). The dynamics around payment for services between tenant and landlords, if not managed adequately, can thus lead to growth in arrears, service cutoffs and tenant-landlord conflict. The lack of adequate infrastructure to targeting informal backyard tenancy settings can lead to the deterioration of the primary structure and in-yard infrastructure, thus affecting the quality of life of not only the tenants but also household members residing in the primary structure.

Access of services is largely dependent on the typology of backyard dwelling, and legally approved structures provide for better management of services, including lease agreements, different services have distinct billing arrangements. Thus while it is possible to provide separate electricity pre-paid meters to backyard dwellers, it is not possible to provide separate metering and billing for water. Consequently, due to insecure tenure and tenancy arrangements, informal backyard dwellers (which include the most economically marginalized South Africans) struggle to access free basic services that are meant to benefit the poor. Backyard dwellers residing in CoCT Rental Housing have had water meters installed. This has been possible due to the legal status of the primary dwelling, enabling the City to provide a solution that provides water for backyard dwellers but also provides for billing of water to backyard dwellers.

1.5.5. Cadastral-Based Tenure and Services Delivery

The cadastral systems are a public inventory of immoveable property through which the

relationship between people and land is systematically managed for surveying and registering land. The system has two sub-systems: land registration and cadastral surveys (Kitchin and Ovens, 2013). The institutional structure of this system is made up of four Surveyors-General and nine provincial Deeds Registry Offices.

A well-managed cadastral system is important for business confidence (the banking sector) and conflict resolution as a well-managed system can prevent many land disputes. However, the system does not work well for the poor in that many do not have the money to have their land surveyed and formally registered. Moreover, in informal settlements where land is not officially owned, inhabitants are unable to upgrade due to lack of ownership.

The cadastral system needs to be reformed in order to address the needs of millions of South Africans residing on land with insecure tenure. Cadastral systems have increasingly played a critical facilitative role as a spatial planning tool that assists in directing the deployment of resources in developing infrastructure (Rajabifard et al., 2007). Cadastral systems are thus integral parts of sustainable development and decision-making in planning (Rajabiford et al., 2007). Much of this occurs in a narrative of inclusion and exclusion as those communities and people that often struggle for services are those outside the cadastral system, while those with services fall within the system. South Africa's approach to services is largely tied services planned on an individual cadaster registered land parcel with one house and one household. This is not the reality of millions of South Africans residing in informal settlements, informal dwellings and inner city buildings. Many of these people reside in diverse circumstances that are often not compliant with regulations and legal norms and are not part of the cadaster system, thus allowing them to fall through the cracks in terms of planning water and sanitation.

1.6. Key Questions Arising from the Tenancy, Tenure, Water and Sanitation Analysis of Deliverable 1

This chapter has provided a summary of the most important aspects of analytical and policy analysis on the challenges facing municipalities not only in terms of service delivery but urban development planning. Rapid urbanization has led to additional land tenure and tenancy pressures and attendant service delivery problems. Failure to plan for the growth of cities and changing demographic trends is at the heart of the development of informal settlements, informal dwellings and the pressure on basic services. Understanding the dynamics of people residing in diverse informal settlements and dwellings is important. Solutions that do not recognize that many people residing in these circumstances on financially insecure are bound to fail. Yet the narrative that people residing in these areas are 'free riders' and are freeloading from those who are prepared to pay is also insufficiently cognisant of the complexity of the social realities of the urban poor. The need for innovative approaches to addressing rural and urban challenges of land tenure, tenancy and water service delivery cannot be overstated. Urban Landmark's findings challenge conventional understandings of formal and informal markets. They show that these socially embedded land markets allow us to understand how urban territory is carved up and managed,

such findings also transform the way we conceptualise formality and informality in African cities, allowing us to see how informal urban economies are co-produced by the state and non-state regulatory systems. These 'hybrid economies' have implications for how we understand governance, markets and the role of the state in our cities. It is reasonable to suppose therefore, that since informal urban economies are co-produced by the state and non-state regulatory systems, then effective strategies to deal with challenges of land tenure and tenancy will require a reconciliation of the roles of governance institutions (GI) namely the state, markets and civil society and the 'systems to be governed' which include the dynamic social, economic, cultural political and ecological systems prevailing within hybrid economies associated with South Africa's rapid urbanization. In confronting the unfolding challenges there is a need to find opportunities for alternative approaches in rural and urban development, and thereby to secure access to water sanitation services, particularly by the marginalized poor in informal water economies and land and housing markets.

Key Questions that emerge in developing clearer understandings towards practical policy frameworks that can address the complexities of land tenure and tenancy are:

- How is the mix of land tenure and tenancy arrangements within and/or outside the ambit of the formal land registry system characterized and what is the effect of such characterization on access to and provision of water and sanitation services?
- To what extent do current pro-poor service provision strategies take differences in tenure and tenancy profiles into account?
- How do tenure security and tenancy arrangements affect patterns of access to and investments in water and sanitation services?
- What are the appropriate service models for different tenure and tenancy profiles?
- What is the role of formal and informal service providers in this regard and how can stakeholders such as the state, non-governmental organizations (NGOs); civil society organizations (CSOs) and the private sector, support this?

Chapter 2 presents a characterization of the mix of land tenure and tenancy arrangements that fall within and/or outside the ambit of the formal registry system in selected low- and middle-income areas of South Africa. The mix is presented in the form of a typology and draws on the Water and Sanitation for the Urban Poor Framework (WSUP) for dealing with land tenure and tenancy challenges in water and sanitation services delivery.

CHAPTER 2: TYPOLOGY OF URBAN AND RURAL TENURE AND TENANCY ARRANGEMENTS FOR WATER SERVICES DELIVERY

This chapter presents findings on the types of tenure and tenancy within which people access water and sanitation services. Since housing type as well as tenure and tenancy are strong determinants of the quality of access to water and sanitation services, the chapter summarizes the key aspects of the policy background, specifically the 1994 White Paper on Housing and the Breaking New Ground (BNG) Plan of 2004. Thereafter, the chapter presents a review of generic criteria used in various approaches to classification of types of housing, tenure and tenancy arrangements. The chapter concludes with the outline of a typology of urban and rural tenure and tenancy arrangements for water services delivery in South Africa.

2.1. Background

2.1.1. White Paper on a New Housing Policy and Strategy for South Africa (1994) and the Breaking New Ground Plan (BNG) of 2004.

The previous chapter highlighted how the 1994 White Paper on Housing outlined and formed the basis of the newly democratic government's response to the Apartheid housing crisis legacy. Government adopted a phased approach to delivering subsidized housing and related social services to low-income households. In the main, this took the form of over 2 million RDP houses, essentially low cost single story structures characterized by small size, one room and a toilet. Access to water for RDP houses varied, from an in-house tap to yard tap or communal standpipe not more than 200 m from the dwelling unit.

RDP houses came with many drawbacks including peripheral location from economic centers, building quality and value concerns and other Quality of Life Issues (QOL) to do with their small size and structure. Furthermore, they did not meet the increasing demand for housing in urban areas, leading to a 'sense of impatience', which contributed to the proliferation of informal living arrangements (Tonkin, 2008).

A decade after the White Paper on Housing the Breaking New Ground (BNG) policy document signified a re-focusing of government commitment towards "national turn-around" in housing services delivery and the development of sustainable settlements and quality housing.

Key policy shifts within the BNG policy were threefold:

- The policy recognized the need to move away from the commodified focus on housing delivery towards more responsive mechanisms which address the multi-dimensional needs of sustainable human settlements
- The Policy also envisioned a diversified rang of support measures which are able to accommodate variations in qualification and affordability, tenure preferences and investment priorities;

- The BNG also acknowledge the need to stimulate the supply of a more diverse set of housing environments and settlement types, through greater choices of housing types, densities, locations, tenure options, housing credit and delivery routes.

The plan proposed a social or medium density housing programmer which covered rental options and alternative tenure options. The latter includes incremental housing options (see Figure 2.1. below). The incremental approach refers to phased approach whereby people gain access to housing opportunities incrementally, starting with 'right of tenure' and rudimentary services, then basic services, then a house. This model is can be adapted for both rural and urban areas. The plan also covered rental of cooperative housing options. Further to pre-existing housing types the BNG Plan added housing market based programmers to incremental Types of housing, on-farm/off-farm housing and indigenous technology grants to Rural Housing Programmed and emergency housing under in situ upgrades of informal settlements.

This study finds the BNG classification of housing, land tenure and tenancy useful. Below the generic criteria for classifying housing types is presented in summary form.

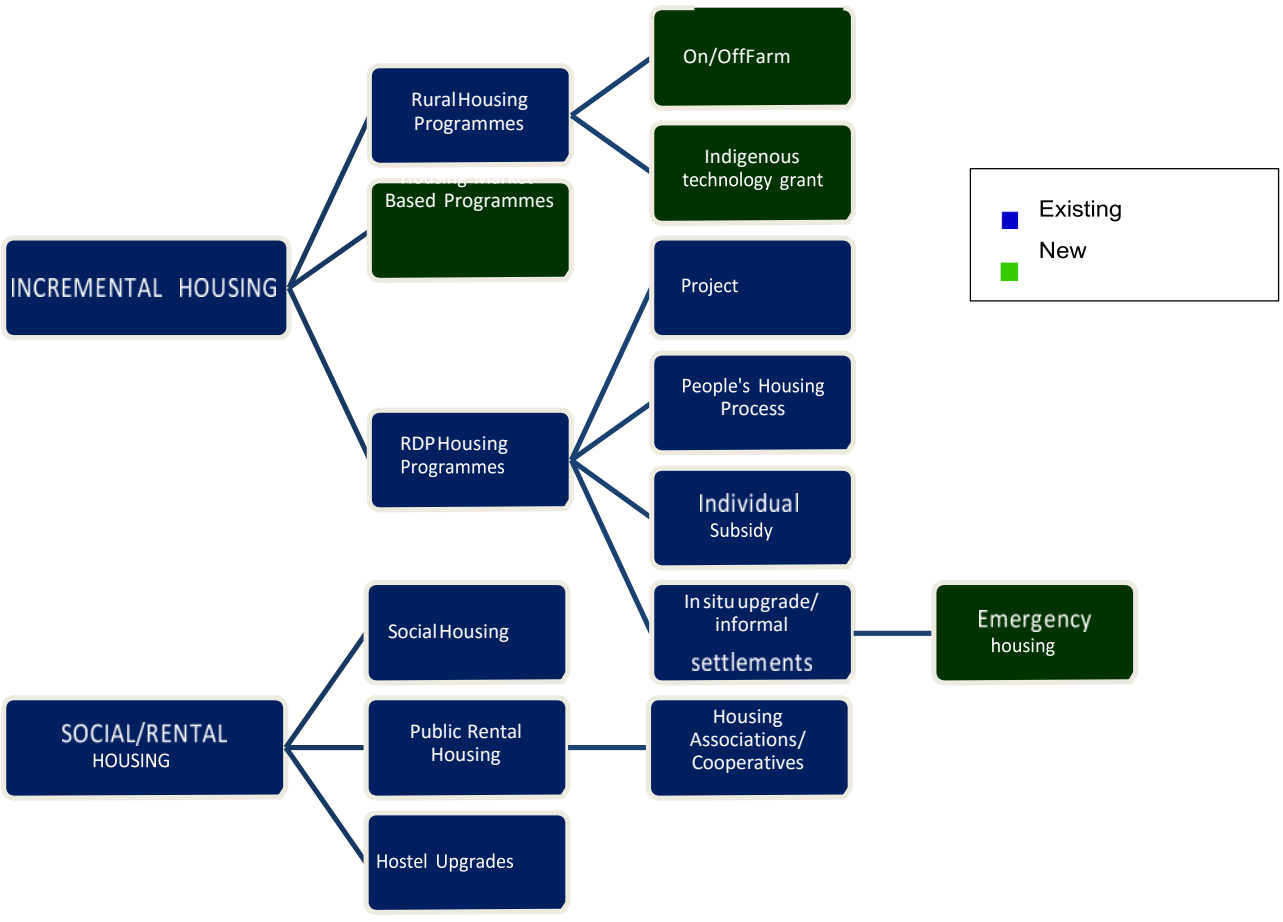

Figure 2.1.Generic criteria for classifying housing types

2.2. Generic Criteria for Classifying Housing Types

2.2.1. Density

At basic level housing can be classified according to density. Three categories are commonly identified namely high density; medium density and low density, although density can be fluid and can also refer to either population density (number of people per hectare) or dwelling density (number of dwelling units per hectare). Although housing density does not provide much clarity about the socio-economic characteristics and differentiation of resident households it does provide information for water and sanitation services delivery. In particular, the criterion gives indication of the infrastructure cost implications of servicing different types of housing density. In practice, low density urban and rural housing tends to command higher costs of reticulation infrastructure both in terms of capital costs and operation and maintenance than more compact residential areas.

Three concepts have emerged around housing densification that are relevant to this study are the compact settlement, medium density low rise housing, and eco-density. The compact settlement refers to the process of consolidating and improving the space within an urban or rural area through increasing the density of housing and intensity of land use. Medium density housing refers, in this study, to housing developments with concentrations of approximated 40-60 dwelling units per hectare of land. Eco-density refers to high quality densification as a means of reducing the ecological footprint of a settlement.

2.2.2. Income

Housing Type is also often classified according to income level. Under this classification, housing can be termed low-income, middle-income and/or high-income type.

2.2.3. Security of Tenure

Security of Tenure describes an agreement between an individual or a group to land or residential property which is governed and regulated by a legal and administrative framework. Security of Tenure is identified as the "… key cornerstone of government's approach to providing housing to people in need" (South African Housing Act 1997). The Housing Act also places specific obligations upon national, provincial and local spheres of government to ensure that housing development "provides as a wide a choice of housing and tenure options as possible".

These provisions together with the constitutional imperative for government and the water sector specifically, are to ensure that all citizens progressively realise their human right of access to water and sanitation services as far as is reasonably possible.

This study identified six (6) categories of land and property tenure, which vary in the extent of security. These are:

- private ownership, (freehold);
- sectional title;

- communal ownership (which included cooperative ownership and communal property association ownership);
- leasehold rental;
- informal tenure;
- contested tenure.

Insecure tenure covers a wide range of situations from illegal occupation to various forms of tolerated occupation as well as occupation legitimized by customary practices but not considered legal by government or local authorities.

In this context, property rights may vary within, as well as between land tenure systems. It is therefore possible to have a high level of security but restricted rights to use, develop or sell land, or limited level of security but a wide range of rights. Rights may also depend on the period of time for which rights are agreed upon and whether they are renewable and transferable. It is crucial to note that a degree of formality in rights agreements or lease contracts can affect the level of rights as they can range from informal unwritten agreements to formal contracts between landowners and occupants (leaseholds).

A person or household can be said to have secure tenure when they are protected from involuntary removal of any kind by the state, unless in exceptional circumstances, and then only by known and legal procedure.

2.2.4. Legitimacy of Tenure and Tenancy Arrangements.

Leap (2005) attempts to provide an intermediate tool for describing the legitimacy of tenure arrangements that fall between legally acceptable and socially unacceptable ends of the legitimacy spectrum. In this study legitimacy of tenure is seen in broad terms, which includes a diversity of stakeholders, primarily water, and sanitation services users, and secondarily, governance institutions (the state, CSOs and private sector).

Leap (2005) provides criteria for determining an appropriate approach for the legitimacy of land tenure and tenancy arrangements that include the following:

- Recognition of multiple tenure arrangements
- Identification of relations and tensions between the tenure arrangements
- Finds solutions for integration and
- Increases tenure security for the poor and vulnerable, individuals and groups in order to enhance livelihood strategies, enable improved delivery and maintenance of services and promote improved equitable access to economic opportunities.

2.3. Housing Typologies

Tonkin (2008) identifies four categories of housing forms:

- Detached or free-standing housing
- Attached housing
- Apartments or flats
- Hybrid housing where two or more forms are mixed.

Table 2 shows a typology of housing found within each housing category in South Africa. The typology deliberately embraces a wide range of urban and rural geographic contexts, housing and population densities, income levels, tenure security profiles and characteristics of tenure and tenancy legitimacy. The rationale behind such a broad ranging typology is to test it on a diverse range of rural and urban contexts and thus to allow deductions to emerge rather than inductively narrowing the selection of types of tenure and thereby overlooking some types of poorly understood and/or emerging types of housing, land tenure and tenancy.

Table 2. Typology of Urban and Rural Tenure and Tenancy Arrangements for Water Services Delivery

<table>
<tr><th>CATEGORY</th><th>FORM</th><th>EXAMPLES</th><th>CROSS-CUTTING TYPOLOGIES</th></tr>
<tr><td rowspan="4">Detached housing</td><td rowspan="3">Free-standing dwelling units (one dwelling unit per unit plot of land)</td><td>Brick[3] structures in low, middle and high income formal residential areas and informal urban and rural settlements</td><td rowspan="5">Typology of Settlements (SACN, 2006):
• Metropolitan Cities
• Secondary Cities
• Large Towns (once in ‘white’ South Africa or old homeland capitals)
• Small Towns providing crucial access and services functions
• Dense rural settlements (including those displaced and located in former homeland boundaries and those located elsewhere)
• Dispersed and Isolated small rural settlements Land

Use Types:
• Urban formal residential Urban Informal settlement Urban Informal residential
• Traditional community: formal residential Traditional community: informal settlement Parks
o Recreation areas and state parks
o Forest
o Military training ground</td></tr>
<tr><td>Mud structure, often in traditional rural communities</td></tr>
<tr><td>Temporary zinc, wooden and/or plastic dwelling unit in informal settlement</td></tr>
<tr><td rowspan="3">Attached housing</td><td>Row or Terrace housing</td><td rowspan="3"></td></tr>
<tr><td>Maisonettes (low rise stacks)</td></tr>
<tr><td>Courtyard housing (e.g. simplexes and duplexes)</td></tr>
<tr><td>Apartments or flats</td><td>3 to 4 storey walk-ups (low rise)</td><td></td></tr>
</table>

CHAPTER 3: MAPPING PATTERNS OF ACCESS TO WATER AND SANITATION SERVICES WITHIN THE MIX OF FORMAL AND INFORMAL TENURE AND TENANCY ARRANGEMENTS IN SELECTED LOW- AND MIDDLE-INCOME URBAN AND RURAL RESIDENTIAL AREAS OF SOUTH AFRICA

The effects of land tenure and tenancy challenges on access to services such as housing, water and sanitation are often felt differently in urban and rural contexts. The rapid pace of urbanization and agrarian transformations are spawning newer patterns of land tenure and tenancy, which are as yet poorly understood, particularly with respect to water and sanitation services delivery and access. The emergence within South African rural areas of urban-type linkages between land tenure, tenancy, housing and access to water and sanitation services suggests a blurring of the distinction between urban and rural demarcation. Alongside longstanding and recognized forms of tenure and tenancy arrangements and patterns of water and sanitation services delivery and access, there is a need to examine newer forms.

Although institutional mechanisms, such as indigent registers and free basic services, have been useful, there seems to be a plausible need to appropriately recognize and value the multiple tenure and tenancy arrangements, and thereby effectively provide better targeted support to ensure security of access by the rural and urban poor to social services, such as water and sanitation. In particular, institutional mechanisms need to recognize the complex ways in which vulnerability factors, such as poverty, gender and dread diseases (e.g. HIV/AIDS and tuberculosis) intersect with the issues above and hence contribute to the persisting vulnerability profile of many HDIs in a diversity of local contexts within South Africa.

This chapter summarises the patterns of access to water and sanitation services within a mix of formal and informal tenure and tenancy arrangements in selected low- and middle-income urban and rural residential areas of South Africa.

The rate of urbanization in southern Africa is estimated to have increased from 53.8% to 58.7% between 2000 and 2010, and by 2025 it is envisaged that the majority of the population will be residing in urban areas. Although rapid urbanization has a fundamental impact on urban planning, design and the sustainability of human settlements, government has often hesitated to intervene in the land and property market. The unavailability of affordable, well located, serviced land therefore continues to pose a major obstacle to the provision of adequate housing for the urban poor, contributing to the growth of informal settlements, backyard rentals and other inadequate housing situations. Housing type and tenure security and tenancy profiles impact strongly on the access to water and sanitation services.

Debates that have been covered in this regard concern issues of land titling versus tenancy, and the Rights to the City versus the Cities without Slums ideological contestation which finds its way into the policy discourse on housing and water and sanitation delivery (Huchzermeyer, 2010). Related debates concern issues of sustainability, densification and the affordability of housing services. Approaches to securing tenure have been dominated by the debate about whether

titling advances secure land tenure and development in developing contexts (Leap, 2005). This has encouraged a policy inclination towards freehold or registered systems. But with the massive growth of urban populations and informal settlements there is a need to advance alternative approaches to securing tenure and tenancy. Security may be possible within different land management structures.

3.1. Classification of Tenure and Tenancy Rights

3.1.1. The land policy environment: institutional imperatives

South Africa is regarded as having a dual land tenure system. This comprises of customary tenure, derived from African Customary Law and individual tenure, also originating from Western Law (Cousins et al., 2006). The current land policy has been influenced by a broader need to address the historical injustices. In 1994, the South African government adopted a land reform target, proposed by the World Ban, to redistribute 30% of agricultural land to black people within the first 5 years under RDP.

Under the broader land reform three branches emerged which intended to redistribute 30% of agricultural land, to provide housing for poor households, to provide for security of tenure for farm dwellers and to alleviate rural poverty (South African Institute of Race Relations, 2011). These branches are: land restitution, land redistribution and land tenure reform. Land restitution involves giving back land to who were disposed under colonial and apartheid systems. As referred to in Chapter 1, notable Acts of dispossession include the Natives Land Act of 1913, the Natives Trust and Land Act of 1936 and the Group Areas Act of 1950 and 1956. Guided by Restitution of Land Rights Act, which provides for restitution of certain categories of land rights lost as a result of enforced racial segregation (Leap, 2005).

Thus the post-1994 period saw a rapid and intensive process by the State to fulfill constitutional requirements to provide land tenure security to all South Africans, regardless of social or economic status. Furthermore, the new 'rights framework' for land reform laws secures or strengthens possessory rights in certain contexts, without extending real rights

The laws covering categories of occupiers of different land types are:

- Extension of Security of Tenure Act (commercial farms);
- Land Reform/Labour Tenants Act (labour tenants),
- Interim Protection of Land Rights Act (communal land), as well administrative processes to upgrade urban tenure to title.

There is also an emerging strong political commitment to recognising a wide range of informal land rights which were previously not recognised in law or which were recognised under old order racially based legislation, such as the system of Permission to Occupy (PTO) in rural areas, or Deeds of Grant in urban areas.

The Communal Land Rights Act (CLRA) is key aspect of legislation put in place to deal with land tenure issues in communal areas, but it does not address some of the fundamental problems relating to tenure in the country (Leap, 2005). Instead, it transfers land into group ownership in the ROD system in what has been called the transfer model, thus further individualising and transferring individual portions of land to people or households. Within this framework, the Act provides for a process in which 'old order' or de facto rights can be identified and confirmed, converted or transferred into 'new order' rights of registration. It does not provide is the criteria for determining what evidence counts in identifying an old order right or what processes should be followed for adjudicating multiple old order rights competing for recognition as a new order right (Leap, 2005).

Research has shown that in as much as CLARA appears to institutionalise a process for individualising it, together with TLGFA, it appears to consolidate and extend the powers and authorities of Traditional Authorities over land. CLARA allows for 'traditional communities' to appoint their traditional councils as land administration committees, in a move many critics have argued removes democratic choice of communities. The precise role of these land administration committees in relation to individual or household rights to own individual portion remains unclear with CLARA authorising the LAC to allocate and record property rights of members, while simultaneously enabling these 'member' rights to be registered at the Deeds Office (Leap, 2005). The biggest challenges for South African land policy, according to Leap (2005) is therefore continue to be how the state reconciles the common law with customary law and individual rights with group rights.

What is at stake is that the new laws in South Africa do not replace the common law governing property in South Africa. The primacy of common law governing property rights in South Africa has had the effect of privileging 'ownership' evidenced in Deeds Registration (Leap, 2005, Royston and Narsoo, 2006). Van der Walt (1999) argues that the land reform programme has continued to privilege 'ownership' as set out in the common law above other property rights and property systems and this upholds the 'hierarchical structures of power that underlie land distribution patterns. He suggests 'use-rights oriented model' that will potentially break down the hegemony of the ownership oriented system'. Pienaar (2005) maintains that 'state support to user-rights may ensure that they are given proprietary content and receive the same protection as ownership rights' (cited in Leap, 2005).

The South African challenge is to use the law and create institutions to ensure that the land rights for all citizens are safeguarded equally, which means fixing legal content to the poorly defined rights. Poor people in communal areas and beneficiaries in land reform projects need legal institutional support for their land tenure and management arrangements so that both the community as entity and the individual members who use the land may have legally secure tenure to their land' (Pienaar, 2005).

The informality of rural land under traditional leadership has been subject to debate over years. The Traditional Leaders Governance Framework Act (TLGFA) had been drafted to incorporated and recognise customary tenure arrangements. Cousins et al. (2006: 26) states that 'effect of this is that customary systems tend to be bracketed off from systematic investment opportunities, resulting in the ongoing reproduction of what President Mbeki calls the dual economy and the ineffectiveness of the state in dealing with the inherited structural inequalities'. As rural areas continue to lag behind in development, the current administration has attempted to bring about significant change through introducing several reforms. The recent National Land Summit (2014) hosted by the Department of Rural Development and Land Reform seeks to address shortcomings identified in rural communities. The Traditional Council or Communal Property Institution (CPI) Executive is vested with the responsibility of administering land and related resources on behalf of and in consultation with households based upon decisions made through substantive quorums (Department of Rural Development and Traditional, 2014:7). This governance structure outlined above must ensure that household components are formalised as individual title holders.

The current proposals state that Traditional Councils are required to function as Moral Authorities in their areas (DRDTA, 2014:8). As title holders, their roles and responsibilities include:

- Title holder of the entire cadastral unit
- Reference Unit (governance structure)
- Adjudication of disputes
- Allocation of resources

Furthermore, CPIs are also required to perform the same roles and responsibilities as Traditional Councils. However, besides holding regular meetings with all stakeholders, they are must report to the parliament.

3.2. Towards a Responsive Housing Policy

As noted earlier, before the end of apartheid, South African cities were intentionally notorious for racially divided structuring (Freund, 2005). In 1994, at the time of South Africa's first non-racial democratic elections, an estimated 1.06 million households compromising 7.7 million people lived in informal settlements. Socio-political control

exercised through the state driven, racially discriminating policy of apartheid, firmly cemented in the South African urban form, has been analysed, and implications have been drawn for the present relationship between state, citizenship and space (Robinson 1997 in Huchzermeyer, 2003). It is this relationship that manifests itself in the 'rights to the city' discourse and perceived deprivation (Tapela, 2012). The enormity and complexity of the challenge needed to be adequately taken into consideration when housing policies were developed.

Debates on how to approach the housing policy were guided by four major considerations:

- The first issue was to address the housing and associated backlogs and therefore the target of one million houses in five years was introduced;
- The second issue was to redress the dispossession of people of their land and therefore titling was central to the housing programme both in terms of new and existing stock;
- The third was issue was to bring the market into play so that these new assets would provide financial leverage; and
- The final issue would be to reintegrate urban areas in racial and class terms (Royston and Narsoo, 2006: 4)

Guided by the need redress past legacy, the housing policy environment had to be inclusive and also attempt to change the face of urban as well as rural landscapes. One of the cornerstones of the state's extensive housing policy and implementation framework is the housing subsidy system, in terms of which qualifying beneficiaries have been entitled to a once off capital subsidy that has translated into a fairly standard one-house-per-plot physical product in generally peripheral locations where land is cheaper, with individual title (Leap, 2005; Huchzermeyer, 2003).

In some circumstances, subsidy has also been used for medium density developments with either rental or cooperative tenure-arrangements. Access to a housing subsidy project has by and large been the dominant route to officially recognised tenure in urban South Africa (Leap 2005). For Huchzermeyer (2003), this form of intervention perpetuates the structure of the South African city as informally developed settlements are replaced by fully standardized townships on cheap tracts of land. This proposal considers that a major challenge with informal settlement interventions in South Africa, however, is that they intend to eventually replace informal settlements with fully standardised layouts and housing units, and the capital subsidy framework discourages gradual popular investment in permanent structures.

3.3. Mapping Multiple Tenure Arrangements in South Africa

3.3.1. New Approaches to Housing

Though recognising the successes of delivering 1.6 million RDP housing opportunities Breaking New Ground (BNG) has been introduced. BNG identifies that despite delivery at scale, the size of the backlog has increased, largely due to urbanisation and the changing nature of demand (Leap, 2005; BNG, 2004). The strategy expands the housing mandate to accommodate lower-middle-income groups via access to a credit and savings-linked subsidy (BNG, 2004). The BNG aimed to shift housing delivery from product uniformity to demand responsiveness in of the multi-dimensional needs of sustainable human settlements (Leap, 2005).

Tenure preferences is one of the several dimensions of diversity that the BNG identifies, although according Leap (2005), it does not unpack the nature of those preferences. It is not clear if informal tenure arrangements are included. Leap observes that although the strategy identifies that access to title is a fundamental principle of national housing policy, it appears to conflate security of tenure with access to title. What made the strategy more responsive was that it was evidence-based its recognition that complex demand requires a complex supply response and as a result, identifies the need for sharper instruments (BNG, 2004). The three instruments introduced are rural housing, informal settlement upgrading and social (medium density) housing (Leap, 2005). The informal settlement upgrading instrument, located within the incremental housing area, is based on the recognition that informal settlement upgrading was previously neglected and on an identified need to be positive and proactive. On one hand the underlying logic is that increased supply, via delivery of the state assisted housing programme at scale, will result over time in the decrease of informal settlements.

The BNG has been criticised for failure to address fully fundamental issues such as unavailability or slow release of municipal/private land for housing developments. In addition, the strategy is criticised in the sense that it does not address the importance of process and informed choice (Leap, 2005). In addition, the strategy's engagement with tenure is limited to tenure form or option. Although availability of choice in tenure forms is important, tenure form in isolation from tenure arrangements within which tenure is embedded is limiting. Thirdly, policy attention needs to be given to the ability to enforce a socially meaningfully and socially legitimate tenure system, rather than only emphasising tenure options (as is currently the case) or what forms of tenure bring security. Fourthly, the strategy's engagement with local and off-register tenure arrangements is limited to a reference to 'backyard rental accommodation' which includes backyard shacks, student accommodation and granny flats

3.3.2. Customary Tenure Arrangements

Soon after the advent of democracy, majority of South Africans lived on land under

customary tenure system. 1996 census data indicates that around 15 million people lived in customary areas, approximately 83% of the rural population (Leap, 2005). Characterising South African tenure as a dual system tends to put customary tenure derived from African customary law on one side, and individual tenure derived from Western law on the other. Customary tenure is often depicted as the chaotic and eluding bureaucratic control and regulation, while individual tenure is described as formal, with registered titles and susceptible to minute regulation and future planning (Leap, 2005:27).

Formality could be better be defined as organised regularity, which would thus include those customary systems that have known and used procedures for land allocation, boundary demarcation, adjudication and dispute resolution, although the system does not deliver registered tenure. Formality suggests that the systems is known, accessible and used, and that it provides a social legitimacy that can underpin functional tenure security. Thus many South Africans have a relatively high functional tenure security that is outside of legal secure tenure frameworks.

Most investors, both state and private sector, equate formal tenure and tenure security with legal, registered title or real rights. The effect of this is that customary systems tend to be bracketed off from systematic investment opportunities, resulting in the ongoing reproduction of what President Mbeki calls the dual economy and the ineffectiveness of the state in dealing with inherited structural inequalities (Leap, 2005). The most immediate challenge in South Africa has been; 'How do customary systems relate with property systems derived from Roman-Dutch law' (Leap, 2005: 27). In support for the customary system, Leap has argued that customary ownership is firstly inter-generational in the sense that the family, past, present and future, has an active stake in the land and secondly, is linked to a notion of belonging to a particular piece of land that is ritualised through highly gendered practices of ancestral worship (ibid.)

From the findings presented in this study, it can be argued that CLARA assumes that it is possible fairly simply to bring a customary tenure system into the Registration of Deeds system. For such assumption to hold true, the conceptions of property, ownership and evidence would need to be congruent between the systems, and yet there is little research to show whether or not this is the case.

3.3.3. Registration of Deeds System

The drive to have registered tenure has been promoted as the 'best' option by many organisations, as demonstrated by UN-Habitat which states that 'legal access to land is a strategic prerequisite for the provision of adequate shelter for all and for the development of sustainable human settlement affecting both urban and rural areas. The failure to adopt, at all levels, appropriate rural and urban land policies and land management practices remains a primary cause of inequity and poverty. It is also the

cause of increased vulnerability of urban and rural habitats, affecting all people, especially disadvantaged and vulnerable groups, people living in poverty and low-income people' (UN-Habitat. 1997) Since then many international donors and national governments have over the last decades extensively promoted land titling programmes as a means of increasing tenure security, improving access to formal credit and reducing poverty (Payne et al., 2000).

The Registration of Deeds System, normally referred to 'freehold' in some countries is based on Western approaches and more specifically the common law of ownership as developed thorough the Roman-Dutch law on property. Payne and Durand-Lasserve (undated) classify this system as statutory land tenure and it entered Africa though its colonial cities. It is based on formal laws and regulations; on government agencies; on judicial decisions and documented. Land rights are allocated and confirmed through titles or other forms of ownership registration. Furthermore, under this system, the land and property rights are under the 'ownership' paradigm (the ROD system) and have the strongest rights (Leap, 2005)

Viewed from the perspective of the broader land management framework, this hierarchy of rights which privileges ownership or real rights in land is reflected in the technical processes that define and register the rights and capture the information. A juridical cadastre underpins secure land rights in South Africa, meaning that land has to be 'cadastred' if it is to be recognised by the system.

The South African formal property system is organised around a conventional *cadastral* model, namely, a land information system that has two key components or subsystems: a spatial component, the geometric description of the land parcels, linked to the textual component, the records or registers describing the nature of interests and ownership of the land parcels (Leap, 2005, Royston and Narsoo, 2006). In this context, the Surveyor General's Office (SGO) houses the spatial component and the Deeds Registry is the custodian of the Deeds information. It is generally accepted that the South African cadastre system demands stringent technical sophistication such as high-accuracy surveying based on a geodetic network of coordinates and legal conveyancing(Leap2005).

Leap further notes that 'evidence from titling experiments in South Africa over the past century suggest that registration and titling of land in former black rural and informal urban areas has had mixed results. Formal registers have not been maintained. Informal sales or intra-family transmissions, without registration, are more usual methods of transferring land in this sector'. As pointed earlier, current formal land management system in South Africa does not have mechanisms to 'recognise' land tenure rights of individuals or groups who live in contexts that function outside the formal system, that is, outside the cadastre.

Leap, (2005:30) states, 'If the cadastre system is not working for the poor or for those whose land tenure is dependent on customary principles that are 'off-cadastre' or 'off-register', what does this mean for this system in developing countries?'. It can be accepted that at this stage, registered documents (deeds, linked to survey information) still have higher legal priority that unregistered documents. Rights that are protected in terms of laws such as the Interim Protection of Informal Rights Act (IPILRA) are 'prescription-like devices… which protect the status quo of possession on an interim basis' (Miller, 2000:207).

3.3.4. Local and Off-Register Tenure Arrangements in Rural and Urban Areas

This category of tenure arrangements is vividly represented by 'informal' settlements which have 'mushroomed' in the periphery of most South African cities. This phenomenon is not unique to South Africa. The BNG states that the number of households living in shacks in informal settlements and backyards increased from 1.45 million in 1996 to 1.84 million in 2001, an increase of 26%, far higher than the 11% increase in population that same period (BNG, 2004). A 2011 Statistics South Africa report notes that between 2006 and 2011 alone an estimated 215,000 people will have migrated out of the Eastern Cape, while Limpopo province is estimated to experience out migration of just over 140000 people. In those same years Gauteng and Western Cape Province are estimated to have received approximately 367,100 and 95,600 migrants respectively (Stats SA 2011). However like most migration related statistics in South Africa, such numbers are slippery and unreliable (Pugh 2014: 171). Broadly speaking, they can be classified as follows:

- UnauthorIsed land development/informal sub-division
- Squatter settlements
- Informal rental housing
- Customary/Informal Links
- Urbanisation and the rise of informal settlements

3.3.5. Transitional Tenure Arrangements

Transitional tenure arrangements refer to land settlement contexts where past interventions have had a marked effect on current land tenure arrangements. In this context, rights holders express a desire to move along the continuum to more formalised record of land rights and regulation of land use, whilst also maintaining some elements of (adapted) customary land tenure (Leap 2005).

Some land tenure systems have moved incontrovertibly away from customary principles but they resist full incorporation into the centralised Registry and spatial cadastre. They tend to revert to more localised, affordable and practically workable arrangements. These settlements range from dense rural settlements to informal or semi-formal urban settlements. The land tenure rights might include pre-CLARA 'old order' rights such as Permission to Occupy (PTO) rights, quitrent tenure, and lapsed or semi-

lapsed 'freehold' titles. Transitional tenure systems have a potential to reveal alternative tenure systems and forms and may reveal what adaptations may be possible or appropriate at points in between the two extreme ends of the more conventional continuum.

CPIs have attempted to capture both aspects and thus can be considered transitional tenure systems. However, their interpretation varies from place to place and time to time. Transitional tenure contexts are the most susceptible to the 'planning paradigms' municipalities have inherited from the municipal planning approaches of the previous urban municipal systems

Planning still tends to be applied in a rigid fashion, resulting in the tendency to apply 'township establishment' to rural settlements that are 'cadastreless'. Some of the Acts and Laws guiding local government include:

a) Less Formal Township Establishment Act No 113 of 1991 – this act provides for shortened procedures for the establishment of townships, for less formal forms of residential settlement and to regulate the use of land by tribal communities for communal forms of residential settlement. This act is administered by the provinces and it provides for the exclusion of certain laws and the suspension of servitudes and restrictive title deed conditions (SALGA, 2011):
b) Western Cape – Cape Land Use Planning Ordinance No 15 of 1985
c) Spatial Planning and Land Use Management Bill (SPLUMB) – National legislation.
d) Western Cape Planning and Development Act No 7 of 1999 (when further amended).

According to Leap (2005), the gap between law and practice also has implications for the benefits of accessing services. In South Africa, it is generally accepted that planning is the pathway to servicing. Servicing is usually accessed after formal planning, which is interpreted to mean formal settlement layouts, surveys according to the national standards, and formal conveyancing of title through the centralised Deeds Registry.

3.3.6. Religious Tenure Arrangements

This system is important, given that religious organisations own large parcels of land in South Africa. In South Africa, churches and other religious organisations own land under different tenure systems. Some of this land is used by churches such as the Methodist church, to assist with homeless people's housing and livelihoods initiatives. The practice is based upon the church's acknowledgement that colonial rule and apartheid resulted in unequal and racially skewed land distribution, extensive land dispossession, and extreme land shortages and insecurity of tenure for much of the black population (Bolnick and Van Rensburg, 2005).

CHAPTER 4: THE RELATIONSHIP BETWEEN TENURE SECURITY, TENANCY AND INVESTMENT IN WATER AND SANITATION SERVICES IN SELECTED LOW- AND MIDDLE-INCOME URBAN AND RURAL RESIDENTIAL AREAS

4.1. Land Tenure, Tenancy and Water Services Delivery in Selected Case Studies

This chapter synthesizes key findings from Deliverable 5, which presents detailed case study analyses of 8 field research sites, namely:

- Tshikota Township in Louis Trichardt;
- eThekwini Metropolitan Area, Chatsworth;
- Kensington Township, Cape Town;
- Mfuleni Township, Cape Town;
- Sebokeng Township Emfuleni Local Municipality;
- Marlboro South, Johannesburg; Freedom Park, Rustenburg;
- Mothotlung, Madibeng Local Municipality

The primary research aimed to:

a) Characterize the mix of land tenure and tenancy arrangements that fall within and/or outside the ambit of the formal land registry system in the three selected case study sites in Chatsworth;
b) Map the patterns of access to water and sanitation services within the mix of formal and informal tenure and tenancy arrangements in the selected study sites;
c) Examine the relationship between tenure security, tenancy and investment in water and sanitation services in the selected sites.

The case studies were approached from a water, land and livelihoods perspective, and cases were selected from a variety of urban and rural contexts across various provinces.

The cases covered a range of formal and informal tenure systems, including freehold and customary tenure and various forms of tenancy.

These included:

- Sparsely populated settlements (with only a few households);
- Tribal settlements (traditional communities);
- Commercial Farm, Smallholding and/or Agri-village;
- Urban, commercial and mining areas (metros, large towns, small towns, homeland towns);
- Informal settlements;
- Industrial Areas.

The main type of dwelling types included single units (on own stand or yard); apartments; hostels; outbuildings; shacks in backyards; shacks and other structures in informal settlements, squatter settlements and/or farm compounds.

4.2. LOUIS TRICHARDT: TSHIKOTA TOWNSHIP

4.2.1. Rationale for Case Study Selection

The rationale for specifically choosing Tshikota township in Louis Trichardt, situated on the N1 highway, approximately 110 km from the Zimbabwean border, is that it has a particularly vibrant mix of land tenure, tenancy, and water services delivery issues. Tshikota township also has a long history of rural-urban and transboundary migration as well as protest action. Tshikota's residents have vacillated between secure and insecure land tenure and tenancy. It seemed plausible that this case study would yield useful insights into the complex polyrationalities around property rights and use of space that have emerged in the prevailing wave of rapid urbanization.

4.2.2. Water and Sanitation Services

Tshikota's water services forms part of Louis Trichardt Local Municipality as the Water Services provider (WSP). Although according the IDP 2013/14 to 2016/7, the right to Free Basic Water and the local municipality's commitment to implementing this right ensures that no one is completely denied access to water, residents have endured poor and inadequate access to water and sanitation services, particularly in Tshikota Township. These are partly due to weaknesses identified in the IDP which include: shortage of technical (scarce) skills, low revenue base, inadequate implementation of Land Use Management System (LUMS), political stability, inadequate implementation of risk management plan, lack of infrastructure management plan, aging infrastructure, lack of operation and maintenance infrastructure plan, inadequate implementation of policies and by-laws, non-existence water conservation and demand management, lack of teamwork and coordination and weak monitoring and evaluation. Over and above these identified weaknesses, issues of land tenure and tenancy also influence services against a backdrop of social water scarcity.

4.2.3. Methodology

The methodology used throughout the case study research consisted of a random questionnaire survey, and where possible, in-depth interviews and focus group discussions. Two areas of Tshikota were analysed: Tshikota older section and Tshikota extension. In both of these sections individual residential plots were held under freehold tenure, and contained privately-owned mixes of what is referred to as sub-economic housing. The range of core dwelling structures on individual plots included pre-1994 municipality built housing, pre- and post-1994 privately built selfhelp housing and RDP housing. Many of the plots also contain backyard rooms and shacks.

4.2.4. Demographic Profile

Since the advent of democracy in 1994, Tshikota has emerged into a low to middle-income working class residential area with a diverse demographic profile. Most of the residents are black and a smaller proportion are coloured. Many of Tshikota's residents share common ethnicity, languages and cultural backgrounds, and over the years there has been such a

blending of identities that immigrant (or foreigner), in common usage, had become synonymous with 'newer or recent arrival', often from Zimbabwe. Many of the newer arrivals from both within and outside South Africa constituted the b u l k of the tenant group. Tshikota's historical legacy as a "thoroughfare" for migrant workers still persists, although increasingly the township has become home to men and women who have decided to settle there permanently. Some saw the property market in Tshikota as real estate and had made investments to extract rents from the never-ending stream of migrant tenants.

While the area is reportedly characterized by high levels of crime that are often blamed on the migrants by local residents, landlords, both resident and absentee, generally defended tenants, who generated regular income for them. For many residents however, landlords did not seem to care about the criminal element as long as they received their rent every month.

4.2.5. Employment and Unemployment

Tshikota's unemployment levels are high and there is a high demand for municipal job and employment opportunities. Joblessness has led to a high proportion of unemployed youth of both genders roaming around the township. Alcohol abuse is prevalent and secondary sources suggest that the unemployed actively protest in social protests over a range of issues including water services delivery.

4.2.6. Housing Development: Residential Plots, Landlords and Tenants

In both Tshikota and Tshikota extension 1, the bulk of land, according to municipal records, falls into two the category of residential plots. Group housing in the form of state-funded hostels made up a negligible proportion of all residential plots. Virtually all housing can be classified as 'sub-economic', which is social housing for low-income groups. Hence larger houses that have been improved or added onto, are lumped together in this categorization. Many of the plots contain mixes of a privately owned core dwelling with a motley collection of backyard rooms and shacks. Some property owners have made significant investments to improve both the main house and backyard rooms. By contrast, other landlords had made minimal investments, erecting wooden, plastic or metal shacks.

Findings showed that the municipality had begun to demand plans and to insist on municipal approval, and had begun demolishing informal housing and extensions. Housing prices varied depending on location with in-house rooms being the most expensive and backyard shacks being the cheapest. Water and sanitation services varied considerably, with some landlords establishing rules to separate the use of water and sanitation infrastructure between themselves and their tenants.

Non-resident landlords were not available at the time of the field research. Profiling resident landlords showed that most were relatively poor, with incomes under R5000 a month, mostly from rentals. In some cases water and electricity bills were tenable, but in other cases electricity bills in particular were reported as untenable as it eroded too much of the rental

income.

Tenant Profiles were remarkably diverse with incomes ranging from R0 to R7000. The mean income was low, at R1572.

The range of employment-unemployment included the following:

i. Employment in low wage jobs;
ii. Employment in low to middle-income jobs;
iii. Self-employment in low wage informal economic activities;
iv. Erratically employed in *ad hoc* casual jobs, which made it difficult to estimate monthly earnings;
v. Unemployed and had no income;
vi. Unemployed but receiving incomes from social grants, relatives, lovers and other undisclosed sources; and
vii. Unemployed but earning non-monetary (or proxy) incomes as caretakers of properties of absentee landlords;

The unemployed tenants ranged from those who were looking for jobs to those who were not. It also emerged that the monthly expenditure of some of the respondents exceeded their disclosed incomes.

4.2.7. Local perspectives on Challenges to Effective Water Services Delivery in Tshikota

Water delivery and less so sanitation services were seen as a major challenge in Tshikota. Although RDP level of water services was purportedly at 60% by 2009 more recent reports from 2013 onwards indicate that these levels had fallen back to below RDP level, owing in particular to long water shortages. Shortages were reported to have lasted as long as two weeks and had resulted in violent social protests.

Residents reported on wide spread perceptions or 'public narratives' which were that the deprivation was relative, and that the DA led municipal government was more responsive than the ANC might be to protest. Evidence of this was cited to be in the form of the three communal boreholes that had been drilled in response to water service delivery issues. Another such self-blaming narrative was that the township size had exceed the capacity of municipal infrastructure and that further public investment would be necessary. Hidden narratives or transcripts pointed to the spatial anomalies of deprivation between poorer and wealthier areas of Louis Trichardt.

4.2.8. Investments in Water Services Infrastructure

Such investments in infrastructure were both privately and publically funded. Vhembe District Municipality had made most of the public investments in the upgrading and development of Tshikota Township's infrastructure after 1994. Private investments were mostly limited to land within privately owned residential plots. Such investments included connections of plot-level

water and sewage infrastructure to street-level reticulation networks, as well as constructions of in-house and yard water taps and toilets.

Owing to protracted lack of assurance of water supply from public infrastructure, a number of property owners had also invested in private boreholes to cater for their needs and/or those of their tenants. During periods of severe water scarcity, property owners sold water from these boreholes to other affected residents. The cost of such informal water services was R2 per 25 litre bucket of water. The significance of this price is perhaps best appreciated in light of the generally low-incomes of resident property owners and tenants.

4.2.9. Patterns of Access to Water and Sanitation Services at the Residential Plot Level

While access to water and sanitation varied, most water and sanitation facilities were provided in yard, with some variance between the availability of facilities in the house or outbuilding, or in the yard. The security and quality of access was negatively affected by interruptions in water supplies. Patterns of access to water and sanitation services basically revolved around issues of municipal responses (or lack thereof) to a rapidly growing population demand, affordability of public and private investments in water services infrastructure, landlord-driven rules governing the use of shared water and sanitation infrastructure and services, and plot-level relationships between landlords and tenants. The affordability of investments in water and sanitation infrastructure similarly varied.

For the municipality affordability issues are related to financial capacity and huge backlogs and growing frontlogs in water and sanitation services. For individual owners, affordability related to payment of bills and to make private investments in water and sanitation facilities. Within the observed category of landlords and tenants there was socio-economic differentiation in the affordability of investments and access.

During times of water scarcity, property owners (including resident and non-resident landlords) and tenants alike were compelled to individually rely on their own resourcefulness to secure access to off-plot sources of water.

In light of the recurrent water services delivery crises, many property owners had made private investments in borehole infrastructure within their individual plots, as a coping strategy. According to one key respondent, the municipality did not require those property owners who could afford to drill boreholes for themselves to submit applications for permits before they invested in the infrastructure. The rationale for not restricting these property owners was that such investments were made on privately-owned pieces of land, and the owners therefore had legal rights to do so. Effectively, land tenure rights conferred to plot owners the right to invest in this form of property development without permission or consultation. However, generalized water scarcity detracted from quality of life benefits of availability of such infrastructure for resident landlords and/or tenants.

Interests to maintain good relations prevented most of the tenants from negotiating for greater

investments by their landlords in water secure infrastructure, such as boreholes. Furthermore, the majority of landlords in Tshikota were resource poor and therefore the majority of tenants had limited options for negotiation.

Importantly, water insecurity was therefore associated with plots in which no private investments had been made towards developing water scarcity-directed infrastructure, resident owners (including landlords) and tenants of such houses were often compelled to share the use public water infrastructure. They also often subsisted on water bought from those with private borehole infrastructure or from informal water vendors, who obtained water from various water sources.

In essence, municipal investments and services delivery in Tshikota therefore fell short of expectations by both affluent and resource-poor tenants and property owners, who included non-resident and resident landlords. In this regard, expectations were not only pegged on expectations of financial returns from investments in ownership and tenant housing but also on aspirations and/or promises associated with the advent of the post-apartheid state.

This case study suggests that over and above the municipal weaknesses listed earlier that include: shortage of technical (scarce) skills, low revenue base, inadequate implementation of Land Use Management System (LUMS), political stability, inadequate implementation of risk management plan, lack of infrastructure management plan, aging infrastructure, lack of operation and maintenance infrastructure plan, inadequate implementation of policies and by-laws, non-existence water conservation and demand management, lack of team-work and coordination and weak monitoring and evaluation; many of the issues raised here in terms of challenges brought about by water scarcity are social water scarcity issues in that they are brought about by the legacy of apartheid which perpetuates ongoing governance challenges especially financial capacity. The emergence of private borehole suggests that within requisite parameters, access to funding could enable landlords to invest in infrastructure for secure access to water for burgeoning numbers of tenants.

4.3. ETHEKWINI: CHATSWORTH

4.3.1. Rationale for Case Study Selection

Chatsworth is located 25 kilometres south west of Durban and forms part of e T hekwini metropolitan area, in KwaZulu-Natal. It is typical of many townships in that it was developed during the apartheid era as a commuter settlement. Today it comprises a mix of low- and middle-income tenants and formal and informal houses with formal and informal land markets and mixes of tenancy.

4.3.2. Housing, Tenure and Tenancy Profile

Chatsworth is comprised of 9 sections, with a predominance of local quality formal housing with asbestos roofing on small plots. Another key feature of Chatsworth is the large number of back

yard dwellings, called outbuildings, occupied by both rent-paying and non rent-paying tenants, the latter frequently comprising extended family members. It seemed plausible that there may be a linkage between the building and rental of outbuildings and mortgage repayments, this plausible connection was tested in the study.

4.3.3. Methodology

Field research comprised largely fieldwork through two sets of 30 questionnaires administered respectively to landlords and tenants. The questionnaires for tenants living in Chatsworth were divided into three groups. The first group was those living in 'outbuildings' (e.g. cottages, rooms and shacks) in the formal sector. The second group was those living in an informal settlement, where no upgrading has taken place. The third group was those living in an informal settlement, where a degree of upgrading had taken place. The tenant sample was therefore made up of three groups of ten participants each.

4.3.4. Housing development, Land Tenure and Tenancy

The key objective of the apartheid state was to remove Indian people from several locations around the city and 'spatially consolidate' them. In consequence, Chatsworth was established as a mass housing project, where every available land space was to be utilized for the construction of dwellings. Approximately 20 000 housing units and around 400 blocks of flats were eventually constructed. Each block of flats had between 6 to 8 units. A 'clustering' approach was used, which meant that within and between the different sub-units there were open spaces.

Within Chatsworth, there were a number of different tenure options available. There were those who lived in the flats. These residents paid rent to the municipality, since this was effectively part of the municipality's rental stock. There was no security of tenure. If residents did not pay their rent, they were evicted. Later on, during the 1990s, these flats were corporatized and sold to tenants. With the formation of body corporates, the municipality removed these units from its rental stock. Each of these units has running water and water-borne sewerage. There were also sub-economic housing units, which formed part of the municipality's housing stock. Here residents paid rent to the municipality. This was part of a consolidated bill, which included rent, rates, water and electricity. In this case, as above, those who fell behind on their rent faced eviction.

Then there were those houses, which were referred to as 'ownership' houses. These houses could be purchased from the municipality. In effect the houses were mortgaged to the municipality. The development of the finance sector during the 1970s saw many houses in Chatsworth being mortgaged to banks and 'building societies'. Over a period of time these properties would eventually become freehold, private property.

When people began to move into Chatsworth, overcrowding was an issue, with large numbers of people sharing living spaces. As capital began to absorb the surplus labour during the

1970s, the socio-economic status of Indians living in Chatsworth improved marginally. However, Chatsworth remains a working class township, despite the increasing entry of the banks into the housing market.

A distinguishing characteristic of the township is the municipal regulation of backyard dwellings which is strictly controlled. Stringent building codes have been enforced by the municipality. Those who live in these outbuildings have both formal and informal agreements with landlords, and thus no security of tenure.

Furthermore, during the 1990s there was an explosion of informal settlements in Chatsworth. People living in informal settlements also have no security of tenure but some protection under the Extended Security of Tenure Act (ESTA). There are interesting dynamics at play within these settlements. Some settlements, for example, Bottlebrush and Crossmore, have been partly upgraded to formal housing and occupants granted title deeds. Some have built their own shacks but have no title deeds. Others construct shacks in these areas and rent or sell them. However, these transactions have no legal status as the seller has illegally acquired the land and thus the residents of these shacks have security of tenure.

4.3.5. Patterns of Access to Water and Sanitation in selected areas of Chatsworth

Patterns of access to water and sanitation vary widely. Formal and RDP type housing mostly have in-house or in-yard facilities while informal settlements like Bottlebrush and Crossmore contain a mix of in house and in yard as well as water provided to informal dwellings at the regulatory 200 m distance of the dwelling. Sanitation facilities also varied widely with unsafe access to many who live in informal dwellings. Some residents the inadequate provision of water and sanitation reduced them to second class citizens.

Even in partially upgraded areas such as Bottlebrush settlement, access to water and sanitation is not uniform with many having to resort to illegal water connections.

4.3.6. Tenure, Tenancy and Investment in Water and Sanitation Facilities in Chatsworth

The formal housing sector in Chatsworth is characterized by a variety of tenancy arrangements characterized by private freehold property where landowners enjoy secure tenure. The formal housing sector in Chatsworth where tenancy arrangements exist was characterised by private, freehold property, where landowners enjoyed security of tenure. These property owners had invested in additional buildings on their properties, which were commonly referred to as 'outbuildings'. These outbuildings were let out, in the main, on rent. Generally, these were investments in fixed property for the purpose of generating or supplementing household income. It was a fairly widespread phenomenon in the formal housing sector in Chatsworth. The presence of these outbuildings was known to the municipality, given that building plans had to be given official sanction. The municipality had a GIS system whereby any additions to buildings could be detected. Illegal

additions/alterations were dealt with accordingly. In the formal sector therefore, landlords consciously invest in water and sanitation services. These investments involve, but are not limited to, the provision of water supply within the additional dwelling. The taps are usually provided in the kitchen and the bathroom/toilet. Similarly, tenants have their own water borne toilet provided for by the landlord. Generally, landlords agreed that the installation of any additional taps or toilets on their property ought to be their responsibility, since they owned the property.

By contrast in the Road 1106 informal settlement, residents had no security of tenure, although there have not been any recent attempts to remove them. There seemed to be a tacit acknowledgment by the municipality of the permanence of the settlement. Here people relied on the municipality supplied water and sanitation services.

As far as could be ascertained, residents made no investment in water or sanitation, be it via an illegal water connection or the construction of a pit latrine.

In the Bottle Brush settlement, several patterns were discernable. Firstly, there were those whose houses were part of the municipality's informal settlement upgrading programme. These residents have security of tenure and title deeds to their property, in house taps and water-borne sewerage. Some had invested in a yard tap for their tenants as well as an outside toilet. Residents who had security of tenure and who had backyard tenants invested in water and sanitation services.

In the Bottle Brush settlement there were also those who had purchased their properties via the informal land market alluded to earlier on. They do not have security of tenure although there is a tacit acknowledgement of their permanence. These landlords have invested in water and sanitation services. The water and sanitation services are illegal. They consist of, in the main, of a yard tap and a common toilet which both landlords and tenants use.

A further category of dwellers in the Bottle Brush settlement were those who were simply squatting. Some have invested in an illegal water connection, but there are no sanitation facilities, mostly due to the fact that an illegal water connection is cheaper than the construction of a toilet. Those who are renting shacks from landlords do not have security of tenure and do not invest in water and sanitation services. They are reliant on the landlord who in some cases provides access to illegal water and sanitation services or who simply collects rent for accommodation.

The relationship between security of tenure and water and sanitation based on the empirical evidence from the Chatsworth study strongly suggests that security of tenure attracts investment in water and sanitation facilities. Conversely, the absence of security tenure does not attract investment in water and sanitation services.

4.4. KENSINGTON TOWNSHIP, CAPE TOWN

4.4.1. Rationale for Case Study Selection

Kensington is located within the City of Cape Town metropole, Ward 56, on land between Voortrekker Road and the Highway. The township, previously known as Windermere, grew against official repression in the 1940s and early 1950s to become the site of Cape Town's largest concentration of black people. This population was subsequently systematically removed through the colonial and apartheid social engineering, principally by the Population Registration and Group Areas Acts of 1950. The displaced black men, women and children were replaced by coloured people, and summarily excluded from any entitlements to buy property or live in the area. Presently, however, the socially engineered profile of Kensington is rapidly changing into a highly diverse demography and a complex mix of land tenure, tenancy and livelihoods. Alongside this change, patterns of access to water and sanitation are also changing, in some plots, and remaining the same, in others. Although Kensington, unlike Louis Trichardt, is situated furthest from most traditional sources of rural-urban and transboundary migrant black labour, the demographic diversity that is emerging is rapidly changing the terrain of service delivery according to registers of tenure and tenancy. Against this background there appeared to be a plausible need to unpack these complex urban dynamics so as to develop clear understandings of the linkages between tenure, tenancy and water services delivery in contexts such as Kensington.

4.4.2. Methodology

The Kensington study relied on rapid appraisal data collection in the form of a questionnaire administered to occupants of formal housing, backyard dwellings and an informal settlement. The limitations encountered in collecting data in Kensington included safety, time and language constraints. These notwithstanding, data collection proceeded without any major incidents. The questionnaire tended to be too long for participants as it was detailed regarding socio-economic data. Also the sensitivity of socio-economic questions meant that there needed to be much more explaining of its relevance and connection to the study, meant that the rapid appraisal aspect of the fieldwork was somewhat thwarted

4.4.3. Housing Development, Land `Tenure, Tenancy and Access to Water and Sanitation Services

Kensington had both formal and informal housing. It is possible that there were other permutations that were not identified. Formal housing development included single or semi-detached dwelling units on a residential plot, which were bought from the municipality, and blocks of residential flats, which were mostly privately-owned. On the residential plots originally planned for 'single-occupancy', there were also outbuildings, such as backyard rooms, cottages and shacks, which had become formalized through registers and were occupied by either tenants or adult family members.

Some of the formal houses were rental houses that were still owned by the City of Cape

Town. Others were owned by households under freehold title. In both the rented and privately owned houses, evidence showed a diversity of occupancy types. Some of the houses were occupied by individual families, who either held freehold title or leases from the municipality. Other houses were occupied by the family of the primary freehold title or lease holder as well as tenants, who either shared or not the in-house toilet facilities. Yet other houses belonged to absentee landlords and were entirely occupied by several tenants, many of who shared rooms as well as toilet facilities. In such houses, there was evidence of sub-letting, whereby the main tenant and/or his family rented the house from an absentee landlord then sub-let some of the rooms to individuals, groups and/or families. While some of the tenants were young people who had grown up in Kensington and/or other parts of Cape Town, many others were migrant workers from South Africa, the rest of Africa and elsewhere.

There was a prevalence of family-based and group-based back-yarding meaning that there is a high demand for housing and households use back-yarding as a means to deal with overcrowding. Also back-yarding was probably made prevalent by the economically depressed nature of the area meaning many people had limited ability to acquire their housing. It seemed that Kensington had received attention from the City of Cape Town regarding the issue of back-yarding as there were yard toilets and taps that the City has installed for some backyard dwellers. Other backyarders, however, used water and sanitation infrastructure installed by the landlords. Council was aware though, of the existence of this latter group of unregistered backyarders.

Privately-owned houses consisted of either single or semi-detached dwelling units on a residential plot. Some of the houses had not been improved since they were bought from the municipality, and these had five, four or two rooms, with the five roomed houses having toilets inside the house. Many of the privately-owned houses, however, had been enlarged and improved by their owners, such that the number of bedrooms ranging from two to five, in addition to the living rooms and kitchens. The extended houses mostly had in-house toilets. Where tenants occupied outbuildings or backyard shacks within privately-owned property, some of the owners had invested in yard taps and toilets, while others had extended the water and sanitation infrastructure to taps and flush toilets inside the outbuildings. Some of the households that owned their houses felt that they generally did not have the resources to make serious investments in water and sanitation, and even basic maintenance work of this infrastructure impacted negatively on them by forcing them to use their meagre resources to pay plumbers to fix leaks.

Municipal-owned rental houses were mostly single or semi-detached dwelling units within residential plots. Many of the house sizes ranged from five, four and two roomed houses, with the five roomed houses having toilets inside the house. The two and four bedroom houses had external water and sanitation facilities. Generally, respondents occupying the latter type of rental housing expressed preference to have their water and sanitation facilities inside their houses but said they lacked the resources to make that happen. The households that

rented their houses generally felt that the City of Cape Town did not do very well in terms of maintaining water and sanitation services on its properties and unfairly left the burden with poor households that were renting the municipal property. Respondents from the rented municipal houses also generally complained about the City of Cape Town's efforts to accommodate the water and sanitation needs of backyarders saying that the yard taps and toilets for backyarders tended to leak and in some households these were not working with households unable to raise the resources to have them fixed.

At least two pockets of informal settlement housing were identified. These were situated on land belonging to the City of Cape Town. However, since those women and men living in informal settlements occupied land without any ownership rights or negotiation with the municipal of the land, their informal settlement had not been upgraded and they did not have individual registered plots and yard standpipes. The informal settlement residents' concerns centered on water and sanitation as a shared service. Particular concern was raised regarding the state of the toilets, which were dirty in spite of the efforts of the City in deploying its janitorial service to clean toilets. Furthermore, people wanted individual access to water and sanitation services for their shacks rather than having to utilize shared services.

A new project was envisaged for Kensington, which would utilise a spatial data management system for informal settlements (VPUU). The VPUU was made up of enumeration studies that counted roofs in informal settlements as well as the number of people within a household. The households (shacks) would get numbered and if there was a previous number assigned to the household it was also captured for the sake of cross-reference. Each household that was on the data management system was issued a letter of residence (or occupancy). The VPUU data system focused on shacks rather than plots (or yards), and so the project lacked understanding of the spatial dynamics of yards in informal areas.

The VPUU data stayed with the community in a community office and was used by the community to engage with government regarding development and service delivery so that the community could speak with confidence about how many people were in the community, what their living conditions were and what they needed in terms of service delivery so that the City Council could be responsive to their issues. The data also helped the community to keep track of its growth as new inhabitants were assigned household numbers and their household members were captured. This data management system was also crucial for gaining administrative land tenure for community members so that even though they might not have legal ownership (and thus freehold land tenure) they at least would have administrative land tenure through the City Council recognizing them through certificates of tenure.

To date, the VPUU spatial data collection system had been used in Monwabisi Park in Gugulethu and Lotus Park in Khayelitsha. It had worked well enough but there were challenges. For instance; the City Council was ambivalent about the administrative tenure system as it

did not want to give legitimacy to people living in informal settlements since this would lead the City Council to be obliged to provide formal services to people in living in informal settlements situated on land illegally occupied. At the same time, however, the City Council was torn by the need to service these people who in all likelihood are going to be living in informal land tenure circumstances for a long time. There are also issues of cost recovery as the City would like to get basic services revenue from people in informal settlements but is not really sure how to approach things in circumstances of informal land tenure.

In summary, major issues in Kensington were:

- Improved access to housing;
- Maintenance of water and sanitation in rented housing, whereby respondents felt that the CoCT needed to improve the maintenance of council property, including water and sanitation, as expected;
- Water and sanitation solutions offered by the CoCT for households, but frequent breakdowns created financial maintenance burdens for poor households;
- Respondent households' complaints about the costs of maintenance of water and sanitation particularly for poor people; and
- Informal settlement dwellers' preference for individual water and sanitation rather than shared services.

4.5. MFULENI TOWNSHIP, CAPE TOWN

4.5.1. Rationale for the Case Study

Mfuleni Township is located in the north-eastern parts of Cape Town. The township has a varied land tenure and tenancy profile. There are formal houses, flats, hostels, backyard dwellers and informal settlements. Within the formal houses there is a prevalence of backyard dwellings, which are mostly in the form of shacks. These backyard dwellings seemed possibly not meant just for income purposes through rent but also seemed to form part of household efforts to prevent overcrowding within the main dwelling structure, thus leading to family members staying in backyard dwellings and in some circumstances not paying rent. There are also flats in Mfuleni, which are owned by the City of Cape Town and are rental units occupied by families. Furthermore, there are hostels, which also owned by the City of Cape Town and are rental units occupied by families.

4.5.2. Rationale and Methodology for the Case Study

This case study relied on a rapid appraisal methodology in the form of a survey questionnaire. The data collection focused on capturing the land tenure and tenancy mix in the area. The questionnaire survey presented a challenge owing to respondents' unwillingness to respond to some of the questions. Furthermore, some people were very apprehensive about signing the consent forms, which also meant longer time spent on explaining the consent form.

4.5.3. Land Tenure and Tenancy

It was interesting to note that there seemed to be informality in the landlord-tenant relationship among residents living in the flats and hostels that are owned by the City of Cape Town. This informality seemingly played itself out the most with regards responsibilities for maintenance of water and sanitation services infrastructure, with residents feeling the City as landlord shirks its responsibilities. Moreover, there seemed to be an unwillingness to pay for rent amongst the hostel residents. This meant that in effect there is also an unwillingness to pay for water and sanitation as the rent bill was part of the services bill that includes water and sanitation.

The informal settlement had not been upgraded and residents had not been allocated their own stands, which are registered in the cadastral system or at least administratively with the City of Cape Town, thus still depending on shared communal water and sanitation facilities Frustration was evident among community members regarding the slow pace of registration and allocation of cadastres by the City of Cape Town and national government. The land was said to be owned by the city. Demand for more housing seems to be a burning issue in Mfuleni, given the prevalence of family backyarders.

4.5.4. Water and Sanitation services

Most formal houses in Mfuleni had yard taps whilst some also had household taps. The older formal houses had toilets outside whilst the RDP houses had toilets inside the house. There were also instances of RDP houses having informal extensions. Even though in the formal houses there were instances wherein the water and sanitation did not fit the needs of the households (e.g. only having a tap outside or having one toilet inside when there is backyard dwellers), it seems that lack of financial resources was a hindrance in households developing their water and sanitation services to meet their needs.

Water services in the informal settlement were provided through communally shared standpipes and flush toilets (not clear how many). Of major concern to residents were issues of maintenance of toilets, which were frequently vandalized. Such vandalism was said to be connected to criminality in the area. Criminals stole toilet doors, levers and cisterns to resell them. Hence, there were always toilets that were out of use, which the city needed to maintain. Respondents criticized the city for sometimes being slow in fixing these toilets. No views were put forward regarding how to deal with the issue of criminality.

In summary, major issues in Mfuleni were:

- Access to housing;
- Informal settlement residents having to utilize shared community water and sanitation services, which they did not want;
- Challenge regarding unwillingness to pay for water and sanitation services in the hostels
- Informal settlement residents' struggle to have effective rules setting and compliance amongst themselves, who use shared water and sanitation facilities;

- Communication between the City and the residents in the informal settlement, which was viewed as not very good since there seemed not to have been clear communication regarding the cessation of janitorial services to clean the toilets in the settlement;
- Safety issues in the area, meaning female residents were particularly vulnerable when using shared sanitation services;
- Shared sanitation services that were not well maintained, in terms of cleanliness, and much of this seen as the fault of community members that do not clean the toilets after they use them; and
- Poor maintenance of rented public housing, such as hostels and flats.

4.6. SEBOKENG TOWNSHIP, EMFULENI LOCAL MUNICIPALITY

4.6.1. Rationale for Case Study Selection

Emfuleni Local Municipality is one of three local municipalities comprising the Sedibeng District within Gauteng Province, south of the City of Johannesburg Metropolitan Council Area. It is located close to the Vaal River. The municipality is largely urbanized, covering an area of 987 km^2, with a population of approximately 720,000 in 220,000 households. It also supports considerable industry and commercial operations. Emfuleni municipality is strategically located with access to an excellent road network including the N1 national route.

The local municipality has a rich history that spans from the Anglo Boer War (1899 to 1902) through the Sharpeville massacre of 1960 to the signing of the democratic South African Constitution in 1996.

Emfuleni's reputation as an arena of some of South Africa's ground-breaking moments has prevailed well into the post-apartheid era. Since 2005, violent social protests by disgruntled black women and men living in low-income residential areas have catapulted the municipality into the ranks of South Africa's protest 'hot-spots' (Tapela, 2013). Grievances over water and sanitation have featured prominently among reasons given for many of the protests. Such grievances need to be seen in light of the legacy of dualism that prevails in Emfuleni municipality's space economy.

4.6.2. Methodology

This case study is based on rapid appraisal fieldwork in Sebokeng from the 14 to 16 September 2015. The research team focused on two areas of Sebokeng, namely, Zone 11 and Sebokeng Hostels. Questionnaires, focus groups and in-depth interviews were variously used to collect data.

4.6.3. Land Tenure and Tenancy

Zone 11 Formal Housing Area: Land Tenure and Tenancy

Most of the respondents from Zone 11 lived in houses that they owned under freehold title. Backyard rentals were not particularly prevalent in Zone 11 but compounding was. This

illustrated that younger residents of the area were probably struggling to get their own accommodation. It seemed possible that this could be due to financial constraints or lack of adequate housing opportunities for younger people. Overcrowding in houses was partly due to poverty, as people were forced to stay together because they did not have the resources to get their own accommodation. It also indicated the existence of livelihood strategies wherein fewer numbers of income earners supported larger proportions of unemployed and dependent people within their extended families.

Sebokeng Hostels: Insecure Tenancy

The hostels were made up of family hostels as well as singles hostels. The singles hostels were rented out per room. Since the rooms were not the same size, the rentals differed. The smallest room was R27 a month, the medium-sized room was R37 per month and the biggest room was R57 a month. Rental for a family hostel unit was R81 per month. The hostels are owned by the municipality and, effectively, the municipality is the landlord.

Generally, the process of occupying a hostel room or family unit occurred either through informally buying it from the current tenant, who would then assist the prospective tenant to go to the municipality and register as the new tenant whilst they de-registered themselves as the current tenant. In one case a prospective tenant paid R5000 for a hostel room. Once a tenant was registered then they were on the tenancy system of the municipality and could then receive rent bills in their name. These monthly rent bills were called "Masakhane" and seemed to be part of an indigent programme for Sebokeng.

Masakhane operated on a flat rate for basic services, such as waste disposal, electricity and water services. However, in the case of the hostels, the flat rate also covered monthly rental. Hostel dwellers tenancy became insecure if they did not have Masakhane status and consequently did not receive monthly flat rates for rental and basic services. Without Masakhane status, a hostel dweller was a squatter and could be evicted at any time. The difficulty with Masakhane status occurred when the registered hostel tenant was not around to de-register themselves from their allocated hostel room to make way for the new tenant. There were a few cases of this, particularly associated with cases whereby the previous hostel dweller had passed away and the current dweller was left in limbo as he/she struggled to legitimize their tenancy in the hostel. One respondent alleged that hostel leadership and municipal officials collaborated to provide Masakhane status for some people at a fee.

Access to houses was the most important issue for the hostel dwellers, and access to water and sanitation services was viewed as a secondary issue. Hostel dwellers had been waiting for better housing since the end of Apartheid and had been made many promises. Some of these houses had been built but were still unoccupied. Upon allocation of the new houses, the old hostels were supposed to be destroyed to make way for the building of more houses that were supposed to be occupied by one family each. However, there was a lack of clarity on the allocation criteria and there were complaints that the resources for the

completion of the project had been illegally used by successive municipal administrations hence the project had inexplicably stalled for years. Hostel dwellers did not feel the local councilor was active nor vocal enough regarding their issues and some felt that she was not even legitimate as she was not a South African.

In summary, key concerns for hostel dwellers were that:

- Municipality was perceived as failing to do proper O&M in the hostels;
- Hostel dwellers did not pay for water services;
- Access to houses was a priority issue for hostel dwellers; and
- Lack of secure tenancy for some hostel dwellers, who struggled to register for Masakhane status.

4.6.4. Water and Sanitation Services in Sebokeng Hostel Dwellers

The Masakhane programme in the hostels made payment for services reasonably affordable. However, there was a high level of apathy towards payment for water services. One reason for this was that the landlord of the hostel dwellers was also the municipality and there was a level of entitlement that people had in terms of dealing with the municipality. There was also a sense that there were no repercussions for failure to pay for water services. Hostel dwellers said they were in arrears for water services because they did not pay their Masakhane bills. Despite this, hostel dwellers had never experienced water cut-offs.

Zone 11

Standard houses in Zone 11 generally had a single tap in the yard and a water-borne toilet outside the house in the yard. There were very low levels of investments in water and sanitation in Zone 11. Even in circumstances where there were backyarders, there tended to be very limited investments beyond those focused on leaking pipes. There were also limited non-financial investments, such as rules governing the use and management of water by backyard dwellers. The focus of landlords tended to be towards rent payments. For family members living in backyards, there tended to be rules governing the use of yard taps and such people also tended to use in-house water and sanitation facilities.

4.7. MARLBORO SOUTH, JOHANNESBURG

4.7.1. Background and Rationale to the Case Study

Marlboro South is an area that was zoned as industrial in 1980 and was originally meant to act as a buffer between black and poor Alexandra and rich and white Sandton. Since the early 1990s parts of the area effectively became residential as people with no accommodation were lured into renting space in the some of the factories that some owners simply abandoned or ignored. Many of the persons who were positioning factories as spaces for rental accommodation were former employees who stayed in the abandoned factories and utilized their superior knowledge of the history of the buildings and their owners to paint themselves as representatives of the owners.

Many of the respondents felt that this particular history gave them legitimacy in their occupation of the factories as they never illegally took them over but were in fact paying tenants, who risked being kicked out if they failed to pay rent. Consequently, they felt they had a right to be there and that the circumstances they found themselves in were the result of rent-seeking behavior by former employees, who posed as representatives of owners, as well as the owners themselves, who through negligence had allowed situations to develop in which their former employees falsely represented them. Moreover, there were also said to be isolated cases whereby owners themselves collected rent directly from occupants and thus were just as responsible for the circumstances of Marlboro South.

4.7.2. Land Tenure and Tenancy

The residents of Marlboro South did not own the land on which they lived. The land and factories were privately owned by individuals, who resided elsewhere. Residents did not have any knowledge of who the factory owners were as most of them did not deal with them directly as tenants. The factory tenants paid rentals of about R450 per month to occupy the factories. The rent was paid to "representatives of the owners", who kept a presence in the area through administrative offices. Failure to pay rent would lead to a tenant being locked out of their shack. Consequently, rent paying by tenants was taken very seriously and adhered to.

However, responded also stated that in 2004 the City of Johannesburg (CoJ) had moved in to evict tenants in Marlboro South. In response, tenants engaged the "representatives of the owners" to sort out the issue with the CoJ. However, the so-called "representatives of the owners" simply fled, leaving the tenants with the threat of eviction. This was when it became clear to tenants that the people they had been dealing with for years had only been exploiting them for rent with no legal status to do so. Since then residents of Marlboro South had not been paying rent and had won their legal cases against eviction by the CoJ on the basis of lack of alternative accommodation.

4.7.3. Water and Sanitation Services

There were 87 and 68 households, respectively, in the two factories that were part of the study. Generally, access to water was not seen as a problem for people living in Marlboro South's factories because they had unlimited access to water through illegal connections. This water was a stable, reliable and of good quality.

In the first factory 87 households shared the use of 4 water-borne toilets and three water taps. Three of the four toilets were built within the factory building. The fourth toilet was built by a resident tenant and was outside. The outside toilet was important as it helped to alleviate pressure on the three toilets inside the factory. The tenant who invested in building the outside toilet required others to pay him R100 for unlimited use of the toilet. The factory tenants who used the 4 toilets had keys to the toilets, which were otherwise locked. Due to the high number of people using the toilets, they were often blocked and residents constantly

had to contribute money to pay a plumber to fix them. There were no clear arrangements for cleaning the toilets. This seemed to be related to the relatively large size of the tenant population (87 households), which made it difficult to manage and coordinate tasks.

The second factory had 68 households sharing the use of three toilets and four water taps inside the factory. Since this factory was a little smaller and housed fewer people than other factories, these toilets were less prone to blockages. People living in the second factory had a roster for cleaning the toilets and the factory building as a whole, and the toilets were very clean. The responsibility for cleaning the toilets and factory lay with the women in the factory.

In summary, major issues in Marlboro South included:

- Access to housing;
- The "illegal squatter status" of residents, which kept them in limbo, unable to access water and sanitation services from the CoJ and thus forced to resort to illegal connections;
- Residents struggled with access to sanitation and had to stand in lines to use toilets that were often not very hygienic as they were used by many people; and
- Safety issues in the factory areas, which made female tenants particularly vulnerable.

4.8. FREEDOM PARK, RUSTENBERG

4.8.1. Background and Methodology for the Study

Freedom Park is located in the mining town of Rustenburg in the North West Province. This residential area is made up of an informal settlement as well as RDP housing. Most of the people in the RDP houses previously lived in informal settlements, both in Freedom Park and elsewhere, before being allocated housing. Most of the people were dependent on the mining economy either directly or indirectly. The place had a high number of migrants from other provinces, such as the Eastern Cape, Limpopo, Free State as well as the North West. Even though the area is dependent on the mining economy that is male dominated, it is however, gender balanced. This case study was based on a rapid appraisal survey questionnaire administered to residents in Freedom Park in September 2015.

4.8.2. Land Tenure and Tenancy

Three broad categories of land tenure and tenancy arrangements were evident in Freedom Park. Firstly, there were people who owned their land through freehold titles. These were people living in RDP houses. Secondly, there were people who were squatting on land they did not own. These were people living in the informal settlement section of Freedom Park. Thirdly, there were backyard tenants, who rented backyard shacks in the RDP residential plots.

Tenancy was quite prevalent. While rental accommodation seemed to be an important means of income generation for owners of RDP houses, it also pointed to the high demand for housing in the Rustenburg mining area. Some of the people living in Freedom Park had no

hope of legally accessing an RDP house, given that they were illegal immigrants from other SADC countries. This seemed to suggest that the informal settlement of Freedom Park likely being a long term settlement, particularly as there was still a great deal of migration into Rustenburg. Some of the people in the area had lost their employment on the mines but resisted having to go back home and rather hoped that their luck might turn and they could be hired again by the mining companies. For these people the informal settlement of Freedom Park was more enticing than a backyard rental situation, where they would have to commit their meagre resources to paying rent whilst they waited for employment opportunities.

In the RDP section of Freedom Park there were some investments in water and sanitation services by household members. In the RDP houses water and sanitation services were provided through a yard tap and a water borne toilet inside the house.

4.8.3. Water and Sanitation Services

The informal settlement of Freedom Park was serviced with four 'standpipes' (i.e. communal street taps). These standpipes were developed by the municipality. Community members formed a water committee that was responsible for the management of the standpipes. Whenever there were any leaks or breakdowns of the tap, the water committee collected money from households to pay a plumber to fix the standpipe. However, many people in the informal settlement struggled to reach the four standpipes since many residents of Freedom Park lived further than the 200 m radius of the norms and standards for basic water services as set by the Department of Water and Sanitation (DWS). Consequently, sections of the informal settlement had to rely on private water vendors for water services or else walk long distances to access water services. Water conveyance and storage facilities therefore were important in such a context. Also the gender division of labour affected the ability to carry larger containers of water. It was more difficult for households that did not have young men or were predominantly female struggled to get adequate amounts of water in comparison to other households. Moreover, households that had health crises also struggled under these conditions to get the level of water they need in comparison with healthier households.

In summary, key issues that emerged from the case of Freedom Park include:

- High levels of poverty and unemployment
- High demand for housing
- Municipality response to operation and management issues related to leaks was weak – households had to carry high water services arrears that discouraged payment for water services
- Informal settlement dwellers struggle to get proper basic services, such as water and sanitation due to illegal squatting on land.
- People generally did not pay for water services; the main reason given was they did not have resources.

4.9. MOTHOTLUNG, MADIBENG LOCAL MUNICIPALITY

4.9.1. Rationale for the Study

Mothotlung is located near the town of Brits in Madibeng Local Municipality, North West Province. The area is politically volatile due to highly contested internal party politics of the party that runs the local municipality. The area also has a history of poor water service delivery, but became renowned for grievances over poor delivery of water services following the killing by police of four protesters in early 1914. This case study is based on rapid appraisal research undertaken in Mothotlung on the 11 and 12 September 2015.

4.9.2. Land Tenure and Tenancy

Land tenure rights in and around Mothotlung were largely controlled by traditional leadership institutions. Respondents stated that land tenure was fairly stable and people were not badly affected by changes in traditional leadership. Moreover, there were families that had been in the area for decades that were not from the area and did not feel that their land tenure had been prejudiced because they originally migrated from elsewhere. However, there were indications that land was becoming a contentious issue in the area as youth were said to be contesting for access to land and felt they were not being allocated land by the traditional authority. To allay these fears, the traditional authority had taken steps to ensure that people did not squat on land without it being allocated to them, given that the youth had pointed to this as an indication of their deliberate marginalization by the traditional authority. A group of four men had been tasked with monitoring the village for squatters.

Connected to the issue of increased demands for land was that of compounding of households, whereby household members moved into formal or informal dwellings. Apart from urban densification issues, compounding indicated the relatively low levels of employment and poverty compelling household members to support each other through limited incomes rather than set up separate households.

4.9.3. Water and Sanitation Services

Water services at household level were in the form of a yard tap, while sanitation services were in the form of a yard pit latrine. Generally, there was low evidence of investments in water and sanitation services though generally between the two, there was a higher incidence of investment in sanitation services as people dug and developed their own yard pit latrines. Forming compounds (back-yarding not seen as income generation strategy) meant that household members continued utilizing the same water and sanitation services as members in the main household – yard taps and pit latrines.

Water services were problematic in terms of water quality and reliability as sometimes the water would be cut off, and not necessarily due to unpaid bills for services. This was very frustrating for people in the area.

Many Mothotlung residents were compelled to rely on contracted water services providers, who brought water by truck into Mothotlung. There was a lot of dissatisfaction over this approach to water services delivery, both in terms of the unreliability of the private contractor services as well as allegations of corruption in the award of tenders to contractors. Some of the respondents felt that the contractors were responsible for the water supply outages, since their businesses thrived during interruptions in water supply.

To summarize, some of the issues of concern raised in Mothotlung included:

- Complaints regarding water quality;
- Water leaks and slow response of the municipality to these leaks;
- Limited coping strategies of dealing with poor quality water hit the poor the most;
- Disaffection with local government, political leaders and processes; and
- Poverty and unemployment.

CHAPTER 5: GENDER AND LIVELIHOOD ISSUES ASSOCIATED WITH CHALLENGES OF ACCESS TO WATER AND SANITATION SERVICES

5.1. Framing the debate on Gender and Livelihoods Issues

The emphasis on gender and livelihoods by this study is premised on a view that these people-centred concepts are at the core of the relationship between land tenure, tenancy and water services delivery. Since development is never gender-neutral (Friedmann, 1992), gender and livelihood perspectives are essential components of sustainable development interventions and studies in the realm of water and sanitation services.

Although South Africa has made commendable progress in broadening access to water and sanitation services, particularly for historically disadvantaged individuals (HDI), many women and men in urban and rural areas continue to live with insecure access to these services (Tapela, 2012). As government renews efforts to reduce the growing delivery backlogs and frontlogs, there is a need to hone strategies for enhancing impacts of interventions at the lowest possible levels. These are the residential plot (or portion) of land, where water and sanitation infrastructure investments are situated, and the individual women, men and households, who live under various tenure and tenancy arrangements within such land and use the water and sanitation services.

5.1.1. Research Problem

The research problem is that, in the context of rapid urbanization and de-agrarianisation in South Africa, there are currently insufficient understandings of the characteristics of gender and livelihoods issues associated with insecure access to water and sanitation services within the diverse and unfolding mix of formal and informal, rural and urban land tenure and tenancy settings and arrangements. This study therefore addresses a need for research evidence to inform policy interventions.

The part of the study is mainly concerned with the formal and informal macro-, meso- and micro-level institutional arrangements, which mediate livelihood opportunities and gender equality through access to water and sanitation services. This component of the study gives particular attention to livelihoods of HDI women and men living in low- and middle-income rural and urban residential contexts, under varying land tenure and tenancy settings and arrangements.

5.1.2. Research Objectives and Methodology

The objectives of this component of the study were to:

- Characterize the gender and livelihoods issues associated with insecure access to water and sanitation services within the diverse and unfolding mix of formal and informal, rural and urban land tenure and tenancy settings and arrangements; and identify possible interventions to address the observed issues.

- Three axes of enquiry frame the gender component of this study's methodology. These are Sustainable Livelihoods Framework(SLF), Gender Analysis and Multiple Use Strategies (MUS)

5.1.3. Gender Analysis

Gender Analysis is a systematic way of looking at the different roles of women and men in development and at the different impacts of development on women and men. Essentially, Gender Analysis asks the 'who' question: who does what, has access to and control over what, benefits from what, for both sexes in different age groups, classes, religions, ethnic groups, races and castes?

According to the Gender and Water Alliance (GWA, 2007), the concept of 'gender', like the concepts of class, race and ethnicity, is an analytical tool for understanding social processes. Gender refers not simply to women or men, but to the relationship between them, and the way this relationship is socially constructed. Because gender is a relational concept, this study's Gender Analysis therefore includes women and men. The GWA also uses the term Gender+ as a broader and inclusive gender concept, which takes into account the similarities and differences between women and women as well as between men and men and how these determine gender power relations. Gender also takes into account factors such as age differences, caste and class, race, ethnicity and religion, which influence the position of individual and categories of people relative to others.

5.1.4. Indicators

Within the selected case study sites, the research design used qualitative and quantitative indicators, such as those used by the OECD Gender Gap Index (GGI) and the Chronic Poverty Research Centre (CPRC). Indicators include:

Economic participation:

- Male and female unemployment levels
- Male and female levels of economic activity
- Educational attainment:
- Male and female literacy rates

Personal safety

- Quality of access to water and sanitation services, from the perspectives of women and men
- Male and female perceptions on the efficacy of strategies to deal with personal safety issues

Dignity issues

- Quality of access to water and sanitation services, from the perspectives of women and men

- Male and female perceptions on the efficacy of strategies to deal with issues of dignity.

Health and wellbeing:

- Quality of access to water and sanitation services, from the perspectives of women and men
- Effectiveness of government efforts to increase public awareness of health risks and vulnerability related to access to water and sanitation services (or lack thereof), disaggregated by gender perceptions
- Male and female perceptions on the efficacy of interventions to deal with issues of health and wellbeing

Economic Opportunity

- Quality of access to water and sanitation services, from the perspectives of women and men
- Number of women with property rights to land, housing associated water and sanitation services infrastructure, relative to men
- Male and female investments in access to water and sanitation services, including time use and infrastructure development
- Wage inequalities between men and women

Political empowerment:

- Women in local leadership positions, elected and/or traditional, relative to men
- Women and men in community-level water governance structures, such as water committees
- Male and female perceptions on the efficacy of existing governance and leadership arrangements to deal with gender and livelihood issues relating to security of access to water and sanitation

5.2. Policy Imperatives for Gender and Livelihoods Approaches

5.2.1. Global, Regional Approaches

The focus on gender and livelihoods by this component of the study derives principally from global, regional and national policy imperatives relating to secure access to water and sanitation services, as well as the multi-fold benefit streams and impact areas

Associated with these. Overarching among global imperatives are the Sustainable Development Goals (SDGs), principally Goal Number 6 (Clean water and sanitation) (Box 1). Other related SDGs are Numbers 1 (No poverty); 5 (Gender equality); 2 (Zero hunger); 3 (Good health and wellbeing); 11 (Sustainable cities and communities); 10 (Reduced inequalities); 16 (Peace, justice and strong institutions); and 17 (Partnerships for the goals).

- By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- By 2020, protect and restore water-related ecosystems, including mountains and forests.

Box 1 Targets for Sustainable Development Goal 6: Clean Water and Sanitation

Furthermore, South Africa has committed to regional and global imperatives for mainstreaming gender in the water, sanitation and related sectors. Among others, these policy imperatives include the following:

- Convention on Elimination of all forms of Discrimination Against Women (CEDAW) (1980);
- Dublin Principles (Principle 4) (1992)
- Beijing Declaration & Platform for Action (1995);
- Protocol on the African Charter on Human and People's Rights on Rights of Women in Africa (2003);
- AMCOW Policy and Strategy for Gender Mainstreaming (2012);
- SADC Treaty (1992);
- SADC Declaration on Gender and Development (1997);
- Charter of Fundamental Social Rights in SADC (2003)
- SADC Protocol on Gender and Development (2008)

The Revised SADC Protocol on Water (2000) and subsequent institutional frameworks, which specifically or *mutatis mutandis* refer to gender equality.

5.2.2. National Imperatives

At the national level, the National Constitution's provisions for gender equality are contained in the Bill of Rights, which enshrines equal and inalienable rights of all women and men. This study's focus on gender and livelihoods also resonates with South African water sector's responses to the broader macro-economic policy imperatives relating to challenges of

poverty, inequality and unemployment, as articulated in the Implementation Plan (IP) of the National Water Resources Management Strategy 2 (NWRS 2) (DWS, 2015). According to the NWRS 2 IP, water and sanitation services fall under Priority 2, which relates to Infrastructure Planning, Operation and Maintenance. Strategic Actions within this priority implementation area include to:

- Align both developmental and water and sanitation delivery infrastructure plans & achieve greater integration within all planning frameworks – reconciliation strategies, Master Plans & Water and Sanitation Development (WSD); and
- Ensure that all Water Services Authorities (WSAs) develop and update water and sanitation infrastructure asset management plans – preferably GIS based on an annual basis.

With respect to livelihoods, the NWRS 2 also recognizes the importance of multiple-use water services (MUS), which embodies a holistic approach to sustainable water services that improves health and livelihoods.

Outcome 2: A long and healthy life for all South Africans

Water is fundamental requirement for human health and well-being. The NWRS2 makes provision for the allocation of water to meet basic human needs and includes a sub-strategy for the protection of water resources.

Outcome 5: A skilled and capable workforce to support an inclusive growth path

The NWRS2 recognises the importance of a technically competent workforce in the sustainable management of water resources and includes a sub-strategy for water sector capacity building.

Outcome 6: Provision for investment in water infrastructure to support economic development

The NWRS2 makes provision for investment in water infrastructure to support economic development through a strategy for infrastructure development and management and the National Water Sector Investment Framework.

Outcome 7: Vibrant, equitable and sustainable rural communities with food security for all

The NWRS2 adopts the principle of 'source to tap and back to source' and the maximisation of local water resources to improve access to adequate water for domestic and productive use, particularly in rural communities. The equity and redress focus of the NWRS2 is in line with supporting Outcome 7.

Outcome 8: Sustainable human settlements and improved quality of household life

The NWRS2 makes provision for the allocation of water to meet basic human needs and water planning that supports local economic growth and job creation.

Outcome 9: A responsive, accountable, effective and efficient local government system

The NWRS2 provides options for water resource development to meet water supply and sanitation services for a growing population and for the provision of higher levels of service.

Outcome 10: Environmental assets and natural resources which are well protected and continually enhanced

A strategic goal of the NWRS2 is the protection of water resources and associated aquatic ecosystems, and a sub-strategy for the protection of water resources and a regulatory framework for water resources are included.

Box 2 Alignment between NWRS 2 and Government's Delivery Outcomes

5.2.3. An Enabling Environment for Gender Mainstreaming in Water and Sanitation Services

An enabling environment for mainstreaming gender in the water and sanitation sub-sector is largely in place in South Africa. Firstly, a number of key gender-sensitive policy and legislative frameworks support gender provisions in the Bill of Rights (Table 1).

Table 3 Gender-Sensitive Policy and Legislative Frameworks

Policy / Legislation	Details/Comment
South African National Policy Framework for Women's Empowerment and Gender Equality (2000)	Outlines South Africa's vision for gender equality and how government intends to realise this ideal. Details the overarching principles, which will be integrated by all sectors into their own sectoral policies, practices and programmes. Avoids centralization of Gender Policy, which would entrench the marginalization of Gender in various line ministries, thereby defeating the objectives of gender mainstreaming across the board. Stipulates that the allocation of resources by various executive and legislative structures is crucial to ensuring that the policy on gender equality is implemented.
Gender Policy Framework for Local Government	Provides guidelines for an enabling environment and development of laws; procedures and practices to ensure equal rights and opportunities for women and men across local government.
Gender Equity Law	Directly addresses Gender Equity and Equality
Affirmative Action Policy	Makes provision for Gender Equality

5.3. Gender and Livelihoods Perspectives on Land Tenure, Tenancy and Access to Water and Sanitation

This chapter explores the gender and livelihoods dimensions of these transitions in relation to land tenure, tenancy and access to water and sanitation services. Issues of employment and unemployment, economic opportunities, personal safety and dignity, health and well-being and political empowerment are examined, among others. The chapter begins by characterizing the socio-economic profiles of the observed gender groups in rural and urban low- and middle-income residential contexts.

5.3.1. Socio Economic Profiles: Employment, Unemployment and Economic Opportunities

Within the transitioning formal and informal economic settings, the study found a lot of similarities in the employment and unemployment profiles of women and men in low- and middle-income urban, peri-urban and rural residential areas. In-depth case study areas included Tshikota Township in Louis Trichardt, Chatsworth Township in eThekwini, KwaDelunina Township and Jozini Bottomtown in Jozini, Sebokeng Township in Emfuleni Municipality, Kensington Township in Cape Town, Block C/Golgotha Section and Nandoni village within the Thohoyandou area.

While many of the male and female youths identified had at least high school education but were jobless, unemployment and low wages among the elderly women and men seemed to be strongly linked to low levels of literacy, lack of requisite skills, shortage of jobs opportunities, age and socio-cultural divisions of labour. Generally, more women than men were unemployed. Women in paid formal employment tended to work as manual, low-skilled and low wage labour as domestic workers as well as workers in food processing and catering, commercial and retail sector, factories, commercial farms, mines and institutional offices, among others. Others were self-employed in informal economic sectors, such as retail trade, clothing manufacture, food catering and agriculture. The majority of women, however, were unemployed and/or engaged in unpaid productive and reproductive labour, including washing, cleaning, cooking, and taking care of children and other dependents. Responsible for subsistence 'gardening', which involved taking care of small vegetable patches which they used for food and nutrition. In settings where water point sources were located at a distance from the residential plot, the chores of women also included conveyance of water for multiple domestic and productive uses, as well as the cleaning of ablution facilities in the home. The women felt that it was the women's role to do these chores. They did indicate, however, that their partners helped them with some of the tasks. For example, if the women were not around, their husbands/partners would take care of the children. Single men, who lived alone, tended to shoulder more of the burdens associated with access to water and sanitation than married and unmarried men, who relied on their wives or partners for these tasks. The women admitted though, that household responsibilities in some cases deterred women from going to find paid work.

5.3.2 Income

The incomes of most of the employed women tended to be relatively lower (often under R3000 per month) that those of employed men. In some instances, the men earned double or triple the incomes of women interviewed on the same residential plots. However, there was insufficient evidence to show such differentiation existed among women and men doing the same types and levels of jobs. What seemed to be more evident was that the employment of women in the 'softer' manual jobs perhaps yielded lower incomes than the 'harder' manual labour that was conventional considered to be within the male domain. The extent to which contingent factors such as levels of literacy and skill contributed to gender income differentiation could not be ascertained.

The majority of unemployed women relied on social grants either as their sole or supplementary source of income. Unemployed married women tended to depend on their spouses for financial support, although a few in urban areas did odd jobs (piece jobs) mainly working as domestic workers and informal traders. By contrast, many unemployed single women in these settings stated that they were financially supported.

5.4. Growth of Female Landlordism in Urban Areas and Urbanising Rural Contexts

Female landlordism and male tenancy is not a new phenomenon in South Africa, as historical studies and artworks attest (Abrahams, 1946; Bozzoli and Nkotsoe, 1991; Harber, 2011). However, there is a need to examine the growth of this longstanding phenomenon in the context of the ongoing processes of rapid urbanisation and de-agrarianisation in South Africa.

This study identified many examples of low wage earning or unemployed single women (mostly aged between 30 and 60 years), who owned RDP houses and rented rooms out to single and married male migrant workers, who earned much higher incomes and remitted some of their money back 'home' to their families. The landlords were not exclusively female. However the growing prevalence of female landlordism, as a livelihood strategy, was worth noting since it represented a growth of this hitherto narrow property owning gender group and shift away from predominant socio-cultural stereotypes of men as property owners. This unfolding pattern was found in towns like Jozini and Louis Trichardt, which were key 'stepping stones' for migrant workers from Mozambique, Zimbabwe and surrounding rural South African hinterlands. Similar patterns were observed in urbanizing rural villages situated close to the newer and expanding mining settlements, such as Steelpoort and Burgersfort, as well as in townships and informal settlements within rapidly growing towns, such as Thohoyandou and Rustenburg. In Jozini and Thohoyandou, not all the low wage earning or unemployed single were landlords, who owned RDP or selfhelp houses.

A few of the female landlords and/or their adult daughters disclosed that they were highly dependent not only on the rental income but on other financial support from relationships with their male tenants or other male tenants residing elsewhere within the neighbourhood. In the small town of Jozini in KwaZulu-Natal, for example, local South African men decried the fact that their women were avoiding them and instead "going for" male migrant workers mostly from Mozambique because these were perceived to earn more money and to be more generous than their South African counterparts. Such perceptions had led to bitterness and anger among local South African men and, in 2014, subsequent events within Jozini triggered the xenophobic violence that spread into other parts of KwaZulu-Natal and elsewhere.

5.5. Linkages Between Landlord Investment, Rental Affordability and Urban Formal Housing: Synthesis of Findings

Research findings showed that there were consistent patterns in the linkages between landlord investments in water, sanitation and related infrastructure and services, on the one hand, and the rental fees charged to tenants, on the other hand. These patterns had notable gender and livelihood dimensions in terms of rental affordability and quality of access to water and sanitation services.

In the formal housing areas, tenants tended to occupy rooms within formal houses or in the

backyard and shacks in informal settlements. In cases where tenants occupied room in-house, they often utilized in-house water and sanitation infrastructure and this was reflected in the higher rentals that such tenants paid. For example, in-house tenants paid between R600 and R800 per in-house room in Tshikota Township of Louis Trichardt and between R800 and R1000 for an in-house room in Jozini. Rooms in smaller basic social housing units, such as RDP, tended to cost less than those in the larger and higher value houses, in which property owners had made more significant private investments in infrastructure. By contrast, rooms in backyards cost less than in-house rooms. At the time of field research, Tshikota backyarders paid R400 per month for a backyard room, but this amount had since increased to R500 as from the beginning of 2016. Jozini backyarders paid R500 at the same time, and this amount was envisaged to increase to R600 in 2016. Backyard shack accommodation was the cheapest. In Tshikota, for example, shack rentals ranged from R200 to R300, depending on the size of the dwelling structure and its finishing. For tenants in the formal housing areas, payment for water and sanitation services was either included in the monthly rental fee for accommodation or, in the case of unimproved RDP or sub-economic social housing receiving free basic water, not factored in.

Among other things, a key factor determining the differences rental fees was landlord investments in extensions of water reticulation pipes and waterborne sanitation infrastructure into backyard rooms and other outbuildings.

Hence, unimproved RDP housing tended to command lower rental fees than similar housing that had been upgraded through owner investments. While this observation raises questions regarding the most appropriate investment options for tenant housing in low- and middle-income residential areas, there were notable gender dimensions to the differences in rental prices.

On the one hand, there seemed to be more young unemployed or casually employed single women than men who occupied the cheapest backyard shack accommodation, owing to their greater vulnerability to the precariousness of incomes. At the same time, such accommodation was often the most water and sanitation insecure, often lacking any other form of water and sanitation services access than either yard or street level infrastructure. Employed male and female tenants were more predominant in the more expensive in-house and backyard rooms, which were more water and sanitation secure. However, unemployed male and female tenants, including students, were also found occupying such rooms and these were variously financially supported by partners, boyfriends, relatives and bursaries. The cases of Block C/Golgotha Section of Thohoyandou and Tshikota Township in Louis Trichardt, for example, clearly showed this.

5.6. Urban Property Rights, Power and Governance Issues

The study showed that there was a strong link between the property rights and degrees of

freedom to govern, manage, use, develop and safeguard water and sanitation infrastructure. Property rights regimes commonly included private property, communal property, state property and non-property (i.e. res nullius or open access). However, the study identified a few cases in which these mono-rational understandings of 'property', land use and access to and use of water and sanitation services were contested by emerging poly-rationalities. Furthermore, 'hydraulic property rights creation' emerged as a strong determinant of security of access to water and sanitation services than mere 'rationality' around property rights, although the later was pertinent to rights issues pertaining to land on which water and sanitation infrastructure was developed. From a gender and livelihoods perspective,

5.**7. Gender Perspectives on Access to Water: Key Conclusions and Findings**

This study confirmed earlier findings that poor access to water services placed severe constraints on the livelihoods of women and men in the community. Although there was a widespread interest to use water for multiple livelihood uses, the present levels of water supply from bulk infrastructure were insufficient. The community had been told that the main source of bulk water supply, Xikundu Dam, did not have enough water supplies. Consequently, the local elected and traditional leadership had jointly prevailed upon the community to conserve water and to avoid using potable water for productive purposes, such as home gardening. However, livestock watering was allowed in the village furthest away from the dam. Water point committees had also been established to manage communal water points (stand pipes). These reported to village grassroots level water committees, which in turn reported to the Makuleke Water Committee, which was a community-level water governance structure. Makuleke women and men had varying responses to these arrangements.

In 2009, the longitudinal study found that in the village with the highest (100%) assurance of water supply, Mabiligwe, women blatantly disobeyed rules which they felt the male-dominated village water committee had unilaterally imposed upon them. One of the unpopular rules was that villagers should not connect hosepipes to shared communal taps, which were located on the village streets. The women felt that their plea for relief on the day to day hardship of conveying water bucket by bucket to satisfy multiple needs was not being heard, owing to perceptions that it was a woman's job anyway to fetch water. The women were particularly vocal and adamant that they would continue to use available water for home gardens because they needed to feed their families, and that they would continue to connect hosepipes to save time and ease the burden of conveying large volumes for livestock watering, laundry and irrigation of home gardens. By contrast, Makuleke women and men largely complied with the water conservation and demand management rules. However, the women and men of Makahlule village showed lower degrees of compliance.

Despite the presence of the water bailiff, who managed the rotational supply system to ensure that all Makahlule households had access to water for several hours each day, approximately three quarters of households had illegal connections to the street level communal reticulation

pipe network. Makahlule village respondents reported that communal stand pipes had become 'open access' resources. They also reported that there are no water point committees in the village, that no one is responsible for maintenance and operation of the water source, and that when faucets break nothing is done. By contrast, homestead taps are better maintained, with controlled access and greater accountability. Although they get water from both legal and illegal homestead connections, mostly yard taps, they have to ask for permission to do so from owners of the infrastructure. Such permission is generally freely given. However, tap owners open and close homestead gates at their own time, which restricts access. Owners also have priority of access to water while other water users have to await their turn in a queue.

The issue of non-compliance in Makahlule was due to frustrations over water deprivation and unmet expectations mainly of migrant worker households, who had invested heavily in medium to high value housing and related water, sanitation and electricity infrastructure. Such frustration, however, had become conflated with longstanding local political power dynamics between Chief Makuleke, the headman of Makahlule village and a neighbouring chief. These dynamics were rooted in the widespread forced removals of the 1960s and early 1970s following the promulgation of various pieces of apartheid legislation.

In 2015, this study found that although Mabiligwe women were still connecting hosepipes to convey water for livestock watering and laundry, they had all stopped irrigating home gardens. The reason was that there had emerged a broad awareness that water was indeed in short supply, particularly due to the drought. By contrast, the patterns of water access in both Makuleke and Makahlule villages remained largely unchanged. Furthermore, both women and men in all three villages generally accepted that they had to use pit latrines, owing to water shortages. However, the fact that many were continuing to invest in both in-house and yard taps toilets suggested that there was still hope for improved access to water and sanitation.

5.7.1. Sub-Catchment Perspectives

Stakeholder engagement initiative around water access issues among rural and urban communities in the catchment area of Luvhuvu River surrounding and downstream of Nandoni dam. The mobilization and organization of this initiative strategically ensured active participation by various locally elected and traditional leaders and interested community based organisations (CBOs), faith based organisations (FBOs), civic society organizations (CSOs) and individual women and men. This initiative basically arose from recognition by concerned members of the communities that their water access woes needed to be seen in conjunction, since they all shared Luvhuvu River and Nandoni dam as bulk water sources. For example, water abstractions from Nandoni dam were piped into Xikundu dam, which in turn provided bulk water supply to Makuleke community further downstream. By engaging with each other across fault lines of ethnicity, identity, power, gender and self-interest, local people were able to get a clearer view of the connected nature of their problem, which was the persistence of their deprivation of water for multiple basic and livelihood requirements owing to poor governance and management of decisions and arrangements for allocating and releasing water in Nandoni dam to traditional

rural communities.

Apart from critical advances in grassroots-led stakeholder engagement around insecure access to water, the significance of this collective initiative was that it took place during a politically tumultuous time, when Tsonga speaking people were violently protesting against being part of the Venda-dominated Thulamela Local Municipality. In a way, the discussions around shared water access issues in the shared sub-catchment of Luvhuvu River helped local women and men and their leadership to rise above divisions inherited from the apartheid era and forge constructive and practical ways of dealing with their collective problems.

5.7.2. Land Tenure, Tenancy and Water Services Delivery from a Gender Perspective

Akin to many traditional rural communities across South Africa, other than those that are undergoing rapid urbanization, there is very little tenancy in Makuleke. Instead, the study found evidence of densification through 'compounding', whereby more stand-alone dwelling structures are added within the homestead as the family grows over successive generations. However, the study also found that local governance institutions had already anticipated population growth, surveyed, sub-divided, developed and availed new residential plots to young married adult males, in particular and, to a lesser extent, older single women with children. The patterns of access to water and sanitation in these new residential sections basically mirrored those of the older sections. However, while the younger households continued to rely heavily on communal water supply infrastructure, they were spending less time conveying water from raw water sources, such as the dam, and increasingly more reliant on informal water vending services. Those young women and men still living with their parents showed similar patterns of behavior. The main restrictive factor for increased levels of reliance on informal water vendors was affordability. Since many of the youth were unemployed, casually employed and/or employed in low wage labour, the majority were compelled to continue spending a lot of time fetching water from communal street taps.

There are two types of tenure systems operating within the Makuleke area. The first is the traditional communal system in which the chief allocates land. The communal tenure system applies to village settlement areas, rain-fed croplands and grazing lands. While land under communal tenure has historically been classified as state land, held in trust by the community through the chief, most of the elderly male and female heads of households have Permission to Occupy (PTO) certificates for their residential plots but some of the newer property owners only hold receipts to show that they paid for their land at the Civic Centre in Malamulele. This has implication for possible future investments in water and sanitation infrastructure.

The second tenure system is the leasehold system in which land allocation is performed by the Provincial Department of Lands and Agriculture, through consultation with the Tribal Authority. This system applies to land in the Makuleke Irrigation Scheme. However, registered irrigation farmers had no formal lease agreements, but only had receipts to show that they paid the initial fee required for membership of the irrigation scheme. In addition to usufruct rights to land in

the Makuleke area most members of the community, who are members of the CPA, collectively own land in the Pafuri Area. Tenure of this land is largely for purposes of conservation and tourism-related business ventures, and funds generated from commercial activities are channeled towards community development in the Makuleke area in Nthlavheni. The constitution of the CPA attempts to ensure that the sharing of these resources is equitable among male and female members of the CPA, in line with a collective vision established in the mid-1990s. While these land tenure arrangements have no direct bearing on access to water and sanitation, they do indicate that, to a large extent, there is gender awareness among community leaders, which needs to be tapped towards addressing water and sanitation access issues in gender-sensitive ways.

5.8. Key Findings

5.8.1. Patterns of Water Use

- The multiple uses of water by Makuleke households cut across the artificial divide of 'domestic' and 'productive'.
- Gender participation in various water conveyance tasks is largely skewed towards greater roles by women than men. However, a more nuanced examination shows that both male and female children of certain age groups, particularly those of primary and lower secondary school going age, share water conveyance tasks with adult female members of households. Older boys have markedly lower water conveyance roles than older girls, while the presence of water collection points of children younger than approximately five years points more to women's multiple reproductive roles than to any involvement by these children in actual conveyance of water. In the relatively few cases where adult men actively convey water, such work is assigned greater value that the labour expended by women. This is not only because the predominantly male informal water vendors incur costs, in terms of fuel, electricity and technology costs, but also due to perceptions that water conveyance for Makuleke men is a source of livelihood while for women it is merely one of various reproductive roles they have performed according to social and cultural constructs.
- Due to the water supply failure, partly as a result of frequent and prolonged breakdown of infrastructure designed for basic levels of domestic water needs, households tend to rely on multiple sources of water for their multiple needs.
- Reliance on sources differs according to location and season, as well as level of affluence or poverty.
- The more affluent households make greater investments in private infrastructure.
- Although the owners of private infrastructure generally allow community members to access to water for domestic needs, they define the rules of access and retain priority of access. In the case of private infrastructure that is linked to public reticulation systems, such as homestead taps, no payment is required for water supply. In instances of unconnected infrastructure, such as boreholes, owners charge fees to cover costs of electricity for running borehole pumps. However, informal water vendors charge generally higher costs of water supply, irrespective of whether the water is potable or untreated

(raw). Their motives are basically to generate incomes while providing water supply services.

- As a result of water shortages in two of the villages namely, Makuleke and Makahlule, potable water is often used for drinking, cooking and food catering while raw water is used for laundry, bathing and irrigating small gardens. By contrast, the abundance of potable water in the third village, Mabiligwe, has blurred the distinction between water sources and uses as households use potable water for all their needs, including Schedule One uses.
- In all three villages, water use patterns vary according to seasonal water availability. Use of surface water sources for small garden irrigation generally gives way to a greater reliance on rainfall for crop farming in the wet season, during which time surface water sources become relegated to safety nets for dry spells. However, there are virtually no investments in rainwater harvesting infrastructure for both domestic and productive purposes, except in a few cases involving old retail shops whose construction predates the upgrading of state-funded piped water supply in the mid-1990s.
- Potable water sources include state-funded infrastructure as well as formal and informal private investments in hydraulic infrastructure. The latter are distinctly classified as 'legal' and 'illegal' connections, but there is a general view that the so-called illegal connections are legitimate in the two villages with low levels of assurance of supply.
- The wet and dry season average daily use of water by these riverside gardeners seems to be well within limits of Schedule One. However, taken within the context of the burgeoning of riverside gardens along rivers in Makuleke and possible increases in water use by existing and potential gardeners, there is a possibility that riverside gardening can collectively exceed Schedule One limits, thus placing it in the realm of uses requiring General Authorisation. Notwithstanding the fact that there is currently no provision for General Authorisation in the Olifants River basin, it remains to be seen whether water use quantities by individual riverside gardeners will exceed the General Authorisation threshold for the registration requirement that applies to less stressed and under-subscribed catchments.

5.8.2. Non-compliance with established rules of access

Non-compliance scenarios, such as exemplified by the foregoing village level case studies, indicate:

- An appropriation of state-sponsored communal hydraulic infrastructure by historically disadvantaged individuals. Through informal investments in homestead taps, hosepipes, stock watering tanks, drip irrigation kits and irrigation furrows for homestead gardens, many households have created *de facto* hydraulic property rights for themselves. In many cases, this form of non-compliance is directly linked to exclusions of food plot holders from the irrigation scheme, which is associated with the emergence of a strategic partnership that began in 2007.
- Although formal institutions at village and community level generally do not sanction informal investments such as 'illegal' homestead taps, the common view among community members is that these investments are legitimate since formal institutions

have not delivered expected water services.

- The growth of informal investments in hydraulic property rights creation has been accompanied an emergence of informal water service providers, such as vendors and plumbers. Activities of these providers are generally accepted as legitimate in that they fill a gap in formal service provision while generating self-employment and livelihoods for themselves. On the whole, however, there are voiced needs for improvements in formal service delivery.
- The significance of failure by state-sponsored reticulation systems to supply water to homesteads is best seen in relational terms. For example, the cost of legally connecting a homestead tap was R120 in 2007. Mean monthly incomes of most (78%) of the households in the community were below R1500, and one tenth (10%) of the total household population earned below R500 per month. Supply failure by legally-connected homestead taps therefore represents losses of at least a quarter (24%) of one month's income for households earning up to R500 and almost one tenth (8%) for those earning R1500. Such losses are significant for a community with a prevalence of low-incomes and high levels of poverty and unemployment.
- Statements such as, "I am within my rights…" show that some members of Makuleke community are aware of their rights to water for basic human needs and the legal provisions for access to Schedule One water use. They have therefore resisted local rules about rationing the use of limited water supplies and proceeded to invest in hydraulic infrastructure outside of state institutions.

5.9. Key Conclusions

The socio-economic profile of the observed residential areas could no longer be simply categorised as 'low- and middle-income' neighbourhoods, since there was a greater diversity economic participation and wealth ranking of property owners/landlords and tenants. Some of the property owners and tenants were actually high income earners, who either resided elsewhere or had permanent homes outside the low and middle areas in question. In the case of Chatsworth, some of the absentee landlords transferred benefits of free basic water, which the municipality had intended for residents of informal settlements, from their informal settlement properties to their homes in more affluent neighbourhoods elsewhere. Such livelihood strategies highlighted the need for governance institutions, namely the state, civil society and private sector, to engage with citizens at the onset with the objectives to clarify the purpose of water and sanitation interventions and to put in place accountability and enforcement mechanisms for ensuring the beneficiation of bona fide indigent or low-income users.

Similarly, the gender dynamics of the unfolding transitions could no longer be taken for granted in water and sanitation interventions. The growth of women landlords perhaps constitutes an opportunity for empowerment of this gender group in not only helping to meet the tenant housing demand, but also to become actively involved in investments to

ensure secure, gender-sensitive and livelihoods-cognisant access to water and sanitation services at the plot and community levels. The emergence of private investments in infrastructure, such as boreholes, in-house taps and waterborne toilets in water scarce low- and middle-income urban and rural residential areas suggests that, within a requisite set of parameters, access to funding can enable landlords to invest in infrastructure for secure access to water by burgeoning populations of tenants.

CHAPTER 6: APPROPRIATE WATER AND SANITATION SERVICE MODELS FOR DIFFERENT TENURE AND TENANCY PROFILES

6.1. Synthesis of Delivery Options for Selected 'Group' Tenure and Tenancy Contexts

Planners conceptualize appropriateness from supply-side perspectives of factors such as location (e.g. 'density' and 'serviceability'), design cost (e.g. affordability, infrastructure, capacity), availability of land and water (natural resource mobilization capacity) and management (e.g. taxation or 'value-capture', 'development planning' and 'institutional capacity') (Figure 1). However, from the bottom-up demand-side, appropriateness is often seen in terms of various factors, such as quality, affordability and reliability of access to water and sanitation services, gendered livelihood risks and vulnerability to effects of sub-optimal services, perceived relative deprivation and unmet expectations for redress and realization of human rights. The top-down and bottom-up perspectives are not necessarily incongruent, but there is evidence of mismatches between conventional planning approaches and expectations of water users, particularly those historically deprived 'property' owners and tenants users living in rural and urban residential settings, which may or may not be prone to social protests. Thus, the search for a set of service delivery models that optimally and comprehensively satisfies the various stakeholder interests does elicit a critical methodological challenge.

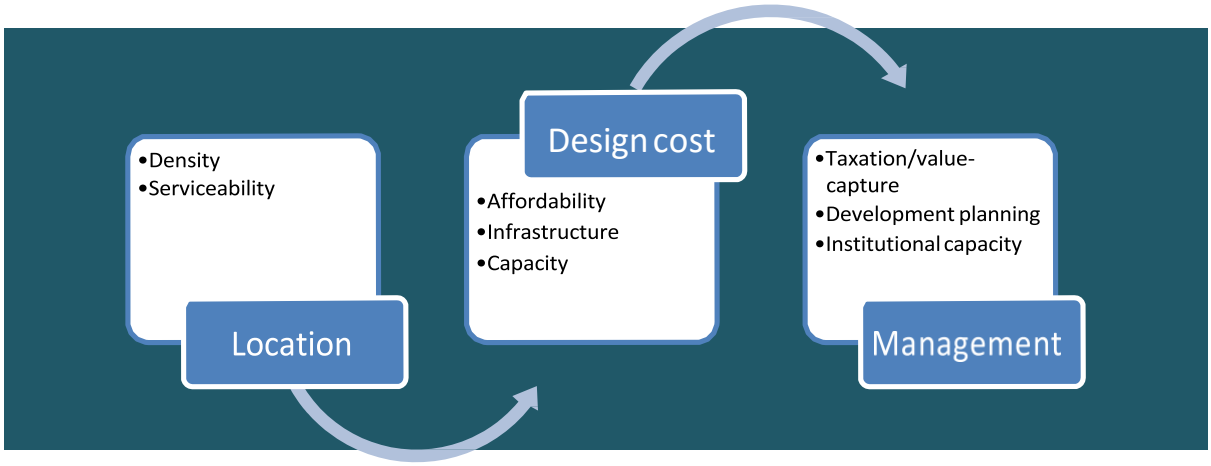

Figure 2. Conventional Conceptual Framework for Determining 'Appropriateness' of Service Delivery Models

What seems requisite is a broader array of robust delivery options, which go beyond the conventions and confines of traditional apartheid era planning to take into account the multiple dimensions of 'property' and effectively utilize finely coordinated 'social' investments in housing and associated water, sanitation, electricity, refuse removal and other services. This chapter presents some of the possible options to be considered.

6.1.1. Formal Residential Areas: Uncoupling Incremental Investments in Tenant Social Housing and Water Services Infrastructure

Observations suggest that there have been challenges to state-led provision of home ownership and tenant housing to significant proportions of low and middle women and men, particularly HDIs. Post-1994 RDP housing has built upon historical state-driven social housing development approaches. These approaches commonly vest upon the state the responsibility to deliver a complete or near complete dwelling unit as well as associated water, sanitation and other social services. Given the magnitude of the fiscal burden that this entails for government, amid serious capacity constraints, it is not feasible that continuance in this current trajectory will eradicate the housing backlog and frontlog within the foreseeable future. By contrast, it has been pointed out that people build themselves shelter anyway even if government does not provide them with housing. They effectively exercise their own agency and help themselves. Hence, rather than governments maintaining intractable scenarios, whereby authorities keep people on hold while state-led housing delivery trickles down against the tide of rapidly growing demand, incremental housing approaches have been gaining ground. These enable low- and middle-income women and men to proceed with securing their own property in ways and rates they can best afford. There are plausible opportunities for enhancing quality of access to water and sanitation services for property owners and tenants in the incremental housing approach, which take into account the concerns around what investments in infrastructure upgrades might mean for affordability of services for socially differentiated groups of tenants and for individual property owners.

This study's investigation shows that many tenants in low- and middle-income formal residential areas access water and sanitation services from shared yard and/or street level infrastructure. While some home-owning households retain exclusive access to in-house water and sanitation services infrastructure and relegate their tenants to yard and/or street level infrastructure, many others tend to share yard level infrastructure with their tenants. Findings that there is widespread dissatisfaction among tenants and resident property owners with the more basic levels of access to services, and that the first choice for the majority of these groups is in-house infrastructure, suggest that the thrust of options in selfhelp incremental housing contexts should aim at the latter. However, while in-house infrastructure is more ideal it is also costlier. The modalities for making investments in such infrastructure necessarily have to be explored on a case by case basis within at least three units of analysis, namely individual plot, neighbourhood and municipality. Based on primary research findings, this study has developed a stratified framework for exploring possible options.

South Africa has mobilized extensive resources to meet its service delivery targets. These are primarily through government capital grants, to provide new infrastructure, and operating grants, to support the ongoing provision of services to poor households and the government's Free Basic Water policy. Government grant allocations to water supply and sanitation have increased significantly in real terms over the period. The use of grants from donors and external loans is insignificant in the context of the overall scale of government investment

and local mobilization of resources. Anticipated investments are significant but are not sufficient to achieve universal access within the planned timeframe. This is partly due to the high cost of providing bulk water services (through regional schemes) to the remaining remote rural households and the high cost of urban sanitation (provision of waterborne systems is the accepted standard in cities and towns). The existing cost model does not cater adequately for the regional bulk infrastructure required for rural water supply schemes in areas where groundwater resources are deemed to be inadequate or unreliable.

The emergence of private investments in-house and yard infrastructure (including boreholes) outside the ambit of state interventions in many localities suggests that, within requisite sets of parameters, access to financial, technical and governance support can enable property owners/landlords to invest in infrastructure to enhance security of access to water by their own households and/or burgeoning populations of tenants.

6.1.2. A Stratified Approach to Tenant Social Housing and Infrastructure

This approach begins by taking cognizance of the prevailing land tenure, tenancy and water services delivery situation in a given unit of analysis, such as an individual residential plot, neighbourhood or municipality. Key attributes to note are:

- Characteristics of existing investments in housing and water and sanitation services infrastructure, in terms of factors such as quality, size and registration of tenant dwelling unit(s); and
- Rental categories and price structures for available tenant housing, with determination made regarding whether or not payments for water and sanitation services are included or excluded within monthly rentals.

Once clear understandings of situational context have been developed, the next step would be to determine the 'appropriate' options, using a Comprehensive Options Analysis (COA) approach that takes into account relevant key stakeholder perspectives, including property owners, landlords and tenants. Decision rules would first need to be established and adopted regarding:

- Criteria for qualification (or lack thereof) of property owners/landlords and tenant for the different types and levels of subsidies;
- Degrees of freedom for property owners/landlords, municipal water services authorities (WSAs), housing agencies and relevant institutional stakeholders to determine the most suitable service delivery option, particularly with respect to tenant housing situated on private property or municipal rental housing plots;
- Regulatory frameworks for basic conditions within lease agreements and rental levels specifically for subsidized tenant housing, and payment arrangements for water and sanitation services infrastructure specifically developed using subsidies or soft loans.

6.1.3. Owner and subsidy led options

Owner-led Mix of Investments for Owner-Occupiers and Tenants

Option 1.1: Property Owner/Landlord takes 100% responsibility for making the necessary incremental upgrades to all **owner-occupied and tenant** housing on his/her plot, and all (100%) costs of developing in-house water and sanitation services infrastructure for **tenants** on his plot;

Option 1.2: Property owner/landlord takes 100% responsibility for making the necessary incremental upgrades to all **owner-occupied and tenant** housing on his/her plot, but assumes responsibility for most (75%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her plot, while municipality subsidizes the remainder (25%) of the cost;

Option 1.3: Property owner/landlord takes 100% responsibility for making the necessary incremental upgrades to all **owner-occupied and tenant** housing on his/her plot, but equally (50%) shares with municipality the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her plot;

Option 1.4: Property owner/landlord takes 100% responsibility for making the necessary incremental upgrades to all **owner-occupied and tenant housing** on his/her plot, but assumes responsibility for a quarter (25%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her plot, while municipality subsidizes the remainder (75%) of the cost; and

Option 1.5: Property owner/landlord takes 100% responsibility for making the necessary incremental upgrades to all **owner-occupied and tenant** housing on his/her plot, but assumes no (0%) responsibility for the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her arrangements for water and sanitation services infrastructure specifically developed using subsidies or soft loans.

Owner-led Focused Investments for Tenants

Option 2.1: Property Owner/Landlord takes 100% responsibility for making the necessary incremental upgrades to all **tenant** housing on his/her plot, and all (100%) costs of developing in-house water and sanitation services infrastructure for **tenants** on his plot;

Option 2.2: Property owner/landlord takes 100% responsibility for making the necessary incremental upgrades to **tenant** housing on his/her plot, but assumes responsibility for most (75%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her plot, while municipality subsidizes the remainder (25%) of the cost;

Option 2.3: Property owner/landlord takes 100% responsibility for making the necessary

incremental upgrades to all **tenant** housing on his/her plot, but equally (50%) shares with municipality the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her plot;

Option 2.4: Property owner/landlord takes 100% responsibility for making the necessary incremental upgrades to all **tenant housing** on his/her plot, but assumes responsibility for a quarter (25%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her plot, while municipality subsidizes the remainder (75%) of the cost;

Option 2.5: Property owner/landlord takes 100% responsibility for making the necessary incremental upgrades to all **tenant** housing on his/her plot, but assumes no (0%) responsibility for the cost of developing in-house water and sanitation services infrastructure for **tenants** on his/her plot, while municipality assumes responsibility for the whole (100%) of this cost;

Subsidy-led Mix of Investments for Owner-Occupiers and Tenants

Option 3.1: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to existing **owner-occupied and tenant** housing on the residential plot, and water services authority (WSA, i.e. municipality) assumes responsibility for all (100%) costs of developing in-house water and sanitation services infrastructure for **tenants** on the plot;

Option 3.2: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to existing **owner-occupied and tenant** housing on residential plot, and municipal WSA assumes responsibility for most (75%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot, while the property owner/landlord subsidizes the remainder (25%) of the cost;

Option 3.3: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to existing **owner-occupied and tenant** housing on residential plot, but municipal WSA equally (50%) shares with the property owner/landlord the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot;

Option 3.4: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to all **owner-occupied and tenant housing** on the residential plot, but municipal WSA assumes responsibility for a quarter (25%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot, while the property owner/landlord subsidizes the remainder (75%) of the cost; and

Option 3.5: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to all existing **owner-occupied and tenant housing** on the residential plot, but municipal WSA assumes no (0%) responsibility for the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot, while the property owner/landlord

assumes responsibility for the whole (100%) of this cost.

Subsidy-led Focused Investments for Tenants

Option 4.1: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to existing **tenant** housing on the residential plot, and water services authority (WSA, i.e.municipality) assume responsibility for all (100%) costs of developing in-house water and sanitation services infrastructure for **tenants** on the plot;

Option 4.2: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to existing **tenant** housing on residential plot, and municipal WSA assumes responsibility for most (75%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot, while the property owner/landlord subsidizes the remainder (25%) of the cost;

Option 4.3: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to existing **tenant** housing on residential plot, but municipal WSA equally (50%) shares with the property owner/landlord the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot;

Option 4.4: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to all **tenant housing** on the residential plot, but municipal WSA assumes responsibility for a quarter (25%) of the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot, while the property owner/landlord subsidizes the remainder (75%) of the cost; and

Option 4.5: Housing subsidy takes 100% responsibility for making the necessary incremental upgrades to all existing **tenant** housing on the residential plot, but municipal WSA assumes no (0%) responsibility for the cost of developing in-house water and sanitation services infrastructure for **tenants** on the plot, while the property owner/landlord assumes responsibility for the whole (100%) of this cost.

6.2. Informal Settlements: Upgrading Communal Water Services Infrastructure

In the case of informal settlements, selfhelp incremental housing already exists, often outside the ambit of formal registration. However, options such as outlined in chapter 3.1 are only possible where land tenure rights can be made available. Otherwise, appropriate options in these settings may need to focus on developing ways to enhance existing approaches to delivering basic water and sanitation services. In particular, the focus of options will need to recognize, among other things, the finding that perceptions about 'ownership' (or lack thereof) of communally-shared water services infrastructure and facilities contribute significantly to levels of satisfaction or dissatisfaction and feelings of security, dignity, self-worth and well-being

for those women and men who are daily compelled to cope with the lived reality of vulnerability and risks associated with use of such infrastructure, facilities and services.

'Ownership', in this case, refers not to the ultimate and exclusive legal right to enjoy, occupy, possess, rent, transfer and subdivide property but rather to the sense of possession and, thereby, the assumption of stewardship and control over shared water and sanitation infrastructure. Such stewardship and control emerge through deliberate de facto and de jure efforts to upgrade the ownership of state-funded infrastructure, which is commonly considered to be public property and therefore often utilised as open access (i.e. non-property) resources, from public to common property. Through various hydraulic property rights creation processes, well-defined groups of local residents can assume degrees of control and stewardship over communal standpipes and toilets located within public spaces in urban informal settlements. However, they need institutional support as well as clear terms of reference (TOR) for the handing over of such infrastructure.

CHAPTER 7: SYNTHESIS OF FINDINGS AND RECOMMENDATIONS TOWARDS A PRACTICAL FRAMEWORK FOR DEALING WITH CHALLENGES PRESENTED BY LAND TENURE AND TENANCY IN WATER AND SANITATION SERVICE DELIVERY FOR THE POOR IN LOW- AND MIDDLE-INCOME URBAN AND RURAL RESIDENTIAL AREAS

7.1. Introduction

The case studies of the project highlighted analytical and policy dimensions of the mix of urban and rural land tenure and tenancy arrangements that fall within and outside the ambit of the formal registry system. It was shown that these patterns are very diverse. Each mix differs according to context. Patterns of access to water and sanitation services within the mix of formal and informal tenure and tenancy arrangements are similarly complex and influenced by multiple relationships between municipalities and home-owners, landlords and tenants, and in some cases, municipalities and traditional leadership. Recommendations towards a practical framework for dealing with these challenges require cognizance of this complexity and diversity, particularly in relation to stakeholder relations, as case study research in City of Cape Town (CoCT), Johannesburg and eThekwini made clear. A practical framework must take into account the different levels of engagement and stakeholder involvement as well as the diverse relationships between stakeholders in the case study areas examined. Due to the case study driven nature of these findings and recommendations, the validity of recommendations towards a practical framework is high in relation to the areas covered.

7.2. Key Analytical Framings

This study was premised upon the view that any useful analysis of the post-apartheid water and sanitation services delivery challenge necessarily has to move beyond the singular lens on social protest to include a more complex overlay of lenses that include focusing on the micro-level of the plot within urban and rural low- and middle-income residential areas. As key analytical concepts land tenure and tenancy help to transcend the singularity of the social protest lens.

7.2.1. Context to the Study

The focus on grievances and obstacles to effective urban and rural water service delivery takes against the background of global insecurity of millions of people living in poverty in the developing world who lack security of tenure or property rights. The United Nations (UN) predicts this figure to reach 1.5 billion by 2020. The problem is most acute in urban areas where the cost of legal access to land hand housing is rising at a far higher rate than incomes. Beyond the effects of this trend on the poor in a worldwide context of rapid urbanization, governments are at risk of losing control of over the urban environment and the affluent are feeling increasingly surrounded by illegal slums and settlers. Compounding these problems in South Africa is the hyper-urbanisation that took place since 1994. This is largely influenced by South Africa's history of racially biased resource allocation. In the intervening years the

binaries or racial resource allocation have gradually morphed into a more complex mix of planned/invited/formal spaces that jostle cheek-by-jowl with organic/invented/informal spaces. In this milieu, development planning paradigms come face-to-face with the realities of the unleashed complexities of livelihoods of citizens and immigrants who straddle the formal and informal economies. Within these complex contexts, the relationship between land tenure, tenancy and water/sanitation services delivery also differs between urban and agrarian contexts because of differences in the social construction and function of these spaces.

The net effect of Apartheid development planning has been an increase in backlogs of historically disadvantaged individuals (for this study, HDIs) trapped on waiting lists or databases and/or dependent on informal rental and tenure markets (although for some informality is a choice rather than an entrapment). Between 2001 and 2011, formal dwellings increased from 68% to 78% and informal dwellings decreased only slightly from 16% to 14%. These figures mask the prevalence towards informality in urban areas due to rapid urbanization. The metros that were found to have the greatest number of back yard shacks were Johannesburg, Ekurhuleni and Tshwane, with Cape Town showing an increase in both backyard and free-standing shacks. While metros show the greatest increase in informality of tenure, preliminary findings show this urbanization trend is spreading to non-metropolitan cities and towns and smaller towns across South Africa. This has been accompanied by de-agrarianisation in many rural areas.

Against this backdrop of rapid urbanization, critical leverage for "moving up the ladder" include access to housing, informal settlement upgrades, tenure security, formalization of tenancy and other mechanisms. The findings of this study show that for residents living in informal tenure and tenancy, the option of infrastructure upgrade as part of an incremental approach to housing delivery rather than the delivery of a finished product or house, could be seen as a 'bottom rung' of the tenure security ladder. Given fiscal limitations, the incremental approach ensures a wider spread of financial resources to the benefit of a greater number of shelter deprived households. There also seem to be more plausible opportunities to link housing upgrades with the water and sanitation sector's incremental approach to ensuring the progressive realization of the human rights of secure access to water and sanitation services.

While there seems a valid case for considering upgrade options for households living with insecure access to services, particularly those in informal tenure and tenancy settings, however the case studies highlight the complexity of these forms of tenure, which show diversity intrinsic to each case study setting. Increases in informal tenancy in both formal and informal setting have been less visible and policy options for improved security of access to water and sanitation services even less clearly understood. This is because the livelihoods of many of these residents involve mobility, often straddling the divides or rural-urban areas, formal-informal economies as well as administrative and political boundaries. Tenants living in rural settings seem to be even less visible than those found in urban areas.

Against this background, the project has sought to identify key questions that will help to develop policy tools to enable key stakeholders to deal with water and sanitation service delivery challenges emerging from the scenario of rapid urbanization and de-agrarianisation of the post 1994 South African socio-economic landscape. These tools may help to address the challenges presented by differing formal and informal land tenure and tenancy arrangements.

7.3. Key Findings

7.3.1. Synopsis of Key Analytical Findings Social Water Scarcity

The findings presented in sections four, five and six of this study show the importance of the use of analytical lens of social water scarcity. The concept highlights the diversity of access of the urban and rural poor. Social water scarcity refers to the social construct of resource management which is determined by political, economic, and social power dynamics underpinning institutions that provide social relations, security of access to bases of social power and productive wealth, and stability to the social organization of human societies (Tapela, 2013).

The case studies highlight the diversity of informal settlements, dwellings and the relationships within them. This study highlights that informal settlements are characterized by institutional neglect. The unplanned nature of informal settlements presents serious challenges in terms of service delivery and puts pressure on municipal finances through urban sprawl and the consequent impact on infrastructure development, operations and maintenance. Failure to plan for changing rural-urban demographic trends has been at the heart of the development of informal settlements, informal dwellings and relatedly, the pressure on basic services. Social-water scarcity as a concept illustrates there is skewed distribution of services and the historical context of this.

The findings of the study further highlight that informal settlements are characterized by a lack of tenure, public spaces and public facilities, inadequate access to municipal services, a lack of convenient and safe access to services and non-compliance with planning and building regulations. The institutional and governance issues are compounded by the analytical/ideological bias in policy analysis towards Cities without Slums, rather than the Rights to the City approach. Cities without Slums is an ideologically imbued policy debate, but, for example, found concrete application in the City of e T hekwini's Slum Eradication Policy, which encountered widespread social protest from civil society organization such as Abahlahli BaseMondjolo and informal dwellers in Kennedy road (Tapela et al., 2012). "Rights to the City" by contrast, highlights that in-migration to cities is motivated less by pull factors than by push factors, including labor shedding, caused by wage and land rights legislation for farm-workers, consolidation of farms caused by globalization-induced economic hardships experienced by farmers, drought, and conversion of crop and livestock farms to game farms.

The Apartheid overtones of this debate and related policy embarrassment around slums

requires further attention in order to grapple with the political content of the hydro-social contract. In this way, policy recommendations may make for more effective tenure and tenancy governance practices that take note of the social legitimacy of extra-legal tenure and tenancy regimes.

7.4. The Hydro-Social Contract

While local government generally claims to be addressing the backlogs and frontlogs to ensuring better land tenure, tenancy and water and sanitation, such pronouncements need to be viewed through the analytical lens of the hydro-social contract. Three tenets of this contract that have been added to the depoliticized version of this term is that the contract is politicized, it is not equal or value free, and it is constructed through the socio-ecological fabric of space, through time.

The politicised nature of the hydro-social contract in South Africa has led to socio-economic distortions. These are reinforced by global structural inequalities. Thus the dual economy policy lens fails to take cognizance of the fact that the vast majority of rural dwellers are not so much excluded as included on *highly adverse terms* (Cousins, 2003, emphasis added). Du Toit (2005) adds to this perspective by highlighting that the problem is more often not that the poor are excluded from particular institutions, resources or larger processes, but that they have been included on inequitable or invidious terms. The case study evidence underlines this perspective. The institutional arrangements and frameworks governed by governance practices depoliticize the contract and so fail to sufficiently address structural distortions.

The case studies underline the importance of an approach which takes cognisance of the importance of the *progressive realisation of rights* for both the urban and rural poor, in addressing tenure, tenancy and water and sanitation challenges. The policy dimensions of the progressive realization of rights are discussed below.

7.4.1. Key Policy Findings and Recommendations

One of the key shortfalls of policy related to tenure, tenancy and water and sanitation for the poor relates to the lack of planning for changing demographic trends. Planning in this regard needs to take particular note of the Rights to the City approach, as the failure to plan has led to burgeoning informal settlements and dwellings. Policy embarrassment over slums leads to neglect in governance practices and blind spots in water and sanitation delivery.

The institutional arrangements and frameworks governed by governance practices depoliticize the hydro-social contract and so fail to sufficiently address structural distortions. In order to address these distortions in policy terms, institutional arrangements need to take cognizance of existing social practices including extra-legal property regimes and their importance for securing livelihoods.

At all levels of policy development on tenure, tenancy and water and sanitation delivery there needs to be an emphasis on both public and private investment in infrastructure to counteract the current institutional inertia with regard to informal settlements.

An incremental approach to tenure and service delivery will assist in providing security that can lead to private investment by the diverse range of informal settlement land occupiers.

In certain tenancy situations, landlords could also be incentivized to invest for better service delivery to tenants (as underlined by the findings of the Tshikota and Chatsworth case studies).

Urban Development Planning Policy initiatives could conceivably examine how to review the cadastral system, with its bias towards formal land tenure, to be more inclusive of socially embedded extra-legal tenure and tenancy arrangements. The Formal Registry System is also overburdened and needs revision in the light of these findings.

The BNG Policy shifts need to be enforced more in governance practices as opposed to policy (see Figure 2.1. in Section 2, pg. 39 of this study). The BNG approach is linked to the policy analytical approach that stresses tenure is linked to easy access to services and that insecure tenure, or lack of title, severely circumscribes the ability to access services. The plan also focused on minimum standards for housing and further on Informal Settlement Upgrading to meet the Millennium goals of the UN to improve the lives of slum dwellers.

This study has shown through both the analyses of the case study material that Ownership and Use Rights Model that govern South African Tenure and Tenancy requires revision. Van der Walt (1999) suggests 'use-rights oriented model' that will potentially break down the hegemony of the ownership oriented system'. Pienaar (2005) maintains that 'state support to user-rights may ensure that they are given proprietary content and receive the same protection as ownership rights'.

The case study research also illustrates that a policy move away from communal amenities in both urban and rural areas is necessary in terms of security of use for a range of users, but also in terms of the financial gains that will be possible from ensuring payment from those who can afford to pay for water and sanitation services in the diverse range of informal settlement land occupiers.

This study has demonstrated that in policy terms there is insufficient attention paid to the diversity of tenure and tenancy social arrangements that characterize informal settlements and those who occupy a range of informal dwellings therein. Those with income that are prepared to pay for services provided they have security of tenure or tenancy, require recognition in policy design and implementation practices.

The case studies underlined that security of tenure defined as not facing eviction, is more important than title. The tenure and tenancy policy setting requires revision in terms of how state policies support a broader notion of security and a more diverse and pro-poor definition of tenure security.

Additionally, guidelines for minimum standards for the progressive realization of access rights to water and sanitation under varying tenure and tenancy arrangements need to be made explicit. Table 1 and 2 below provide a summary of the main analytical and practical policy related recommendations pertaining to the study.

7.5. Table 1: Analytical Recommendations Towards a Practical Framework: Land Tenure and Tenancy

Key Finding	Social Context	Recommendation
Social Water Scarcity is important to understanding the diversity of access to water and sanitation resulting from tenure and tenancy	It is determined by political, economic, and social power dynamics underpinning institutions that provide social relations, security of access to bases of social power and productive wealth.	Political and historical dimensions of social water scarcity must be factored into development and policy – policy is impossible to de-sanitise; Push factors have created urban slums, together with the Apartheid legacy. Apartheid spatial planning requires ongoing policy counter-measure, including an ideological acceptance of the rights to the city of the urban poor; Policy framings have to take into account the unequal nature of the delivery of services, depoliticized framings of the hydro-social contract fail to address socio-economic distortions; Relatedly, policy needs to be conceptually grounded in the recognition of the fact that the poor are included into urban planning policy dynamics on unequal terms. Governance practices need to be the focus of attention in terms of eradicating these long term structural and spatial biases that are historically entrenched.
The concept of **insecurity of tenure,** revolves around fear of eviction, rather than insecurity around title;	Urbanisation and the burgeoning of informal settlements in both urban and rural areas has led to a huge diversity of tenure and tenancy arrangements, many are extra-legal but socially embedded.	
Progressive realisation of rights leads to immediate security.	The diversity of tenure and tenancy arrangements highlighted in the case studies show the importance of recognizing extra-legal forms of tenure and tenancy.	

7.6. Table 2: Recommendations Towards a Practical Framework

Key Finding	Policy Context	Recommendation
Technicist orientation of policy causes neglect of informal settlements, compounded by embarrassment over slums	Despite policies like BNG, there is institutional inertia towards addressing service delivery issues that arise through the rise of informal settlements.	Policy acceptance of the political nature of spatial distortions with regard to housing and tenure and water and services delivery Enforce an incremental approach to water and sanitation service upgrades by recognition of different forms of tenure Relatedly, encouraging public and private investment in infrastructure development and service provision
Incremental approach to tenure and service delivery will more quickly ensure security.	Rights to the City approach rather than Cities without Slums.	Providing incentives for private investment, commercial and landlords to invest to upgrade services and to provide security of access. This will impact positively on gendered dimensions of water and sanitation insecurities Review of how to reform the cadastral system to make provision for socially embedded forms of land tenure
Findings endorse BNG approach: tenure is linked to easy access to services and insecure tenure severely circumscribes the ability to access services.	Policy planning attention needed to embrace the diversity of socially embedded forms of tenure and tenancy, including extra-legal forms.	Relatedly, encourage a use-rights model that can break down the hegemony of the ownership orientated model Encourage a policy move away from communal access to policy compliant but generally poor communal water and sanitation services Formulation of minimum standards guidelines for progressive/incremental realization of rights to access in a diversity of tenure and tenancy arrangements.

APPENDIX 1

1. DETAILED METHODOLOGY (PG 16-18 OF DELIVERABLE 1)

The axes of enquiry frame this study's research methodology. These include Literature Review, Empirical Research and Participatory Action Research. This report primarily presents a review of pertinent literature. Subsequent reports will combine all three methods of data collection.

The rationale for Participatory Action Research, in particular, is based on a view that, since informal urban economies are co-produced by state and non-state regulatory systems, it is reasonable to suggest therefore that effective strategies to deal with challenges of land tenure and tenancy will require a reconciliation of the roles of governance institutions (GI), namely the state, markets and civil society, with expectations of social 'systems-to-be-governed', which includes South African society at large. Part of the action research component of the proposed study will be to work with locally-based NGOs and established multi-stakeholder governance initiatives. Alternatively, project-specific platforms for stakeholder engagement and interdisciplinary focus groups will be used to explore and develop options for dealing with challenges of land tenure and tenancy for urban water and sanitation services.

Preliminary preparation for fieldwork and action research will include using literature review findings to develop criteria for case study site selection primarily in low- and middle-income urban and rural residential areas. Furthermore, consultations will be held with identified stakeholders to introduce the research project, develop common understandings of the research problem and requisite research procedure, and to identify and select possible case studies.

Operationalization of research objectives will proceed as follows:

a) Characterization of tenure and tenancy arrangements:

i. Survey of the land registry system
ii. Literature Review
iii. Cross-referencing: Interviews with key resource persons

b) Mapping and profiling of patterns of access to water and sanitation services by tenure and tenancy:

i. Survey of municipal water and sanitation databases and land registry system
ii. GIS mapping: analysis/construction of formal tenure and tenancy records
iii. 'Google' maps and community-led surveys to groundtruth and produce accurate maps and profiles of informal settlements and informal tenancy. These maps will show the location of existing of water and sanitation infrastructure relative to individual plots and boundaries. The maps and profiles will serve as informal proof of residence. They will be used to adjust formal data maps and explore possible options for water and sanitation development in informal tenure and tenancy settings.

Where possible, mapping and profiling will be cross-referenced with results of a protest event catalogue and GIS mapping of social protest events associated with water service delivery (see Tapela et al., 2015).

c) Research on linkages between tenure security, tenancy and investment in water and sanitation services:

i. Literature review
ii. Interviews with institutional actors within municipalities, NGOs, CSOs, CBOs, private sector, universities, research institutes and other organizations.
iii. In-depth interviews with male and female owner-occupiers, landlords and tenants at the plot level.
iv. Adapted Echelons of Rights Analysis (ERA) approach: To determine the four (4) 'domains of water control' at plot and community level namely, i) Access to actual volumes of water, ii) Rules, rights and norms, iii) Decision-making authority and processes and iv) Discourses and narratives framing of water problems (Narrative and Discourse analysis, including crisis narratives and repertoires).

d) Gender and livelihood issues associated with challenges of access to water and sanitation services in the mix of tenure and tenancy arrangements:

i. Literature review
ii. Sustainable Livelihoods Framework (SLF) and ethnographic research methods: To characterize gendered livelihoods in diverse formal and informal tenure and tenancy settings.

e) Appropriate water and sanitation service models for different tenure and tenancy profiles:

i. Literature review of past experiences in contexts within South Africa and elsewhere
ii. Action research through stakeholder engagement and policy engagement

f) Possible options for reinforcing the strategic capacity of the municipality and service providers:

i. Literature review of past experiences in contexts within South Africa and elsewhere
ii. Action research through stakeholder engagement and policy engagement

g) Options for incentivising investments by landlords in water and sanitation services:

i. Literature review of past experiences in contexts within South Africa and elsewhere
ii. Action research through stakeholder engagement and policy engagement

h) Recommendations towards a practical framework for dealing with challenges presented by 'land tenure' and 'tenancy' to water and sanitation service delivery for the urban poor in low- and middle-income residential areas of South Africa.

Findings from the above research will be synthesized into a final report.

Although the methodological approach outlined above is envisaged to address the aim of the study, this study recognizes the limitations of using 'registers' as sources of data for developing both clear understandings of the relationship between land tenure, tenancy and water and sanitation services delivery as well as tools towards enhancing secure access to these services. As Scott (1998) observes, registers exemplify the way the state often deals with complexity (see Box 1), which is by simplifying and affixing people to definable land spaces and portions of land, and thereby provisioning them with services. This becomes problematic when people's gendered livelihood strategies necessitate straddling and mobility, since state interventions might continue to miss the moving targets.

Box 1 'Seeing like a State': Dangers of Dismembering an Exceptionally Complex and Poorly understood Set of Relations and Processes to Elicit Instrumental Value

"Certain forms of knowledge require a narrowing of vision. The great advantage of such tunnel vision is that it brings into sharp focus certain limited aspects of an otherwise far more complex and unwieldly reality. This very simplification, in turn, makes the phenomenon at the centre of the field of vision more legible and hence more susceptible to careful measurement and calculation. Combined with similar observations, an overall, aggregate, synoptic view of a selective reality is achieved, making possible a high degree of schematic knowledge, control, and manipulation…. The modern state applies a similar lens to urban planning, rural settlement, land administration, and agriculture." Source: Scott, 1998.

2. APARTHEID LEGACY AND THE URBAN CHALLENGE: FRAMING THE DISCOURSE: DEBATES AND NARRATIVES (PP33-39 OF DELIVERABLE 1).

There is a broad consensus that the present relationship between state, citizenship and space is product of apartheid socio-political control exercised through state-driven policies of racial discrimination of, firmly cemented in the South African urban form (Robinson 1997 in Huchzermeyer, 2003). However, perspectives about the urban challenge vary.

As Mammon et al. (2008) states, many South African cities experience "a physical landscape that monumentalises separation over inclusion, in which public space fails to perform its democratic potential as a place of exchange, tolerance and healing". Although the post-apartheid dispensation has removed the racially-based laws, which prohibited black South Africans from registering ownership rights and subject them to arbitrary removal and relocation, many people still face tenure insecurity (Royston, 2002). The apartheid legacy is compounded by severe material, economic constraints, which continue to limit the access of South Africa's poor to the benefits of urban life (Ibid.).

Firstly, there has been the 'compact' city discourse, which draws insights partly from compact city thinking in developed countries, which holds that compaction of urban land spaces (as

opposed to urban sprawl) generates benefits in terms of reduced infrastructure costs, efficient service provision, transport costs and energy usage, among others (e.g. Irurah & Boshoff, 2003). The discourse also takes cognizance of the South African historical experience, particularly the way apartheid policies to compact the city contributed to the impoverishment of spatially marginalized black populations (Dewar 1984 in Todes, 2003). Counter-poised to the 'compact' city discourse has been a debate about the 'fragmented' city. Secondly, a number of scholars (e.g. Harrison, 2003; Smith, 2003; Bond, 2003; Mayekiso, 2003; Oelofse, 2003 Huchzemeyer, 2003) perceive the urban challenge as one of 'fragmentation'. This is whereby despite a clear commitment to urban integration and coordinated development, housing policies and practices are producing, as an unintended effect, results that are not entirely dissimilar to those produced under apartheid. Such results include poor quality housing and related social services (such as demonstrated the 'toilet saga'), as well as poor location relative to urban opportunities.

The debate that has emerged from these contrasting perspectives is imbued with divergent ideological thinking about 'cities without slums' and citizenship 'rights to the city' (see Huchzemeyer, 2011). The former perspective is exemplified by eThekwini Municipality's controversial Slum Eradication Policy, which encountered violent social protests from civil society organizations, such as Abahlali BaseMjondolo and informal settlements dwellers in areas such as Kennedy Road (Tapela, 2012). The 'rights to the city' discourse, by contrast, revolves around issues of perceived deprivation for both marginalized long-term urban residents and new arrivals. Contrary to perceptions that urban in-migrations are driven by expectations (i.e. pull factors), Atkinson's (2008) analysis shows that in-migration into the small urban centre of Philippolis is driven by push factors. These include labour-shedding caused by wage and land rights legislation for farm workers, consolidation of farms caused by globalisation-induced economic hardships experienced by farmers, drought and conversion of crop and livestock farms into game farms.

Further to this debate, narratives about mass migrations at national, regional and global scales show that South Africa's urbanization challenges are not exceptional but linked to broader dynamics that are transforming urban spaces or 'arrival cities' (according to Saunders, 2010) into 'hybrid economies' (according to 5) that characteristically have a complex mix of formality and informality. Migrations to arrival cities are creating "strikingly similar urban spaces all over the world: spaces whose physical appearance varied but whose basic set of functions, whose network of human relationships was distinct and identifiable…[and] a contiguous, standardized pattern of institutions, customs, conflicts and frustrations being built in these places across the poor expanses of the 'developing' world and in the large, wealthy cities of the West" (Ibid.).

PERSPECTIVES ON WATER AND SANITATION SERVICES

From a water and sanitation sector perspective, Scott's (2013) characterization of the urban challenge starts from a premise that improving and expanding water and sanitation services requires financial investments and land for the construction of communal or public facilities. However, this raises a diversity of land tenure and tenancy problems. For example, urban settlements are host to a complexity of land arrangements, and it is common for several tenants to rent from a landlord on a plot of land that has been bought, subdivided, inherited and sold several times under informal land arrangements. Property ownership rights also tend to become unclear with time, and documents vary from the actual situation.

From a planning perspective, therefore, rapid urbanisation is overburdening the formal land registry system, which in turn hamstrings efforts to improve access to water and sanitation services particularly by households living in informal tenure and tenancy settings. For example, landlords may be unwilling to invest in better toilets and municipalities may not have available land (Scott, 2013). However, amid the changing urban milieu, South African institutional responses have generally lagged behind, in terms of policy, planning and investment (Watson, 2003; Mayekiso, 2003: 63).

Despite their 'developmental' role, municipalities have also neither sufficiently anticipated the rapid urban growth and/or adequately prepared for the associated need for massive investments in social infrastructure and services (Watson, 2003), such as housing, water and sanitation. Furthermore, the planning paradigm seems to have largely remained orientated more towards infrastructure development than service delivery, and land availability rather than appropriateness of land (Scott, 2013).

POST-1994 EMERGENCE OF SOCIALLY-EMBEDDED LAND MARKETS

Research findings by Urban LandMark suggest the existence of a land market that is technically 'outside' of the legal system, but that these land practices are nevertheless organised, and possess sophisticated local land management and regulatory systems (Napier & Royston, 2013). The research notes that the low incidence of land conflicts in both neighbourhoods shows that these governance practices are relatively functional.

The above view is affirmed by field evidence that the tenancy sub-sector often has intricate linkages to both formal housing and informal settlements. For example, the use of open spaces is increasingly negotiated between backyarders and the resident community (e.g. 'Freedom Park' and 'Mshini Wami' in Joe Slovo Park, Milnerton, both in Cape Town). The reasons for this development are multiple but mainly revolve around 'shelter poverty'. They include:

- Post-1994 housing policy failure to shift apartheid tendencies to locate the urban poor far away from places of employment while subsidizing the bulk costs of a commuting labour force, which still vests a relatively high proportion of the monetary and non-monetary costs of overcoming the frictional effect of distance upon low-income households;

- Perpetuation by post-1994 housing policy of the apartheid state approach to deliver complete house structures through RDP rather than promote an incremental approach to housing delivery (e.g. through slum and formal housing upgrades), which benefits fewer shelter poor households and does not effectively reduce the housing backlog;

- Demand for shelter that becomes stretched beyond the upper limit of available formal housing, and disgruntlement over long stay in housing waiting lists, which leads people to break out of these lists or "databases" and informally establish their own houses;

- Failure by RDP to make housing an asset increasingly replaced by trend towards home owners or property rights holders 'milking' the asset value of housing while also stretching the legal limit and capacity of infrastructure via illegal connections, through which they benefit financially from renting out illegal connections;

Furthermore, Urban LandMark's research findings challenge conventional understandings of formal and informal markets. They show that these socially embedded land markets allow us to understand how urban territory is carved up and managed. Such findings also transform the way we conceptualise formality and informality in African cities, allowing us to see how informal urban economies are co-produced by state and non-state regulatory systems. These 'hybrid economies' have implications for how we understand governance, markets and the role of the state in our cities.

Regarding linkages between tenure security and investment, questions include whether it is legal or actual tenure that provides sufficient security, and if tenure is the precursor or successor of investment (Scott, 2013). While proponents of land titling [e.g. De Soto, 2000] argue that illegality discourages capital investment and that legal tenure is the precursor and prerequisite for investment, others suggest that it is security (i.e. not fearing eviction) rather than legal title that provides sufficient impetus to invest (Ibid.). The gender dimension to tenure security issues is that, in contexts whereby women have less access to housing and land than their male counterparts, owing to social dynamics around inheritance, marriage, decision-making and/or migration, such dynamics shape the way property is accessed, owned, managed and transferred. Although these dynamics make it difficult to draw generalities on gender inequities and tenure, since these are formed by widely different contextual circumstances, it is important for research to clarify gender issues, including the more nuanced issues of dignity and affirmation, which often are subsumed within grievances about water and sanitation.

QUESTION OF TENANCY

Observations have been made, however, that South African municipal water and sanitation services planning and delivery have largely overlooked the potential of rental housing as a key feature of urban real estate, an essential housing option for the poor, and an integral component of well-functioning cities. Although tenancy is a viable livelihood strategy for both

tenants and landlords (Gardner, 2010; Tunstall, 2008), national housing policy has increasingly focused upon conferring ownership rights and rather than developing rental housing options. Advances in national housing policies over the last four decades have been preoccupied with bestowing ownership rights, thereby largely omitting rental housing although it is a viable livelihood strategy for both tenants and landlords (Scott, 2013). Added to the aforementioned challenges, guidelines for minimum standards for 'progressive realization' of access rights to water and sanitation under varying tenure and tenancy arrangements have yet to be made explicit.

Gardner (2010) characterizes the tenancy sub-sector as generally one of the most successful, efficient and pervasive accommodation delivery systems in South Africa. Of the 2.4 million South African households that rent their primary accommodation, 850 000 (35%) occupy small-scale private rental units. This equates to approximately 10% of all South African households. Contrary to popular belief, 53% of all small-scale rental units are formally constructed (houses, flats, or rooms), while the balance (47%) consists of shacks in backyards. The small-scale private rental sub-sector attains these achievements with no direct state support, and at times in contravention of a hostile policy framework. Gardner further notes that the fastest growing sub-sector within the small-scale private rental sector is houses, flats and rooms built on properties with existing dwellings. These showed a growth rate of 83% between 2002 and 2006. During the same period, the average delivery of formal, small-scale private rental units was 33 500 units per annum, also without direct state support. In financial worth, the South African tenancy sector is currently estimated to be generating a rental income in excess of R420 million per month, or just over R5 billion annually. The majority of landlords are otherwise unemployed. In the townships, many are elderly women with little or no other sources of income. It is useful to examine such findings from the lens of water and sanitation services.

At the plot level, the glowing achievements by the tenancy sector may not necessarily translate into an equivalent broadening of equity in access to water and sanitation services. As Scott (2013) observes, it cannot be assumed that the mere presence of a toilet on the plot means the tenants have access to it. In certain tenancy scenarios, inequities in access to water and sanitation services are likely reproduced at the modest level of the plot, which runs counter to the grander objectives of reducing disparities inherited from the country's racially-oriented historical political economy. There is a plausible need to unpack the micro-level challenges presented by different formal and informal tenure and tenancy arrangements to equitable access to water and sanitation services by the urban poor, marginalized and vulnerable groups living in low- and middle-income contexts.

A major problem, though, is that although rental housing is evidently a key feature of urban real estate, integral to well-functioning cities and an essential housing option for the poor, this fundamental reality seems to have largely been overlooked in much of South African municipal water and sanitation services planning and delivery. Informal rental housing in South Africa (as in similar developing country contexts elsewhere) indeed seems to have a poor

reputation, perhaps owing to the prevalence of exploitative 'slumlords'. Exploitative landlordism characteristically reinvests back into the housing stock very little of the capital generated by the rental sector or accrued to government (on paper often the formal landowner) (Gulyani & Talukdar, 2008).

For example, evidence from backyard dwellers in South Africa (Schaub-Jones, 2009), Kumasi in Ghana (Scott, 2011) and Calcutta in India (Garnet, 2003) suggests that live-in landlords may prefer to keep a toilet for their own use while tenants either use another facility (often of lesser quality and higher loading), a public toilet or practice open defecation. In Pikine-Dakar in Senegal, most (77%) of tenant households shared sanitation facilities with other households, compared to the small proportion (17%) of owner-occupiers with shared access to ablution facilities **(**Scott, 2011). Such practices create a vicious cycle of poor investment. In the case of live-in landlords, however, while they may not share the same services as their tenants, the capital that is generated from the rental is more likely to remain and potentially be reinvested locally (Gulyani & Talukdar, 2008).

Beyond notions about exploitative slumlords, however, there is a need to develop clear understandings of the reasons why informal landlords often fail to invest in enhancing their tenants' access to water and sanitation services. Conversely, it is also necessary to clarify the reasons why municipalities largely fail to support water and sanitation services provision by informal tenancy sub-sectors that significantly contribute to meeting the country's critical need for housing.

Although tenancy is a viable livelihood strategy for both tenants and landlords (Gardner, 2010; Tunstall, 2008), national housing policy has increasingly focused upon conferring ownership rights and rather than developing rental housing options. Added to the aforementioned challenges, guidelines for minimum standards for 'progressive realization' of access rights to water and sanitation under varying tenure and tenancy arrangements have yet to be made explicit.

INFORMAL SETTLEMENTS

With specific regard to informal settlements, Huchzermeyer (2004) asserts that the proliferation of informal settlements in urban centres points to failures of the regulatory paradigm of planning. Challenges also seem to relate to the existence of divergent perspectives on how to address challenges of tenure and, by extension, service delivery in these rapidly growing municipal areas. Huchzermeyer (2011) characterizes the problem in terms of an ideological contestation between the neo-liberal 'cities without slums' agenda, which gained legitimacy from UN Habitat's endorsement in its Millennium Development Goals (MDGs), and the Lefebvrian "right to the city" perspective, which is championed by the Marxist lobby.

Drawing on cases from South Africa, but also exploring parallel dynamics operative in Kenya, Zimbabwe and Nigeria, Huchzermeyer shows how an international development paradigm

that emerged at the turn of the millennium – propagated by global governance actors such as the United Nations, the World Bank, and various NGOs – has urged cities to compete with one another for foreign investment by enacting urban policies and producing cityscapes that will be attractive to corporate capital (Björkman, 2013). In the case of South Africa the "rights to the city" lobby has responded by actively resisting attempts by a number of municipal authorities, for example eThekwini, to articulate the neoliberal "cities without slums" agenda, expressly through pursuing policies to eradicate the "embarrassment" of slums (particularly those that are most visible) from central urban locations in an effort to produce attractive "world-class" cities (Ibid.).

While there might be strong linkages between ideological contestations (Huchzermeyer, 2011) and many of the social protests that have burgeoned to unprecedented levels in urban centres across South Africa, the perceived reality for many of the urban poor is that they bear the brunt of lack of secure access to water and sanitation services (Tapela, 2012; Tapela et al., 2015). At the crux of contestation is the disjuncture between institutional inertia in the face of a rapidly growing demand for services, on the one hand, and informal settlement dwellers' unmet expectations for services delivery. The problem of inertia is often characterized as one of lack of investment by major stakeholders and shortage of available land and space (Scott, 2013).

GENDER ISSUES

Beyond issues of data, there seems to be a plausible need to develop clear understandings about gender issues associated with the unfolding mix of tenure and tenancy arrangements in selected low- and middle-income urban residential areas of South Africa. Although water sector institutional frameworks, such as the 1992 Dublin Principles and the 2011 AMCOW Policy and Strategy for Mainstreaming Gender in Africa's Water Sector, recognize the central role that women play in the use, development, management and safeguarding of water resources, evidence seems to suggest that women often bear the brunt of insecure access to water and sanitation services but have lower degrees of access to decision-making platforms than men (e.g. Tapela, 2012; Tapela et al., 2015; Vice, 2015).

Within water insecure households, the task of finding alternative water sources often falls on women, who also bear a greater share of the hardship and indignity of living with insufficient water for their own hygienic purposes and the responsibility to cater for the needs of other members of households, including babies, elderly people, the chronically ill and men (Tapela, 2012; 2013a; 2013b; 2015). Similarly, women and girls shoulder the greater burden of dealing with challenges of poor and insecure access to sanitation (Vice, 2015). These issues have often compelled water-insecure residents to legally and illegally connect themselves to available infrastructure. Observations have also been made that women are increasingly at the centre of protests associated with water and sanitation services (Ntwana, 2015). However, the linkage between gender, water and sanitation, and land tenure and tenancy has yet to be sufficiently clarified.

Although institutional frameworks, such as the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW), the SADC Gender Protocol and the South African National Constitution, make provision for gender equity, social factors such as unequal power relations, class, gender inquality, age and cultural practices have negative effects on the ways in which women negotiate their rights to land (Peters, 2004). Arguments by advocates for formalization of property rights, such as De Soto (2000; 2003), who propound that formalized land rights encourage land investment, turn a blind eye to the fact that women's rights to land are often contingent upon their relationships with men. While customary practices might be responsible for women's insecure access to land in traditional rural contexts, the problem might also lie with policies and development interventions that do not accommodate women's needs.

3. POST-1994 POLICY AND LEGISLATION FRAMEWORK (PGS 43-54 OF DELIVERABLE 1)

The beginning of the apartheid era brought with it constitutional imperatives to redress the legacy of historical injustices, as well as expectations by citizenry of restorative justice, improved access to social services and amenities, enhanced economic opportunities and prosperity, in the broader sense of the term. Hence, the 'Government of National Unity' (GNU) instituted a range of policy and legislative reforms to address the recognized need. This section presents a review of some of the post-1994 frameworks relating to land tenure, tenancy, housing, water and sanitation services, among other things.

WHITE PAPER ON HOUSING: 1994

At the ascendance of the post-apartheid state in 1994, the Housing White Paper (DHS, 1994) asserted that security of tenure was a cornerstone of the Government's approach towards providing housing to people in need. The White Paper also articulated the linkage between tenure and access to water and sanitation services.

Assessment of Living Conditions, Existing Housing Stock and Rate of Supply

In its analysis of Living Conditions, Existing Housing Stock and Rate of Supply, the White Paper stated that a relatively small formal housing stock, low and progressively decreasing rates of formal and informal housing delivery in South Africa had resulted in a massive increase in the number of households forced to seek accommodation in informal settlements, backyard shacks and in overcrowded conditions in existing formal housing.

According to the White paper, approximately 61% of all urban households lived in 'formal housing' or shared formal housing with other families. The total formal housing stock in South Africa included formal houses, flats, townhouses and retirement homes.

There were approximately 1.5 million urban 'informal housing units', which included around 620,000 serviced sites delivered by the old Provincial Authorities and through the Independent Development Trust's (IDT) Capital Subsidy Programme, as well as almost 100,000 unused (sterilised) serviced sites.

An estimated 5.2% of all households resided in 'hostels', which were owned by the private sector, grey sector and public sector. No new hostel accommodation had been constructed in the five years preceding 1994. However, approximately one third of all public sector hostels (58 in all) housing approximately 100,000 people had been or were in the process of being upgraded.

Approximately 13.5% of all households (± 1.06 million) lived in 'squatter housing' nationwide, mostly in free-standing squatter settlements on the periphery of cities and towns and in the back yards of formal houses. Low rates of formal housing delivery coupled with high rates of new household formation had resulted in a massive growth in the number of people housed in squatter housing. This form of housing was the most prevalent means through which urban households were accessing shelter in South Africa at the time. It was estimated that approximately 150,000 new households per annum housed themselves in this way. The White Paper commented that the rapid increase in the number of land invasions since 1994 was a further indication of this, and that policy responses from all tiers of government would have to be proactively responsive to this fact in the short term.

Furthermore, two thirds of the 17.1 million people estimated to live under the poverty datum line (PDL) lived in the 'rural areas'. Of the 14.5 million people estimated to live in the rural areas, the greater proportion resided outside commercial farming areas. Within rural areas, there was a mix of both formal and informal housing structures but what all such areas generally shared in common was inadequate access to potable water and sanitation, and a general insecurity of tenure.

With regard to 'farm worker housing', the Housing White Paper stated that estimates on farm worker households varied considerably between 1.0 and 1.5 million households. From 1990 farm owners had received subsidies towards the building of 20,140 approved farm worker residences. Farm workers did not have security of tenure, and were therefore reluctant to put earnings into housing. Consequently, the living conditions of farm workers were among the worst in the country, especially the hostel-type accommodation for seasonal workers.

Effectively, the White Paper highlighted the need for interventions to give particularattention to the needs of informal settlement dwellers, farmworkers and residents of rural areas outside commercial farms areas. These needs critically included access to land, security of tenure and access to basic services such as water and sanitation, among others.

Access to Water and Sanitation Services

With respect to water supply, the White Paper cited research findings by the South African Labour Development and Research Unit (SALDRU, 1994) that approximately 25% of all functionally urban households in South Africa did not have access to a piped potable water supply. Furthermore, an estimated 48% of all households did not have access to flush toilets or ventilated improved pit latrines, while 16% of all households had no access to any type

of sanitation system. Farm workers were the worst off, with 49% of these workers reliant on the veld for their ablutions, compared to the 85% of rural households with some form of sanitation system.

In light of these findings, the White Paper surmised that there was a need to develop a set of national standards for the provision of water and sanitation services and the management and control of human activities on the country's water resources.

With respect to Technology Choice and Infrastructure Costs, the policy approach adopted by the White Paper was that provincial authorities should define a service matrix for use by local authorities. In that regard, it was important to recognise that the choice of service level was influenced by a range of interactive factors. For example, the nature of the housing development diversely included, among other things, greenfield in-situ upgrading; inner-city infill; access to and availability of bulk infrastructure; on-site conditions; site layout, site sizes and densities; community needs and priorities and the need to ensure basic health, safety and welfare; ability of local authority to administer and maintain services; the ability to upgrade services where necessary; and impact of technology choice on the environment.

Regarding Cost-Recovery and Tariffs, the Housing White Paper recommended that the structure of the tariff for both water and sanitation should be set at the national framework or strategy, accommodating regional variations.

TENURE REFORM POLICIES

Royston (2002) states that since 1994 a range of policies and laws have been developed, instituted and implemented to redress the legacy of historical inequalities in tenure security and access to land. It is within the policies emanating from both the Departments of Housing and of Land Affairs that national policy guidelines for urban tenure security are to be found. Two key policies include the Subsidy Policy and Land Reform Policy. In practice, however, the land reform programme has mainly been rural in focus whereas the national housing capital subsidy scheme has been "arguably the most important instrument for urban tenure reform" (Ibid.).

NATIONAL HOUSING POLICY AND SUBSIDY PROGRAMME

Urban development in South Africa is led by the housing sector. The UN-Habitat (2003b) states that in sub-Saharan Africa, urbanization is stressing infrastructural and institutional capacity. Africa's growing cities and towns are characterised by a proliferation of informal settlements, which are characterised by poverty, overcrowding, low access to water and sanitation, lack of secure tenure and poor housing quality (UN-Habitat, 2003).

The South African Constitution, 1996 enshrines the right of everyone to have access to adequate housing and makes it incumbent upon the State to take reasonable legislative and other measures within its available resources to achieve the progressive realization of this right

(DHS, 2010). In response to this Constitutional imperative, Government has in terms of the Housing Act, 1997 (Act No 107 of 1997) introduced a variety of programmes which provide the poor households access to adequate housing. The policy principles set out in the White Paper on Housing aim to provide poor households with houses as well as basic services such as potable water and sanitation on an equitable basis. The limited resources available from the fiscus however necessitate the provision of housing, security and comfort to all over time (Ibid.).

Ten years after the introduction of the housing programme in 1994, a comprehensive review was undertaken of the outcomes of the programme and the changes in the socio-economic context in the country (DHS, 2010). This lead to the approval of the Comprehensive Plan for Sustainable Human Settlement commonly referred to as "Breaking New Ground" or "BNG" by Cabinet in September 2004. The 'Breaking New Ground' government policy document recognises the important role played by tenure issues in services provision (South Africa, 2004). The approach was to provide tenure in terms of tittle deed and provision of social services, such as water, sanitation, housing and electricity. Royston & Narsoo (2006) assert that tenure and access to services are interlinked in that if households do not have title their ability to access services, including free basic services, is severely circumscribed. In effect, tenure and development are inextricably linked as key issues for managing urbanisation and reducing poverty (Payne et al., 2007).

While retaining the basic principles of the Housing White Paper, the Comprehensive Plan shifts the focus to improving the quality of housing and housing environments by integrating communities and settlements. It also sets new minimum standards for housing products improving privacy and sustainability by providing for the development of a range of social and economic facilities in housing projects. The Comprehensive Plan also focuses on Informal Settlement Upgrading to meet the Millennium Goals of the United Nations to improve the lives of slum dwellers (DHS, 2010). On the basis that the state can only make limited contribution, the subsidy programme is designed to be driven by private (individual) investment, credit finance and where possible the sweat equity of the owner. Indeed the ethos of the Comprehensive Plan echoes an assertion by the Housing White Paper that:

"One of the greatest initial challenges facing all role players is the creation of a public environment conducive to attracting the necessary private investment, both of the household as well as that of the institutions. Our collective success in achieving this productive climate will be the essential foundation for removing the blight of homelessness – one of the most visible and destructive legacies of the past. Success in meeting the housing challenge will be one of the cornerstones of rebuilding our social structures and regenerating the economy".

The National Housing Policy and Subsidy Programme accommodates a variety of tenure options. It is implemented through a range of subprogrammes (Table 1).

Table 1. Overview of the Current Housing and Subsidy Programmes

Integrated Residential Development Programme
Upgrading of Informal Settlements
Provision of Social and Economic Facilities
Housing Assistance in Emergency Circumstances
Social Housing Programme
Institutional Subsidies
Community Residential Units Programme
Individual Subsidy Programme
Rural Subsidy: Communal Land Rights
Consolidation Subsidy Programme
Enhanced Extended Discount Benefit Scheme
Rectification of Certain Residential Properties Created Under The Pre-1994 Housing Dispensation
Housing Chapters of an Integrated Development Plan
Operational Capital Budget (Ops/Cap)
Enhanced People's Housing Process
Farm Residents Housing Assistance Programme

URBAN LAND AND HOUSING POLICY

At the heart of the challenge of urban dualism, according to Mammon et al. (2008), is failure to translate policy into making positive urban environments. Although the National Constitution's Bill of Rights protects the rights of citizens to housing and access to basic nutrition, water, shelter, basic health care and social services, and although South Africa has ratified the United Nations' Millennium Development Goals (MDGs), municipalities have not focused on spatial solutions for local social and economic challenges. While national level policies and strategies promote increased levels of service delivery, the Constitution has put the onus on Local Government to attend to the economic and social development of communities.

The Constitution requires local municipalities to supply adequate municipal health facilities, child care facilities, local amenities, local sports facilities, markets and street trading, public

spaces and parks, recreational spaces, municipal roads and transport, firefighting services, municipal planning and building regulation amongst other things. Provincial authorities are largely responsible for health and education along with housing, while National level government directs subsidies to ensure the safety nets are in place. However, both economic and social development remains unclear. While the constitution does not define either of these clearly, it does define the responsibilities of respective spheres of government. This helps to clarify understandings of what government perceives to be the key needs at local level, but the problem remains that social and economic development are generally dealt with as specialised line departments, such as 'Social Services' and 'Economic Development'. This allows for little, if any, cross-sectoral thinking and implementation to address the complex and multifaceted nature of poverty from an integrated perspective (Ibid.).

According to a 2004 State of the Cities Report (SOCR, 2004: 276 in Mammon et al., 2008), national level strategies have identified housing and 'service delivery' (the provision of water, power, solid waste removal and sanitation) as a core function of the state to address past inequities and addressing poverty. At the housing level, the key policy drivers, among others, in South African cities include:

- The Housing Act (Act 107 of 1999), as amended, which provides for 'the facilitation of a sustainable housing development process';
- Breaking New Ground (BNG) (South Africa, 2004), which takes as its point of departure the constitutional rights of South African citizens to housing and has as its goal Sustainable Human Settlements (SHS).
- The Social Housing Bill (2007), which provides for rental or cooperative housing options for low to medium income households at a scale that requires institutionalized management to be provided by social housing institutions or their equivalent in designated zones with the benefit of public funding as provided for in the Housing Act.
- The National Framework for Sustainable Development (NFSD) (DEAT, 2006), which provides for the imperative to deliver more sustainable forms of development, and is informed by the Sustainable Human Settlements strategies. According to Mammon et al. (2008), the NFSD could influence outcomes at the local level.

Swilling (2006: 23-50 in Mammon, 2008) uses Cape Town as a case study to examine and critique the South African government's strong emphasis on investment in urban infrastructure. He argues that sustainability and sustainable development options, with respect to infrastructure planning, must inform future urban settlement. Swilling states that Sustainable Human Settlements (SHS) strategies, such as the Western Cape's, have endeavoured to focus the state and practitioners on developing more sustainable environments by:

- Requiring that the housing challenge be considered more holistically rather than a demand-supply driven approach;
- Shifting to a resource conscious design and planning approach with specific focus on land as a resource to encourage the more centralised location of residential development; and
- Looking at ways to generate social capital with specific focus on how to increase access

to loan funding.

Swilling surmises that these policies and the NFSD in particular measure sustainability in terms of a set of targets, which are quantitative and disregard the 'softer' issues of culture, heritage, and landscape among others. Development solutions focus on technology to provide a sustainable approach to urban infrastructural capacity issues.

Where land is concerned the key policy or legal frameworks that govern the question of urban land in South Africa include:

- Breaking New Ground (South Africa, 2004), which promotes access to well-located urban land and state or publicly-owned land in particular that should be developed in a sustainable manner and form and promote spatial restructuring while recognizing the existence of a property market that operates across both the first and second economies;
- The property clause in the South African Constitution which, among others, commits government to land redistribution on the one hand while protecting existing property rights, on the other hand (Ntsebeza, 2007:110);
- Legislation such as the Restitution of Land Rights Act (Act 22 of 1994) which promotes the principle of social justice through the restoration of land rights lost by displaced land claimants or communities;
- The Urban Development Zone (UDZ) (CoCT, 2004 in Mammon et al., 2008), which is a policy or tool that sits somewhere between land and housing and applies only to Cape Town and Johannesburg in terms of urban development. The aim of the UDZ is to reverse economic decline in inner cities; and maximize efficient utilisation of existing infrastructure. This is obviously a powerful policy tool with respect to inner city revitalisation the effects of which are clearly visible in the Cape Town inner city urban development zone. However, the negative effects include gentrification, which essentially adds to the housing problem.

LAND REFORM POLICY

The Land Reform Policy aims to extend greater tenure security to South Africans under diverse systems of tenure. The policy and vision seek to address:

- the racially-based land dispossession of the past;
- the need for a more equitable distribution of land ownership;
- the need for a kind of land reform that will reduce poverty and create jobs;
- security of tenure for all; and
- a system of land management that will make land available for development, but not harm the environment (DLA, 1997).

The three elements for operationalizing the Land Reform Policy or vision are:

- **Land Restitution**, to address cases where people lost land after 1913 because of forced removals; the cut-off date for applications for land restitution was December 1998.
- **Land Redistribution**, to give those most in need a chance to get land for housing and

productive purposes. This caters for urban and rural areas and includes labour tenants, farm workers and people wanting to start farming.

- **Land Tenure reform**, which is a process of reviewing all the old land policies and laws in order to improve the tenure security of all South Africans (Ibid.).

The land tenure reform programme has frequently been referred to as potentially the most significant of the three 'legs' of land reform (Hall, 2004). Tenure reform aims to address the inequalities between owners and occupiers by formalizing informal rights, upgrading weak rights and setting in place restrictions on the removal of rights to land (DLA 1997:57 in Hall, 2004; Royston, 2002).

Land tenure has been defined as 'the terms and conditions on which land is held, used and transacted' (Adams et al., 1999:1 in Hall, 2004). Reforming land tenure involves recognising or upgrading the informal rights of those occupying but not owning land (Royston, 2002; Hall, 2004). This is required by Section 25(6) of the Constitution, which states that:

> *A person or community whose tenure of land is legally insecure as a result of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to tenure which is legally secure or to comparable redress* (RSA 1996a in Hall, 2004).

Tenure reform therefore affects the ways in which people hold land, whereas land redistribution and restitution involve the transfer of land ownership from one owner to another (Hall, 2004). According to Royston (2002), that the provinces have driven one of the major urban tenure reform initiatives in South Africa, which is a process of large scale privatization of public rental stock in terms of which units are being transferred to occupants. The demand for transfer to ownership is almost universal, owing to the historic denial of ownership. Nonetheless, this programme has raised the need for alternative forms of tenure, such as family title, due to the difficulty of establishing clear entitlement, as a result of innumerable informal changes in tenancy and a variety of occupancy patterns resulting from overcrowding, including the occupation by more than one family of a single unit.

Royston (2002) further observes that while land tenure reform is intended to establish legally enforceable rights to land and to build a unified non-racial system of land rights, legal rationalisation is faced with the enormous challenge of an inherited "maze of laws". This legacy has resulted in the co-existence of a variety of land rights, which are interpreted differently according to different pieces of legislation, varying from freehold to leasehold rights, Deeds of Grant and Permission to Occupy (PTO) rights. For example, the nature of the rights conferred in terms of deeds of grant, and the registration procedures administering the rights, vary according to the range of laws conferring such rights, and according to specific geographic contexts. A further example is that PTOs are no longer issued, but the rights conferred in terms of the permission to occupy certificates are still in existence.

Royston comments that this complexity is exacerbated by the fact that the land reform policy establishes that tenure reform must accommodate *de facto* vested rights. The process of establishing and consolidating the homelands and informal settlement development has generally resulted in a *de facto* situation of overcrowding and overlapping of land rights. Recording systems have been accused of being inaccessible and have frequently failed to keep up with the dynamic processes of urbanization and settlement, leading to uncertainty about the current rights holders. In certain instances records were destroyed through political protest action.

With regard to informal, unregistered settlements, Royston states that no formal means exists for identifying either the rights holder or of defining what the holder is entitled to get. Hence, attempts to secure tenure based on the *de jure* situation are sure to lead to conflict or to fail. Ascertaining the *de facto* condition requires, on the other hand, local level investigations, facilitation and in all likelihood, dispute resolution. Accommodating *de facto* rights is bound, in many cases, to require the provision of alternative land. Royston also asserts that *In situ* tenure reform initiatives should be linked with the development of new land, not only to accommodate de-densification and non-residential uses, but also to provide choice to beneficiaries. Beneficiary choice is required if households are not to be condemned again to peripheral locations. Royston surmises that such an approach could possibly challenge apartheid spatial form and offer the chance of more sustainable types of development.

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