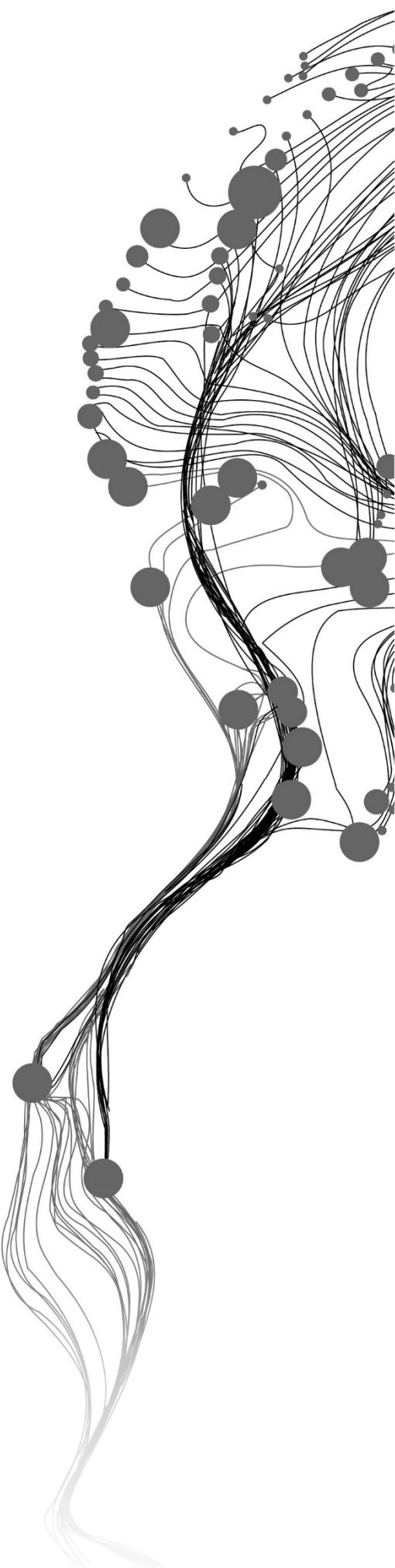


INVESTIGATING THE IMPACT AND USE OF COMMUNITY ENUMERATIONS ON TENURE SECURITY IN INFORMAL SETTLEMENTS-THE CASE OF GOBABIS MUNICIPALITY IN NAMIBIA

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March 2018

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ABSTRACT

Majority of informal settlement dwellers are living in tenure insecurity, resulting in poor to no investment in infrastructure. Improved tenure security can thus lead to poverty reduction, and improvement of infrastructure in informal settlements. Unfortunately, it is difficult to measure tenure security for informal settlements due to a lack of data on settlements and an agreement on what tenure security entails by stakeholders. Nevertheless, communities in informal settlements, who are part of federated saving groups have been producing data on their communities, which is able to provide solutions to insecurity and improve service delivery. This data impacts improvements for households if used by communities and local authorities for decision making and planning.

This paper investigates the impact of community enumerations on tenure security in informal settlements in Gobababis. The use of community-generated data was assessed using semi-structured interviews with officials. In addition, households tenure security levels were assessed after conducting households household surveys in four informal settlements, measuring fear of eviction and confidence in *de facto* tenure security. The study reviews text on concepts around tenure security. Detailing how, perceived and *de facto* tenure security are components to measure tenure security for informal settlements dwellers. These concepts are operationalized using Likert scale responses from survey data. The study highlights how, tenure security is better assessed using confidence in *de facto* variables, such as the confidence to invest in structure, plans of households to stay in settlement and bequeathing of structure to heirs. Compared to measuring perception based on fear of eviction. The study, highlights the importance on the need for interventions in providing households with documentation to secure tenure. Although non-legal factors are available to provide security in informal settlements, households still need permission from local authority to build permanent structures. The settlement with the highest level of tenure security, based on confidence in *de facto* variables has been planned by community members themselves and occupants are waiting for land tenure documentation, although households in the settlement have access to fewer water taps compared to another settlements in the study area.

The study offers important insights into the community enumerations process, highlighting the purpose and use of the data, plus the contributing factors and challenges in achieving tenure security. It was observed in the study after analysing the goals of community enumerations, that the process is divided into two levels, one dealing with the actual collection of the data, the second dealing with the use of data by engaging stakeholders. The study thus proposed a continuum for undersaving the purpose and use of community enumerations for achieving tenure security for saving group members and informal settlement residents. The results of the study suggest the way data is used by the local authority and the understanding of its purpose of the data by households in informal settlements limits the effectiveness of socio-economic and spatial data for planning.

It is hoped that this study will inform academics, policy-makers and other stakeholders on understanding levels of tenure security. and the usefulness of the data derived from community enumerations to support pro-poor land administration.

Keyword s: *Community enumerations, Tenure security, Informal settlements, Saving groups*

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Ecclesiastes 10:10-If the axe is dull and its edge unsharpened more strength is needed, but skill will bring success.

Menare Mabakeng
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LIST OF ABBREVIATIONS

CLIP	Community Land Information Program
FFP	Fit for Purpose
FLTA	Flexible Land Tenure Act
FLTS	Flexible Land Tenure System
GIZ	Gesellschaft für Internationale Zusammenarbeit
GPS	Global Positioning System
MDG	Millennium Development Goals
MLR	Ministry of Land Reform
MURD	Ministry of Urban and Rural Development
NDP	National Development Plan
NGO	Non-Governmental Organisation
NHAG	Namibia Housing Action Group
PSUP	Participatory Slum Upgrading Program
SADC	Southern Africa Development Community
SDFN	Shack Dwellers Federation of Namibia
SDG	Sustainable Development Goals
SPSS	Statistical Package for the Social Sciences
STDm	Social Tenure Domain Model
UML	Unified Modelling Language

1. GENERAL INTRODUCTION

1.1. Introduction

Residents in informal settlements suffer from tenure insecurity, poor housing conditions, and limited urban infrastructure (UN-Habitat, 2016a). The social vibrancy of informal settlements makes them worthy for special policy attention (Turok & Borel-Saladin, 2016). Situations in informal settlements are considered a global ethical challenge, such that governments have to put in place legislation to improve conditions, supported by international NGOs, donor organisations Khalifa, (2015, p. 1155). Informal settlements are the physical manifestation of social exclusion in African cities (Arimah, 2001). This settlement house one billion of the world population (UN-DESA, 2014, p. 2). With an estimated 863 million people housed in 2012 (ibid). While there is a decline worldwide in proportions of informal settlement dwellers, the estimated percentage of urban dwellers in Sub-Saharan Africa remains high at 55% (United Nations, 2015b). This could potentially fuel the growth of settlements if solutions are not provided as urban and informal settlement growth are synonyms in Africa (Dobson, 2017). In this study, informal settlements and slums are the same areas as similarly adopted by Mahabir, Crooks, Croitoru, and Agouris, (2016). Tenure security has been found by academics, policy-makers and developing agencies to be a determining factor in poverty reduction, as it promotes household investment and improvement of infrastructure (Payne, 2001; Payne, 2004; van Gelder, 2010b).

Residents in informal settlements are the most affected by evictions and are excluded from participating in decision-making platforms regarding their areas of residence (Beukes & Mitlin, 2014). Information on household's land tenure security in informal settlements is vital for implementing interventions for reducing poverty by governments. Furthermore, will aid in the implementation of pro-poor land administration (Zevenbergen, Augustinus, Antonio, & Bennett, 2013), by way of implementing land rights recordation, that will protect the informal rights of the poor and low-income households.

Community enumerations carried out by informal settlement households themselves in their communities is reported to have the power to impact decision-making, improve tenure security and promote participatory planning (S. Patel & Carrie, 2012). The norm, is international agencies and governments rarely look to informal settlement occupants as providers of solutions, the data provided by Slum/Shack Dwellers International (SDI) affiliated communities shows communities do have solutions (S. Patel & Carrie, 2012, p. 6). The slogan of saving groups on data collection is that "information is power", as in Kenya (Stanfield et al., 2017). According to Davies, (1994) information has power if it is used for the intended benefits the data was collected for, power can also mean it can be used to disable others. According to Jacobs, Jordhus-Lier, and de Wet, (2015) using local knowledge in decision making has been shown as a way to better decision making, legitimate governments and a notion of citizenship. However, in the inclusive governance process, there is no guarantee that community knowledge is meaningfully included (Jacobs et al., 2015).

There is vast literature on the progress of SDI affiliated federations, illustrating how communities are using community enumerations to improve living conditions in informal settlement, prevent evictions and improve tenure security (Patel, Baptist, & D'Cruz, 2012; du Plessis, 2005; UN-Habitat, 2011; Scott, Cotton, & Sohail Khan, 2013). Furthermore, improved access to services and recognition of informal settlements by local authorities (S. Patel et al., 2012; Karanja, 2010). Community-generated data collection was used as a

tool to promote inclusive planning and avoid affections, in this way improve tenure security. As in some countries, data on informal settlements and tenure security is at most times unavailable or when available it is inadequate for planning purposes (Beukes & Mitlin, 2014). If data is available it is at different scales (Mahabir et al., 2016). In addition, official census data is not always available on informal settlements (S. Patel & Carrie, 2012); when available, informal settlements are at most times omitted (Pugalis, Giddings, & Anyigor, 2014). Urban managers and policy-makers have used unavailability of data as an excuse not to prioritize improvements (Chakraborty, Wilson, Sarraf, & Jana, 2015). Information collected by saving groups works to change the limited data on informal settlements and builds partnerships with local governments (Beukes, 2015); and influence the tenure security of informal settlement households (Muller & Mbanga, 2012). The community enumeration changes perceptions and encourages partnerships with powerful agencies (Appadurai, 2001).

There is an agreement that individual land titling on its own cannot provide tenure security (Zevenbergen et al., 2013) for the poor and low income. Understanding the land tenure security of informal settlers, and available data on communities may aid in implementing solutions that are pro-poor and Fit For Purpose (FFP). According to Enemark, Bell, Lemmen, and McLaren, (2014), FFP approaches are solutions that are flexible in the spatial data capture, inclusive, participatory, affordable, reliable, attainable and upgradable. To understand if solutions are possible, the study looks at the available on informal settlements for Gobabis and whether authorities are using the available data to improve tenure security of informal settlement residents.

Land tenure security plays a role in the function of a land tenure system (Unruh, 2010, p. 2). Tenure security is a vital aspect in land administration, as it allows the land occupiers to use land on a continuous bases, free from interferences from outsiders (van Asperen, 2014, p. 28). There is a consensus amongst researchers that land tenure security is important for poverty reduction and informal settlement development (Payne & Durand-Lasserve, 2012; Durand-Lasserve, 2006; Reerink & van Gelder, 2010; van Gelder & Luciano, 2015). Although researchers cannot agree what land tenure security entails (van Gelder & Luciano, 2015). Recently tenure security was studied by Simbizi, (2016) *measuring tenure security, a pro-poor perspective*. In the thesis, Simbizi gave a definition that tenure security is an emergent property of a land tenure system. That for households to be tenure secure there should be a positive interaction between various elements of the land tenure system (Marie Simbizi, Bennett, & Zevenbergen, 2014). Furthermore, Simbizi, notes that existing definitions on tenure security, are not relevant for sub-Saharan Africa, as they provided a reductionist view. Simbizi et al., (2014). Tenure security was categorised into three schools of thought; legal, economic, and adaptation; and a theoretical model was designed to measure tenure security. The application of the theoretical model was tested in Rwanda (Marie Simbizi, 2016), this is further expanded upon in chapter 3. Before Simbizi, van Gelder summarised tenure security in a tripeptide model; *de facto*, *de jure* and perceived tenure (van Gelder, 2010b). The model was tested in low-income settlements in Buenos Aires; to understand whether tenure security is a predictor for low-income household's investment (van Gelder & Luciano, 2015). The focus for measuring tenure security in this study is derived from van Gelder's tripartite model, considering *de facto* and perceived tenure security in informal settlements. The Global Land Tool Network (GLTN) contents that tenure security lies on a continuum, each form of tenure has its degrees of security and responsibility (UN-Habitat, 2008a). Thus in this study, tenure security relates to how households perceive their tenure security, if they think and feel they are protected against forceful eviction and can further seek legal recourse in the instance that their residency in the settlement is disturbed (van Gelder & Luciano, 2015). Additionally, the degree of confidence of households in bequeathing the structure, selling, and making improvements which are components associated with *de facto* tenure security. As tenure security is a determining factor in poverty reduction, it is linked to the first goal under the Sustainable Development Goals (SDGs) set by world leaders is ending

extreme poverty and hunger(United Nations, 2015c). Poverty and land tenure insecurity are linked to exclusion and injustice (Choplin & Dessie, 2017, p. 57). For a land administration system to support the efforts of the poor, by recognizing the continuum of land rights(UN-Habitat, 2008a), especially for informal settlements, there is a need for data.

1.2. Background

Namibia has an area of 825 2354 km², with a population of approximately 2.2 million(NSA, 2013). Land tenure system is influenced by colonial history (Lankhorst, 2010, p. 198). Firstly, under German and later South African apartheid government as part of the British Protectorate after World War II. Ownership of land for natives was not permitted in urban areas and only limited to homelands, regulated under customary law(Lankhorst, 2010). Namibia has three different tenure systems, communal, governed under customary law, state tenure under the control of government and freehold managed under Roman-Dutch law and English law(Lankhorst, 2010). Urbanisation started in the late nineteen sixties, in response to the demand for labour by South African Administration (Willem, 2005). As many migrants from rural areas, to urban ended up in informal settlements (Lankhorst, 2010). Informal settlements increased after 1992(Lankhorst, 2010); this was after the enactment of the Local Authorities Act of 1992(Republic of Namibia, 1992).The Act gave all non-registered land falling within the municipal boundaries to local authorities. The number of occupants in informal settlements further increased after independence(Lankhorst, 2010). To deal with informal settlements, local authorities developed reception areas to cater for newcomers, who in turn have *de facto* tenure. According to Lankhorst, (2010), this resulted in insecurity, influenced by a lack of household maintenance and unwillingness to make improvements on structures. The lack of improvements or investment in housing is not by choice; as informal settlement dwellers are relocated at the behest of local authorities (Lankhorst, 2010).

Currently, there are 279 informal settlements in Namibia (Å. Christensen, 2017, p. 11), compared to 235 in 2009(SDFN-NHAG, 2009). The urbanization rate in 2011 was at 43%, an increase from 28% in 2001. According to the Namibia Statistical Agency, (NSA, 2013), 16 % of the Namibian population lived in improvised housing (shacks). Informal settlements results from the need for housing that are not met by conventional systems. Because of this, the poor and low income end up in informal settlements (Nakuta, 2013, p. 197). Most Namibians cannot afford housing under the conventional financial systems; according to the Center for Affordable Housing Finance in Africa (CAHF)), only 19% of the urban population in Namibia can afford a newly build house at 52 681 USD, following current mortgage financing arrangements(CAHF, 2017). Thus, most of the poor and low income end up in informal settlements. Majority of informal settlements in some way are located on land owned by the local authority. To address tenure insecurity and lack of housing finance for the poor and low-income groups, saving groups were formed under the grassroots organization Shack Dwellers Federation of Namibia supported by the Namibia Housing Action Group(NHAG), the local (NGO), (Muller & Mitlin, 2007).

The Shack Dwellers Federation of Namibia (SDFN) a network of saving groups as part of the Community Land Information Program (CLIP), in 2009, estimated that a population of over 500,000 people were living in informal settlements without security of tenure, (Muller & Mbanga, 2012).The data collected by the groups came about as part of an agreement with the Ministry of Urban and Rural Development¹ (MURD). The profiling was later followed up with community enumerations. The main expected outcomes for collecting information on informal settlements; was firstly to provide socio-economic data to local and regional authorities on informal settlement communities. Secondly improve planning and

¹ In 2009 it was the Ministry of Regional, Local Government, Housing and Rural Development

security of tenure for communities, with the use of relevant up to date data by authorities(SDFN-NHAG, 2009).

To date, there are 700 saving groups with 22 000 members countrywide(NHAG, 2017). The saving groups, just as in other countries carry out community enumerations as part of groups rituals. The use of community enumerations data by local authorities can give solutions to low-income populations in informal settlements by ensuring tenure security, through the provision of services (water, sanitation) and tacit approval for households to remain without any threats of forceful relocations; when this data is used to in planning and include communities in planning decisions. Gobabis municipality in partnership with SDFN-NHAG profiled and enumerated four informal settlements since 2012 (Freedom Square, Kanaan A, and B, Tuerijandjera, Kanaan C) in the town. Data collected is aimed to be used in implementing participatory planning with community and improved tenure security as indicated in the CLIP expected outcomes. In 2014 Freedom Square settlement was selected as a pilot for the implementation of the Social Tenure Domain Model(STDm) tool, in support of Flexible Land Tenure (FLT)Act Registration, Act 12 of 2012 (Republic of Namibia, 2012).

1.3. Research Problem

Community enumerations are said to help address insecurity, using information on informal communities to creates awareness on location of households, socio-economic situation, and promotes participatory planning for tenure security. Saving groups affiliated to the SDI collect data on their own communities, with the aim of improving access to water, sanitation and achieve tenure security(Beukes, 2015).Through saving groups process of data collection, communities are able to source support form powerful agencies(Appadurai, 2012). Additionally, the data aides in identifying development priorities for the community(S. Patel & Carrie, 2012). Saving groups have used the community enumerations as a tool to engage local authorities, improve service delivery, prevent evictions and improve tenure security(Karanja, 2010;D’Cruz, Cadornigara, & Satterthwaite, 2014;Appadurai, 2012;Makau, Dobson, & Samia, 2012;Muller & Mbanga, 2012;UN-Habitat, 2010;Loehr, 2012;D’Cruz et al., 2014). However, there is no empirical study on level of tenure security in informal settlements, that have used participatory enumerations data to the full extent. Which can validate that data has power to influence planning for informal settlements and change perceptions of local authority. The study takes the view that, spatial and socio-economic data on informal settlements is effective, thus powerful in helping communities to improve tenure security, access water, and sanitation facilities; when data is used by authorities for the indented purposes it was collected. The level of tenure security in the informal settlements is measured from the households’ perception of tenure security based on estimations on probability of being evicted using thinking and feeling state(van Gelder, 2010b). Researchers have not treated *de facto* tenure security in detail, this study fills this gap, by operationalising the variables used for *de facto* tenure security to understand level of security, thus substantiating, perceived security derived no fear of eviction and protection from authorities in in the instance households are facing eviction threats.

1.4. Justification

The research was driven by the authors experience of working with NHAG, by supporting informal settlement communities collecting and sharing socio-economic and spatial data with local authorities, coupled with exposure to theoretical knowledge of land administration systems that have driven this research. It is vital to note, saving groups have been using community enumerations to improve tenure security, by negotiating for space within urban areas for decades(S. Patel et al., 2012)(Dobson, 2017). There is evidence that participatory enumerations do play a role in the achievement of tenure security(Mitlin, 2014, p. 25). However, there are limited empirical studies on whether community enumerations do have an impact on tenure security. Important to note, various studies are available

measuring tenure security in communities that have implemented the Social Tenure Domain Model (STDM) tool promoted by the Global Land Tool Network(GLTN). This study differs, as it focuses on the use of the data, and security of tenure of households.

In addition, there are no empirical studies on land tenure security for informal settlements in Namibia. Knowledge of land tenure security is important as it can aid in identifying priority communities for the implementation of the Flexible Land Tenure Act(Republic of Namibia, 2012), that aims to improve tenure security for households in informal settlements. In addition, since its inception, the Flexible Land Tenure System(FLTS) has been noted an innovative approach with the potential to ensure tenure insecurity for informal settlers. Moreover, this study is relevant in land administration studies, as understanding community enumeration data, what is composed of and whether it has an influence on tenure security, can aid in intervention that promotes the use of innovative tools for land tenure recordation, according to the land rights continuum(Lemmen et al., 2015). The focus for this research is to study the impact of community enumerations on tenure security in informal settlements. The study attempts this by assessing the level of tenure security of occupants in four informal settlement, using perceived and *de facto* operationalised variables. Additionally, assessing the use of the data, through interviews with NGO, Ministry of Urban and Rural Development(MURD) and Gobabis municipality officials. Outcome of this study might be important for government, NGOs and researchers interested in informal settlements spatial and socio-economic data generation and use for tenure security. More importantly, policy implementation, focusing on reducing poverty, by the improvement of land tenure security.

1.5. Research Objectives

This study is motivated, by a desire to understand whether community enumerations are having an impact on tenure security in informal settlements. The Main research objective is to investigate the impact and use of community enumerations on tenure security in four informal settlement in Gobabis, Namibia. To reach this objective, the following sub-objectives are Selected:

1. To assess tenure security perceptions of households in informal settlements that have implemented participatory enumerations.
2. To assess the process followed by saving groups in the usage of participatory enumerations to achieve tenure security.
3. To assess the usage of community enumerations data of informal settlements, for tenure security by stakeholders.

1.6. Research Questions

Sub-objective one: To assess tenure security perceptions of households in informal settlements that have implemented participatory enumerations.

- a) Have residents experienced threats of evictions?
- b) What is the perception of tenure security in the informal settlements?
- c) What type of relationship exists between residents and local authority?
- d) What are the settlement characteristics versus tenure security level?

Sub-objective 2: To assess the process followed by saving groups in the usage of participatory enumerations to achieve tenure security.

- a) What are the goals of the community when collecting data in the settlement?
- b) What processes are followed by organised groups in generating data for tenure security in informal settlements?
- c) What factors contribute to the achievement of tenure security for organised groups?

Sub-objective 3: To assess the usage of community enumerations data of informal settlements, for tenure security by stakeholders.

- What legislation or policies are available in support of Participatory enumerations data use?
- What is the practice of, civil society and government (local and national) in using the data generated by informal settlements communities?
- What is the role of data generators in decisions on the informal settlements?

1.7. Research Assumptions

- Local authorities and NGOs do use participatory enumerations data to formalize tenure rights in informal settlements, thereby enhancing tenure security. This to understand the power of community enumerations, when data is used for intended benefits of producer(Davies, 1994).
- There is a strong relationship between use of participatory enumerations data by local authorities and perceptions of tenure security in informal settlements.
- Informal settlements with *de facto* tenure security are older, bigger, have more services and community leaders have a higher level of tenure security compared to those with smaller, with no organisation and leadership structure in place(van Gelder, 2010b).

1.8. Conceptual framework

Figure 1:1 illustrates the concepts used in this study. The conceptual framework shows the linkages of community enumerations informal settlements and tenure security. To understand, the impact of community enumerations on tenure security, impact and use of data is assessed looking at the formal institution, which is the local authority, that gives the households in informal settlement legitimacy and are responsible for managing this areas.

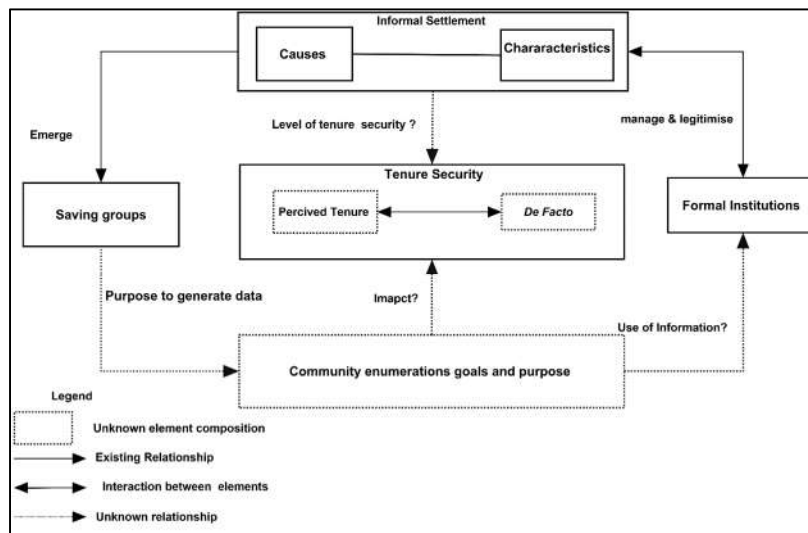


Figure 1:1 Conceptual Framework

Figure 1:1 shows concepts on the understanding impact of data use and how they are linked. The framework encompasses these concepts: security of tenure, saving groups/organised groups, formal institutions and community enumerations(S. Patel & Carrie, 2012).

The formal institutions as described M Simbizi, Bennett, & Zevenbergen, (2014) manage and legitimatise the informal settlements. In this study, the formal institutions identified are the local authority, the NGO and The Ministry of Urban and Rural Development(MURD). The focus of the data use is on the local authority that manages and legitimise the informal settlements. The NGO offers support to the saving

groups who facilitate the community enumerations. The study assesses whether local authority does use community enumerations information, and in turn does that influence tenure security in informal settlements. Perceived and *de facto* tenure will be assessed for informal settlements, according to the tripartite model (van Gelder & Luciano, 2015), but excludes *de jure tenure* security. In addition, the process followed by the groups to achieve tenure security is assessed.

1.9. Structure of Thesis

The overall structure of the thesis takes the form of eight chapters. The thesis is arranged in the following ways:

- **Chapter One:** General Introductions: The first chapter deals with introductions to the study, specifying the research problem and the context in which the study is approached. An overview of research objectives, research questions and conceptual framework is provided.
- **Chapter Two** Tenure security and Informal Settlements: Chapter two is the first chapter by laying out the theoretical dimensions of the research and looks at tenure security concepts and how perceived and de facto tenure security can be measured for informal settlements.
- **Chapter Three:** Community enumeration and use of information: This chapter is the second part of the theoretical dimensions, it provides details on community enumerations and how data has been used by saving groups in different countries.
- **Chapter Four:** Case Description: The fourth chapter presents an in-depth background to the case study area. Giving an overview of the available datasets on the four informal settlements. This chapter works to provide a better understanding of how each settlement has a unique history and characteristics that might have an impact on tenure security.
- **Chapter Five:** Methodology: The fifth chapter is concerned with the method used in this study. It gives details on how quantitative and qualitative methods were utilised to answer the research questions and meet the study.
- **Chapter Six:** Results Chapter six presents the findings of the research based on interviews, focus group discussions, survey questionnaires undertaken during fieldwork in the second and third week of October 2017 in Gobabis. The focus of the results is on three main themes, tenure security in informal settlements using Likert scale measurements from the survey questions.
- **Chapter Seven:** Discussion This chapter ties in the theoretical and empirical components to address whether community enumerations have an impact on tenure security, by comparing informal settlement results.
- **Chapter Eight:** Conclusion and recommendations Finally, a summary and critique of the findings in the study. In addition, the recommendations focus on opportunities for the uses of community enumerations data to aid in the achievement of tenure security for informal settlement households.

1.10. Conclusion

This chapter introduces the study. The background is provided, detailing the justification for the research on the impact of community enumerations on tenure security. To meet this objective, supporting objectives and questions are listed. The next chapter explores relevant literature addressing the identified concepts for this study.

2. TENURE SECURITY AND INFORMAL SETTLEMENTS

2.1. Introduction

This section covers characteristics and causes of informal settlements and emerging of social institutions (organised groups/saving groups). When studying informal settlements with the aim of improving conditions, it is vital to study the land tenure security of residents, as it is vital for development and reduction of poverty. A land tenure system is the social relationship of people to land (FAO, 2002). As an institution, it is the rules developed by a society to regulate behaviour and use of land. Land tenure security is the certainty (FAO, 2002, p. 18), and perceptions that rights to land are recognised and protected against evictions and encroachment (Payne, 2004; van Gelder, 2007). This section summarises current literature on the causes and basic characteristics of informal settlements. Furthermore, focuses on different elements of tenure security and how the concept can be used to understand security for informal settlement occupants.

2.2. Tenure Security Definition

One of the main threats to tenure security for households is the action of governments, especially with the eviction of households in informal settlements (Rakodi & Leduka, 2002). Tenure security is understood as being a complex concept (Mahadevia, 2010). Existing literature on tenure security, focuses on measuring tenure security (Simbizi, 2016; De Souza, 1998), understanding what it is (van Gelder, 2007; van Gelder, 2010), the role of security on investments (Gabriel Luke Kiddle, 2011; Van Gelder & Luciano, 2015a) and if residents have tenure security or not (Nefise, Remy, Gora, & Clarissa, 2011). There is a consensus among researchers that tenure security is an important enabler for improvement of living conditions, as summarised by van Gelder, (2007). While the layman may think that security of tenure entails a full legal title, as spearheaded by crusaders of titling De Soto and others (van Gelder, 2010b), that is neither wrong nor right. Tenure security is important for development, residents without titles are assumed not to enjoy a high level of tenure security (van Gelder, 2010; Reerink & van Gelder, 2010b; Van Gelder, 2013). Conversely, there is an understanding that people can improve their houses in the absence of legal title, once people are confident that authorities will not disturb them (Gilbert & Ward, 1984). However, there is little if any empirical evidence to support this assumption. The following literature review provides an overview on summations on the classification of tenure security according to different researcher's perspectives.

The firstly, according to van Gelder, (2010), the Tripartite Model; tenure security is summarised into three forms; *de facto*, *de jure* and perceived; showing these are all elements of one composite concept. According to van Gelder, "what resides in the mind of the receiver is different from the facts on the ground" (van Gelder & Luciano, 2015, p. 488), *de facto* tenure deals with how land is held and used; regardless of a legal document. Therefore, tenure increases with the passage of time and through other measures such as the provision of services (van Gelder, 2010b). Hence, residents in an informal settlement who have occupied land for a longer period have a higher level of tenure security compared to those who are new occupants or are in a newer settlement who might have lower tenure security perception. The second classification is land tenures security form the legal classification, is *de jure*. This is when occupants have legal documentation, they are said to enjoy economic advantages as they can invest in their property and transfer. This view, was earlier on spearhead by tilting of land, by DeSoto and Others (van Gelder & Luciano, 2015, p. 486). While van Gelder notes, this view on legal tenure may not apply to developing

countries; where legal tenure is depicted as a matter of degree, between full property title and complete illegality.

According to Simbizi et al., (2014) past conceptualisation of land tenure security concept was reductionist in their approaches. Thus, a typology was developed, categorising land tenure security concepts into three schools of thought. The first being the economic school, where security is regarded as an individual's full ownership of land, supported by written evidence (Marie Simbizi, 2016). Moreover, Simbizi notes, the economic school is used to associate tenure security to economic outcomes, such as incentives to invest. This categorisation goes along with van Gelder's legal category (van Gelder, 2007), as they both echo documentation and legal rights (Marie Simbizi, 2016). While the second, is the legal school, where owners have legal protection and can enforce their rights. With the existence of statutory systems that manage how land rights are administered. Again, this borders along the legal form of tenure security under van Gelder's model. While the last is the adaptation school of thought; tenure security refers to the legitimacy of land rights, mostly referring to customary institutions. Comparing this to the previous categorisation, this centres around *de facto* tenure security. This model is unique, in the sense that it looks at the interaction of distinct parts of a land tenure system to measure tenure security.

One understanding echoed in the summation of tenure security in all the typologies is the owner's perception of tenure security. As, for urban poor households security of land tenure, matters more than land or home ownership (UN-Habitat, 2008b, p. 38). Occupants who have been identified to be tenure insecure, are more likely to invest less in infrastructure or improvements of their neighbourhoods, and less likely to realise their potential as workers, that affects economic development (Payne & Durand-Lasserve, 2012, p. 11). The simple categorisation by van Asperen, (2014, p. 29), of tenure security into passive and active tenure security, reflects levels in both van Gelder's model and Simbizi's.

In summary, passive tenure security is when households have a low probability of eviction but cannot acquire economic benefits from their structure or invest. Active tenure security relates to the possibility of transferring land rights, that is strongly related to the economic component of tenure security, as it relates to a landholder getting a return on investment (van Asperen, 2014, p. 29). The definitions of security and the models proposed provide a good overview of measuring tenure security.

2.3. Measuring land tenure security

Perceived tenure security is focused on how households estimate their chances of being evicted, this is derived from households owners experience with their land tenure (van Gelder & Luciano, 2015). Tenure security is said to lie on a continuum of land rights. There is not one single form of tenure security, but there are various forms. The continuum identifies eight forms of rights including; perceived tenure security, customary tenure, occupancy (*de facto*), anti-evictions, adverse possession, group tenure and registered freehold (Lemmen et al., 2015). According to Lemmen et al., (2015) the continuum consists of a diversity of land rights that exist in space and time and may overlap.

For this study perception of tenure security is based on estimates of eviction and confidence in actual control of the land and will be used to assess tenure security levels in informal settlements. Payne, Durand-Lasserve, and Rakodi, (2008) note "*perceptions are important to determine tenure security*". Understanding the perception of individuals or groups, is the reason why it is difficult to assess the nature and scale of tenure insecurity (Payne & Durand-Lasserve, 2012, p. 6). An additional aspect that may increase the perception of tenure security is, service provision and protection from eviction using anti-eviction laws (UN-Habitat, 2015, p. 3; UN-Habitat, 2003b, p. 10). Additionally, Hollingsworth, (2014, p. 24) notes that obtaining the users perspective of tenure security gives an objective and subjective view, that is essential

for measuring tenure security. Moreover, assessing tenure security, is a vital relationship between a wide range of variables such as; length of stay in settlement, category of land tenure, presence of infrastructure, prospect of getting titles, support and advocacy from civil society, continuing evictions from other settlements and perceptions of government policy that determine the level of tenure security,(Kiddle, 2010, p. 208; Nakamura, 2016, p. 161). These variables are operationalised in this study to measure the level of security for the informal settlement. Recently, Simbizi summarised tenure security according to three schools of thought, definition land tenure security as an emergent property of a land tenure system.

According to Simbizi (2016)to understand land tenure security, it is required to model a land tenure system holistically(Marie Simbizi et al., 2014); land tenure security is a function of the interaction between system elements. While this is relevant for a land regularisation programme, it might not apply to informal settlements, where land administration institutions are not fully implementing a land tenure improvement program yet. However, aspects of the model can be applied in understanding how local institutions use community enumeration information.

To Understand perspective of security, one can measure tenure security on household heads, whether they foresee themselves being evicted within the next five years (UN-Habitat, 2003a). In order for tenure security to contribute to poverty elimination the poor should be able to enjoy the bundle of rights, the right to sell and inherent; as evictions are not a good indicator of tenure security(Nefise et al., 2011). Secure tenure can also be looked at from a human rights perspective, where households have the right to protection against forced evictions (Payne & Durand-Lasserve, 2012, p. 8). Inhabitants land tenure insecurity is higher based on political, and planning and construction norms, plus market pressure for demand for land(Payne & Durand-Lasserve, 2012). This risk of eviction can be reduced by the political will of the government, political patronage, the capacity of the community to protect themselves and support from civil society, plus, recommendations from international levels (Payne & Durand-Lasserve, 2012, p. 10). In addition, UN-Habitat,(2007) proposes, security of tenure can be improved if all levels of governments accept the urban poor as equal citizens with the same rights as other urban dwellers. Therefore, for this study, to understand land tenure security levels in communities that have participated in community enumerations, *de facto* tenure security and the occupant's estimation on the probability of eviction will be measured.

2.1. Causes and Characteristics of Informal settlements

Tenure security is a vital element to improving living conditions of informal settlement residents(van Gelder & Luciano, 2015). Informal settlements are areas where residents have constructed houses without permission of a governing authority or owner of the land(van Asperen & Zevenbergen, 2007). These areas are characterized by a lack of tenure security, poor housing conditions, combined with social exclusion and inadequate water and sanitation (UN-Habitat, 2016). Occupants do not adhere to building or planning legislation(van Asperen & Zevenbergen, 2007). As a result, of no formal housing options, low-income populations are accommodated in informal settlements(Mitlin, 2014). According to Barry and Ruther, (2001,p.2), informal settlements are not static, but are continually changing, as complex, energetic social systems. The UN-Habitats definition of informal settlements/Slums was recently criticised by Arfvidsson, Simon, Oloko, and Moodley, (2017), noting the definition uses emotive language, as deprivations of informal residents equate a lack of dignity. This according to the authors, promoted an attitude of attaining targets, such as the MDGs rather than improvement of conditions; as in the case of South Africa. In an early 19th century, slum concept had negative connotations (Mitlin, 2014, p. 48). Unfortunately, authorities viewed this area as “urban anomalies” that needed to be eradicated (Friedman, Jimenez, & Mayo, 1988). During the early 2000s, informal settlement upgrading was replaced by integration, focusing on physical integration, social and judicial(Khalifa, 2015, p. 155). However, the *cities without slum* approach

aimed to reduce and improve informal settlements might have increased evictions of residents in this area (Croese, Cirolia, & Graham, 2016).

Spatially, informal settlements are irregular areas with densely build structures subject to regular change (Gevaert, Persello, Sliuzas, & Vosselman, 2016). However, Kovacic and Giampietro, (2017), caution describing informal settlements based on physical characteristics, as this may mislead policy implementation. Because, descriptions of physical attributes navigate attention away from social constructs; that explains informality and growth (ibid). While Mahabir et al., (2016), propose to consider both physical and social constructs to understand the complexities of slum.. This will provide details on what the main drivers are for people to stay in slums; therefore, providing evidence for appropriate policies (Mahabir et al., 2016). The ending of informal settlements is reliant on an inclusive legal process (van Gelder, 2010a). Informal settlements have similar characteristics across the world, the main driver for informal settlements is urbanisation.

The main cause for informal settlement development is rapid urbanisation,, population growth, poor urban governance, (Durand-Lasserve & Selod, 2007; Mahabir et al., 2016) and the high cost of housing, poor land information systems and inappropriate land tenure systems (Alemie, Bennett, & Zevenbergen, 2015). Urbanisation is related to a perception that moving from rural to urban areas will provide better economic activities (Sietchiping, 2005, p. 3). The growth of informal settlements is incited by urban dwellers who cannot afford to access housing under the formal system (Sietchiping, 2005; Kovacic & Giampietro, 2017). Moreover, according to van Gelder (2013), the reason for informality is due to failure of legal systems to provide recognition to occupants. Therefore, the emergence of a slum in a country is indicative of a failing legal system, as classifying settlements as formal and informal does not aid in dealing with the problem faced by residents, such as the lack of basic services and tenure insecurity (van Gelder, 2013).

2.2. Informal settlements in Namibia

In Namibia, land rights in informal settlements are not legally protected (Middleton, Von Carlowitz, & Becker, 2016). However, occupants have *de facto* tenure. As, they can use the land, but cannot transfer or built permanent structures. Furthermore, in cases of forced relocations or eviction threats, owners of structures can seek remedy from local courts. Therefore, I would assume residents in Namibian informal settlements rarely fear eviction, as in the study by van Gelder, (2007, p. 228), this is as a result that perceived probability and fear of eviction were found not to be an issue for households with informal tenure in Buenos Aires. Because, residents occupying a piece of land for a long duration with no disturbance (van Gelder & Luciano, 2015, p. 488) rarely fear eviction. Although a lack of complete certainty can still create generate feelings of insecurity (ibid). Therefore, might be the same in Namibia. As most of the informal settlements have been in existence since 1992. The positive aspect for informal settlement dwellers security with regards to eviction is the precedence set by the courts on prohibiting eviction without a court order (Ellinger, Odendaal, & Carlowitz, 2015). However, this only protects old occupants in informal settlements, it does not protect newcomers, those building new shacks. This was evident in a court case of the family ordered to remove their structures in *Likuma vs the City of Windhoek* (Ndeunyema, 2017). According to the court ruling, the evicted family could not prove having occupied the structure for more than three years (Ndeunyema, 2017). Compared to another case², were an owner of a structure brought a case against the municipality of Windhoek. The case ruled on appeal in the supreme court, instructed the municipality of Windhoek to reinstate the demolished shacks, because owners *had not occupied the land out of wanting to break the law, but rather out of desperation*; occupied the

² Shaanika and Others v Windhoek City Police and Others (SA35/2010) [2013] (15 July 2013)

structure for more than three years. Therefore, municipality of Windhoek was ordered to repay the owners for the demolition. However, despite this ruling, local authority administrators did not take this ruling in considerations, as Katima Mulilo Town in the northeastern part of Namibia evicted families from their homes on land the council believed was occupied illegally. After reaching no agreement with households to move, as the land was planned for development, municipality tried to evict the families by demolishing residential structures of occupants in the settlement (The Villager, 2017). This led to the intervention by local politician and locals. Consequently, a statement was issued to all local authorities by the Attorney General; *no eviction of households without a court order* should take place in Namibia. This supports G. Kiddle, (2010) who noted, an announcement made by politicians is enough to provide a perception of tenure security for informal settlement households. The only legislation dealing with evictions in Namibia is the Squatters Proclamation act 21 of 1984. However, only, section three and four were deemed to be inconsistent with the constitution by the high court (Ellinger et al., 2015): The Namibian Government (GRN) focus on land reform for the past 25 years following independence was on rural land reform. Ministry of Land Reform (MLR) implemented, registration of customary land (GIZ, 2014) and land resettlement (Werner, 2015).

To support access to tenure security in informal settlements, the Namibian Government (GRN), through the Ministry of Land Reform (MLR) have enacted the Flexible Land Tenure Act (FLTA) (Republic of Namibia, 2012) to address level of tenure insecurity for informal settlements, by providing a system for incremental improvements of tenure for people in informal settlements. Stater titles will be issued, which can later be upgraded to land hold title, and freehold, depending on the affordability of households. The FLTA has been addressed extensively in the literature, as it provides an innovative approach to tenure security for informal settlement residents in Namibia (de Vries, 2002) ((S. F. Christensen, 2004) (S. F. Christensen, 2005) (Å. Christensen, 2017)). As noted in the literature, this is a promising approach that is yet to be implemented after twenty years. However, its implementation is to date depending on the finalisation of regulations, facilitated by the Ministry of Land Reform (MLR), (Å. Christensen, 2017).

2.3. Conclusion informal settlements and tenure security

This chapter provided an overview of informal settlements and tenure security. Researchers agree that tenure security is important for development and reduction of poverty. One can measure tenure security from the perspective of occupants in informal settlements. Tenure security, without legal title can be influenced, by the length of stay in a settlement; the age of settlement, type of relationship with the local authority and availability of services (water, sanitation). The study will apply the *de facto* and perception of tenure security of households to measure tenure security. As this will provide the occupant's subjective views, that can be summarised into their level of security in the settlement. The development of informal settlements in Namibia is surged by colonial legislation, lengthy and expensive process for land acquisition. The following chapter provides an overview of the community enumerations according to literature and power of information as it is applied by saving groups in accessing security of tenure.

3. COMMUNITY ENUMERATION AND DATA USE

3.1. Introduction

Community and participatory enumerations are adopted as the same in this study. Community enumeration refers to the counting of households in informal settlements, by the occupants themselves (UN-Habitat, 2010). Data from community enumerations are shared by communities with the government to secure tenure and to be used in citywide planning (Arputham, 2016). The saving groups affiliated to the Slum/Shack Dwellers International have been collecting information in informal settlements for over three decades, with the aim of changing perspectives on informal households, promoting inclusiveness in planning and improving access to basic services such as water, sanitation facilities and tenure security. According to lead authors, the saving groups are giving solutions through the community enumerations in informal settlements. This chapter will cover a background on saving groups processes, community enumerations and the Shack Dwellers Federation of Namibia (SDFN), facilitating community enumeration. The SDFN is supported by Namibia Housing Action Group (NHAG), is the NGO.

3.2. Power of Information

The power of community enumerations is described in UN-Habitats book *Count me in: Surveying for tenure security and urban land management*, the book provides details on the use of enumerations and benefits for communities. Recently, an article by Rigon, (2017) on the *Intra-settlement politics and conflict in enumerations*, provides a descriptions on how the power of community enumerations can be misused by the elite, those with access to information; the author provides details from observations on enumerations in Kenya, and how those with no access to information are likely to lose from benefiting from enumerations outcomes. The views of Rigon, are supported by Jacobs et al., (2015), that the power of information can be challenged, when a community is divided. While information use on the institutional level can be challenged, when collection and use are not integrated into institutional structures (Davies, 1994). In its simplest form, power has been defined as the production of intended effects and triumph over others despite opposition (Overbeck, Tiedens, & Brion, 2006, p. 480). While Foucault in Ghertner, (2010) says, power cannot be used unless knowledge devices are designed, organised and put into circulation. Slum surveys were part of Delhi institutional structures for the urban government (Ghertner, 2010). However, the use of information failed to meet planning objectives for slums, due to a lack of updating and decent work ethic of surveyors (Ghertner, 2010). Later on, authorities chose to use aesthetic criteria rather than statistics to inform decisions on relocations. While, information collected by residents themselves supported the government in relocations, rather than preventing this processes (Ghertner, 2010). Patel et al., (2012) shows, how information collected by informal settlement residents has been used in negotiation for space in the city and improvement of living conditions. Appadurai, (2012) contends that, *information collection are tools for group formation*, as organised groups are able to leverage resources and engage with powerful agencies to meet development priorities.

3.3. Community enumerations Process

Saving groups facilitate this process, were residents collect data on each household in an informal settlement (Mitlin, 2014). The data focuses on information on household composition, land tenure information, and affordability. Community enumerations are accompanied by mapping, that shows locations of structures and services within an informal settlement (Beukes & Mitlin, 2014; Beukes,

2015). Town planning practitioners and communities have used the data to plan and formalise informal settlements, providing alternatives to evictions (Mitlin, 2014).

The benefit of community enumerations is that they provide an entry point for engaging community and local authority on development priorities in informal settlements (UN-Habitat, 2010; Makau et al., 2012). Additionally, to improve the understanding and spatial view of their settlements, communities use Participatory GIS (PGIS) to map their areas and enhance the visibility of settlements when negotiating for space (Beukes, 2015). Communities use PGIS to show local spatial knowledge, using user-friendly applications. This enables community decision making and support communication and community advocacy (Mccall, 2015). Data collection by federations affiliated to Slum Dwellers International (SDI) has been standardised to leverage ability and use (Beukes & Mitlin, 2014). Qualitative and quantitative data on the informal settlement is important for inclusive governance. As data collected by communities is essential to hold authorities accountable (Hachmann, Arsanjani, & Vaz, 2017).

The purpose of participatory enumerations, for communities is to know how many people are in informal settlements (Makau et al., 2012). Additionally, communities used this data to mobilise residents to form saving schemes. In the same way, negotiate with the local authority (ibid) for tenure security and use it for settlement upgrading (Muller & Mbanga, 2012). Further examples on the use of data; is either to prevent forced evictions as in the case of Old Fadama in Accra (Beukes, 2015) and Kurasini ward in Tanzania (Hooper, 2012) or in the Joe Slovo settlement in South Africa (Marais & Ntema, 2013). Additionally data collected by the community was used to upgrade informal settlements in South Africa (Barry & Rüther, 2004). Furthermore, community enumerations have been used to obtain information, help local residents get organised and empowered communities in advocating for development (UN-Habitat, 2010). The use of participatory enumeration data has led to relocation and improvement of housing for residents in El Salvador (UN, 2013), and showed feasibility of in situ-upgrading in Joe Slovo in Cape Town (S. Patel & Carrie, 2012). Additionally in South Africa, enumerations improved the delivery of state subsidies and more involvement of communities in housing and infrastructure policy (S. Patel et al., 2012, p. 18). Importantly, the efforts of communities accessing tenure security were realized in Mnazi Moja and Kwa Bulu in Kenya (Ouma et al., 2016).

Major data limitation in measuring tenure security is the availability of data on tenure security at country level (UN-Habitat, 2003, p. 109). However, in instances where data has been provided the use of the data has failed due to the dependence of local authorities on implementing organisations such as NGOs (Hachmann et al., 2017).

3.4. Stages of data collection

Data collection by the communities in informal settlements has various stages, although from experience and literature (Ouma et al., 2016), not each community follows the same process. Each process is similar to stages used by communities who implemented the Social Tenure Domain Model (STDm) to the full extent as in Uganda (Antonio, Zevenbergen, & Augustinus, 2015), without the issuing of documentation. The process; Firstly the community starts with the profiling of the settlement, that involves a local team, community leaders and the earliest occupants of the settlement (S. Patel & Carrie, 2012). Secondly, there is enumeration concurrently with the numbering of structures, that involves interviewing of household members, using structured questionnaire either paper-based or digital. Thirdly, mapping, settlement boundaries are captured using handheld Global Positioning System (GPS) device (S. Patel & Carrie, 2012) or hand-drawn maps supported by aerial images of the settlement. Household enumerations are combined with the numbering of structures and the recording of positions with either a GPS or aerial image or both. Lastly, community members from informal settlements later share the data with the entire community,

before sharing it with the local authority. Mapping is important for communities, as it has been demonstrated to stop evictions (Beukes, 2015). The result from data collection opens discussions between the community and local authority. The informal settlement community decides on the purpose of data collection based on the needs of the settlement, an outcome a similar continuum to the one below is generated to the functionalities and purpose of data collection.

3.5. Saving Groups

Saving groups consist of members in informal settlements, rented rooms and backyard structures. The members are part of a grassroots organization and are supported by a national NGO. Members collect data on their communities and collectively save funds to access tenure security (Beukes & Mitlin, 2014). The groups are affiliated to Slum/Shack Dwellers International, a network of 32 countries (SDI, 2016). Saving groups each country is supported by a Non-Governmental Organisation (NGO) for financial and technical issues. The objective of groups can include, improvement of access to basic services such as sanitation, potable water, and shelter and most importantly, security of tenure. Most saving scheme members are tenure insecure (Mitlin, 2014). Participatory enumerations form part of the arsenal of the federated saving groups to achieve tenure security. According to D'Cruz, Cadornigara, and Satterthwaite, (2014) communities collect their own data to access tenure security and prevent evictions, this in more detail in Patel et al. (2012). The strength of organisation and numbers allows communities to negotiate together with local government (Patel & Carrie, 2012). Work of saving groups has shown how low-income communities can influence the development and prevent evictions (Mitlin, 2014).

In Namibia, the Shack Dwellers Federation of Namibia (SDFN) is a CBO, with over 22 000 members (NHAG, 2017), living in rented rooms and backyard shacks in Namibia. The saving groups are organised on local, regional and national levels. Forming a network of 700 saving schemes as shown in *Appendix 2*, in 14 regions of Namibia. The groups are organised on local, network and regional level. Decisions are taken either at group level or network to national read more in Muller and Mbanga, (2012). The SDFN has rituals that help members reach objectives; daily saving, mobilisation of members, peer to peer learning and information gathering. The NHAG is the support NGO that offers technical advice to members of the federation.

3.6. Conclusion community enumerations and power of information

The use of participatory enumerations has been effective in preventing evictions. Enumerations are further used to count residents in informal settlements and prioritise development. The power of information is demonstrated by how data derived from participatory enumerations has been used by communities to access services such as water, sanitation or roads and achieve tenure security. The process followed by groups are; profiling to get a general overview of informal settlement. Participatory enumerations when collecting household level data accompanied by participatory mapping of settlement spatial features (Karanja, 2010; Chitekwe-Biti, Mudimu, Nyama, & Jera, 2012). There is a consensus among affiliates of Slum/Shack Dwellers International (SDI) that participatory data collection methods provide tenure security, although for some settlements it does not happen immediately (Patel et al., 2012b). The next chapter deals with the study area and descriptions of the informal settlements selected for this study.

4. CASE DESCRIPTION

4.1. Introduction

This section provides a description of the study area and each informal settlement selected for the study. These include; the informal settlements in Gobabis, organisations that support and use the community enumerations data and saving groups. As mentioned in chapter one, the research assumes land tenure security levels increase, once community data is shared with institutions that manage informal settlements, at various levels of government. Freedom Square is undergoing a land regularisation process as part of piloting of the Social Tenure Domain Model (STDM) for recording residents land occupation status, for the Flexible Land Tenure Systems (FLTS), while Kanaan A and B is improved with electricity in a section of the settlement, with more water taps than all the other settlements.

4.2. Selection of Study Area: Gobabis

Gobabis is located in the Omaheke region of Namibia *Figure 4:1*; the regional capital of Omaheke region, 200 km from Windhoek,. The town has a population of more than 19 000 according to the 2011 national census estimates (NSA, 2013, p. 7). The local authority is a part two municipality according to the Local Authorities Act (Republic of Namibia, 1992). The few functions of the municipality are to supply water to residents, provide and, maintain sewerage, and administer the land within its jurisdiction.

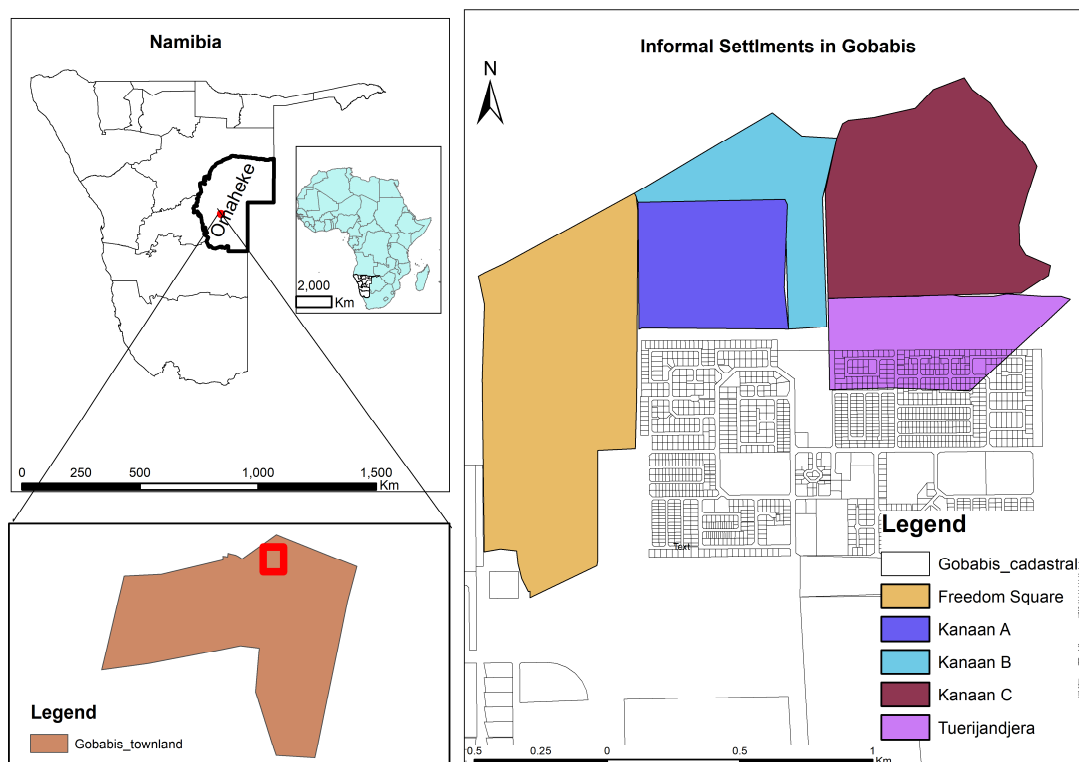


Figure 4:1 Locality map of Study area in Gobabis, Namibia

Gobabis has a population growth rate of 3.3%. More than 47 % of the inhabitants of the town live in four informal settlements according to estimation from enumerations carried out in informal settlement

communities as part of the Community Land Information Program (CLIP) in 2014. Informal Settlement residents in the town have limited access to water, no sanitation facilities, and no security of tenure. The four settlements in Gobabis are selected based on criteria such as: fully developed (Durand-Lasserve & Royston, 2013), matured-appear and evolve (Sliuzas, 2004) with existing internal cohesion, that enables populations to group themselves. The Gobabis informal settlement communities profiled and enumerated all the informal settlements in the town.

The study area was selected because all the informal settlement participated in community enumerations and can provide the researcher with the needed data for the study. Additionally, the local authority supported the community with the data collection, and a view on how the use of the data as an impact will be better sourced from officials. Furthermore, the NGO is active in this area compared to other localities in the country. Lastly, there is no ongoing research on the four informal settlements relating to tenure security and use of community enumerations.

4.3. Background on data of informal settlements community enumerations

This sub-section provides an insight into the data produced as part of community enumerations by the residents in informal settlements, based on reports (SDFN-NHAG, 2013) from NHAG-SDFN and the researchers experience working with these communities. Firstly starting with how community enumerations are carried out, followed by an overview of the socio-economic and spatial data. Plus, a brief history of each settlement. Community enumerations in Gobabis started in 2012. The data collection was supported by the municipality and the NGO. Households were numbered with a unique structure identifier and enumerated using a standard form designed by the SDFN-NHAG in collaboration with stakeholders. Community enumerators were trained on how to complete the forms by SDFN members. The mapping of the structures were completed using orthophotos from the 2011 national census obtained from National Planning Commission (NPC). The structures on orthophoto were marked and labelled with the structure number by the teams during the door to door enumerations. This were later digitised and linked to the socio-economic data. Five informal settlements were identified;

- Damara Block, now called Freedom Square,
- Owambo Block, settlement no longer exist; residents were relocated as they occupied land identified for development by the local authority.
- Kanaan A, now Kanaan A and B
- Herero Block, now called Tuerijandjera
- Kanaan C was not was not mapped in 2012 as the available aerial images from the Namibian 2011

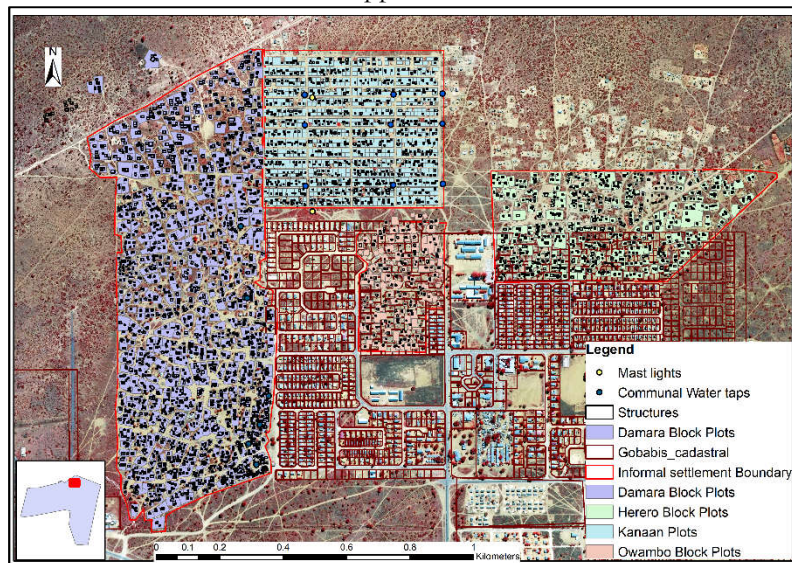


Figure 4:2 Data from 2013 enumerations and mapping

Informal settlement residents in the four settlements do not have the right to develop the land, or formally transfer. Therefore residents have informal land tenure (Nefise et al., 2011). The right to use is tacitly implied by the local authority by providing services. Each settlement has its own history of development. While Freedom Square is undergoing regularisation and in the process of receiving certificates for land occupation as part of the piloting of STDM and the Flexible Land Tenure System (FLTS), Kanaan C has started a planning process. Tuerijandjera is going through discussions with the local authority for households to move from an area already planned for residential housing by the municipality, this is clearly shown in the study area map.

Figure 4:3 shows the locations of households informal settlements collected in 2017, community data collectors marked each structure in the settlement using a GPS. By the time of obtaining this secondary data from NHAG, the enumeration forms were not digitised. The layout for freedom Square is partially formalised. The freedom Square informal settlement has been planned by the community, parcel boundaries were demarcated according to the layout approved by the local authority. The outer boundary of the settlement was surveyed by a professional land surveyor and the internal sub-divisions for the parcels were made by the community with the assistance of NHAG, using GPS and measuring tape. GPS points were collected on each household structure in Tuerijandjera, Kanaan C and Kanaan B.

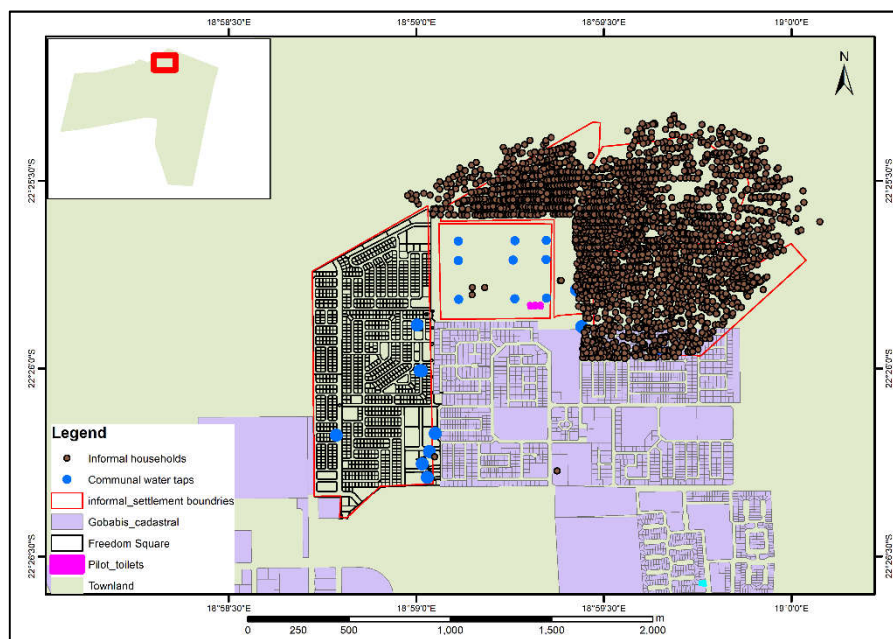


Figure 4:3: Data collected in 2017

4.3.1.1. Socio-economic

Community enumerations were carried out in Gobabis from 2012 to 2017. Household information was updated as per need. Socio-economic information collected from enumerations are able to provide an understanding of the settlement dynamics. Table 4:1 shows the summarised information derived from community data collection on the informal settlements. The development priorities are listed according to the most important.

The socio-economic information is merged with the spatial data provided by households shown in Figure 4:3. All households in the informal settlements do not have formal agreements with the municipality for the land they occupy. Only a section of the Kanaan A and B has electricity. There are two water taps for the entire community in Kanaan C, shows in Figure 4:3. According to the informal settlement profiles Table 4:1, Tuerijandjera developed earlier than the other settlements. The municipality and community are not in

agreement on the status of the settlement, as a percentage of households are settled on land that has been planned for by the local authority, and officials say, the settlement is part of Kanaan C.

Table 4:1 Informal settlement characteristics

Informal settlement	Year established	Heads of household	Population	Available services		Average income	Development Priorities		
		Totals	Total	Toilet	Water	NAD	1	2	3
Freedom Square	1994	1024	3118	0	3	1090.68	Water	Land	Toilets
Kanaan A& B	2004	1322	4324	12 ³	9	-	Land	Water	Electricity
Kanaan C	2009	1460	3016	0	2	1663.11	Water	Better housing	Electricity
Tuerijandjera	1987 ⁴	431	1355	0	3	1633.3	Water	Land	Electricity

4.4. Saving Gobabis Groups in Gobabis

There are twenty saving groups in Gobabis with a total of 747 members, which makes it 4% of the total number of members nationally as of July 2017(NHAG). According to saving groups savings reports reported nationally *Appendix 2*, only three groups achieved tenure security (group land ownership) by buying land from Gobabis municipality. The members with the informal tenure are in Freedom Square. The saving group members were mobilised as part of the enumeration process in 2013. Saving group members who have informal tenure refers members living in informal settlements and are saving, while No land refers to members who are saving, but are not from the informal settlements. While Group land ownership is those who have bought land from the local authority.

4.5. Conclusion study area

This chapter provided an overview of the case study area and the data available on informal settlement in Gobabis. The municipality supports community enumerations, in collaboration with the NHAG, the NGO that supports the SDFN. The next chapter provides the methods applied for data collection.

³ Dry toilets, currently not in use

⁴ settlement establishment is derived from settlement profiles completed by community leaders in 2015

5. METHODOLOGY

5.1. Introduction

This chapter provides a detailed overview of methods used during fieldwork. A mixed method approach was used to understand the impact of participatory enumerations on tenure security for informal settlement residents. The research was guided by the research matrix as shown in *Table 5:1*.

5.2. Research Design

Table 5:1 Research design Matrix

Research Objectives	Sub-Objectives	Research Questions	Data Sources	Techniques of Data Collection	Result
1. To assess tenure security in informal settlements that have implemented participatory enumerations		1) What is the perception of tenure security in the informal settlements? 2) Have residents experienced threats of evictions? 3) What are the settlement characteristics versus tenure security level? 4) What type of relationship exists between residents and local authority?	Local authority Literature Interviews with groups Shapefiles on settlement boundaries and points of water	Interviews Literature reviews	households perceived tenure security Map of settlement with services household's relationship with local authority % households threatened with eviction % of households who fear eviction
2. To assess the process followed by saving groups in the usage of participatory enumerations to achieve tenure security.		5) What are the goals of the community when collecting data in the settlement? 6) What are the processes followed by organised groups in generating data for tenure security in informal settlements? 7) What factors contribute to achievement of tenure security for organised groups	Existing Literature (Journal Articles, Books, Policy Documents) Group representatives	Literature Review Interviews Focus group discussions	List of Factors influencing access to tenure security. Process for generation and use of community enumeration data Description of lack of legislation
3. To assess the use of participatory enumerations data for tenure security in informal settlements by stakeholders?		8) How is the participatory enumeration data used by civil society and government (local and national)? 9) What is the role of data generators in decisions on the informal settlement? 10) What legislation or policies are available to support of Participatory enumerations data use?	Informal settlement groups Local authority MURD, SDFN - NHAG	Literature Review Semi-structured interviews	The description on the usability of participatory enumerations data for tenure security. Linkages of data use by a local authority to the attainment of tenure security. List of actors

5.3. Methods

The subsections that follow provide detailed descriptions of all the tools used for data collection, pre-and post-fieldwork. The process for research implementation as shown in *Figure 5:1*, started with the identification of a research problem, based on the researcher's experience of working with saving groups, and local authorities; coupled with topics addressed in academic coursework. The study reviewed the scientific and grey literature to understand concepts relevant to the research. This later informed the conceptual framework and research proposal. A mixed method approach was used in the collection of data during fieldwork. The mixed method approach allows the researcher to understand both the linkages between data used by officials and the tenure security levels in informal settlements that have participated in community enumerations. The qualitative approach allowed the researcher to understand how and why things happen (Gray, 2004), in this case the participatory enumerations.

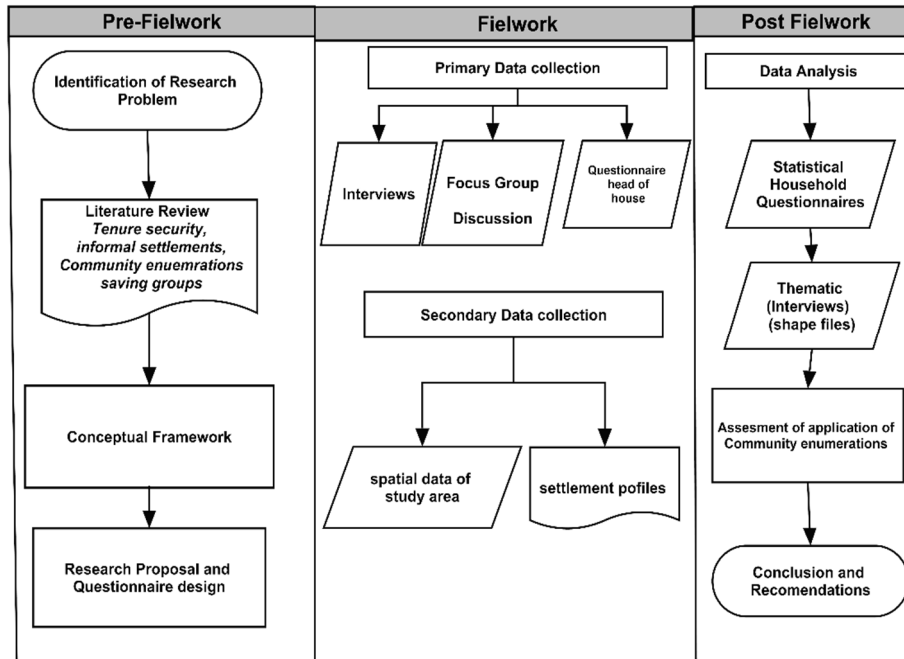


Figure 5:1 Process for research implementation

5.3.1. Pre-fieldwork

5.3.1.1. Sampling

The researcher used a simplified formula for proportions (Israel, 1992) to calculate the sample size for the study. The heads of household population figures were obtained from NHAG based on data from community enumerations in the four informal settlements in Gobabis. *Table 5:2* shows the sample sizes, where a confidence level of 95% is assumed according to *(Equation 1)*

(Equation 1)

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size,
 N = population size (4237)
 e is the level of precision

(Equation 2)

$$\frac{4237}{1 + 4237(.05)^2} = 365$$

Thus, resulting in a sample size of 365. The proportions selected from each settlement are shown in *Table 5:2*.

Table 5:2: Sample calculations per settlement

Settlement	Population	Calculated Sample Proportions	Achieved sample
Freedom Square	1024	88.	80
Kanaan A & B	1322	114	57
Kanaan C	1460	126.	91
Tuerijandjera	431	38	26
Total	4243	365	254

5.3.2. Fieldwork

5.3.2.1. Focus Groups Discussion

To meet objective two on assessing the process of saving groups in achieving tenure security, two focus group discussion was held. Purposive sampling was used, this was to select a sub-group within a population (Flyvbjerg, 2006). The researcher deliberately selects respondents against a specific trait, that will be representative (Gray, 2004, p. 87). Focus group discussion was held with members from saving groups, in Gobabis, who have achieved tenure security and those who are still waiting. Another reason for purposive sampling is that individuals were selected because they have experience for the theme under investigation (Rosenthal, 2016, p. 511). The objective of using focus groups was to assess the process used for generating data by the community to achieve tenure security. According to Bryman, (2012), focus group discussions enable participants to respond to each other's views and interact about how they feel about a certain topic. The researcher first identified the regional facilitator and who in turn identified other participants from different saving groups to join, only six members took part in the discussion.

5.3.2.2. Semi-structured Interviews

The researcher interviewed eight officials that have knowledge of community enumerations, from the Gobabis municipality, Namibia Housing Action Group (NHAG), and one official from Ministry of Urban and Rural Development (MURD). NHAG and MURD interviews took place in Windhoek, interview guide is attached in *Appendix 7*. While interviews with officials took place in Gobabis at Municipal offices. Purposive sampling was used to identify the professionals for the interviews. This method is the first stage of the sampling process, according to Bryman, (2012, p. 418), it allows the researcher to sample officials with knowledge of the area of focus. According to Myers and Newman, (2007, p. 24), this method of interviewing provides the chance for participants to reveal more during the questioning, that may lead to data being gathered of a greater quality and quantity.

5.3.2.3. Questionnaires-Structured Surveys

The study covered 254 questionnaires to measure the level of tenure security in the informal settlements; this makes it only 70 % of the calculated sample. Households were surveyed using a pre-set questionnaire (*Appendix 6*). Each head of household was surveyed at their structure, as shown in *Appendix 3*. Tenure security was operationalized as perceived and *de facto* according to van Gelder, as elements of a composite. Household were requested to select from statements on a five-point Likert scale, as this was selected as suitable for measuring intensity of feelings regarding the selected variables (Bryman, 2012). using an estimation of eviction and confidence on *de facto* variables. The *de facto* variables were based on statements in confidence; ability to sell their house, plans to stay in the settlement for five years or more, building a permanent house, and being able to bequeath structure to heirs. Collection of the data took place from the 9th to the 20th of October 2017 in Gobabis. *Appendix 4* provides a summary of the respondent's information per settlement.

5.4. Method of Analysis

Survey questionnaire were analysed using descriptive statistics. While semi-structured interviews focus groups discussion were analysed by identifying common themes. Thematic analysis allows the researcher to extract the key themes in the qualitative data (Bryman, 2012, p. 717). The data generated from the focus group was used to design the process flow and the continuum of purpose and functionalities of generating data. I used Spearman correlation coefficient (Equation 3) and descriptive statistics to understand the relationship between perception of tenure security of households in informal settlements and *de facto* tenure security, coupled with the perception of the use of the data. The Statistical Package for the Social Sciences (SPSS) was used for analysis. This Spearman correlation coefficient (Equation 3) was used to calculate the relationship between variables (Gray, 2004).

(Equation 3)

$$\rho = 1 - \frac{6 \sum d_i^2}{n(n^2 - 1)}$$

Where ρ is spearman correlation coefficient

d is the difference between the two ranks of observations

n is the number of observations

5.5. Ethical considerations

Before starting with fieldwork, I first negotiated access to respondents (Gray, 2004) via the local authority, the Non-Governmental Organisation (NGO) heads and saving group representatives. This was completed by sending a letter informing organizations relevant for the study on the objectives of the research and the identified sample. The researcher informed the local authority, before collecting the household level surveys, and briefed occupants on the purpose of the data collection. The researcher further informed, respondents on confidentiality, both for households, and officials from the local authority, NHAG, Ministry of Urban and Rural Development.

5.5.1. Researcher Positionality

According to (Bryman, 2012) gaining access to respondents can be a political process, with the presence of gatekeepers. As respondents will want to know what the research impact may be in the organization. The relationship of the researcher to respondents may bring the light of their research bias. My identity in collecting data was that of a researcher external from the stakeholders involved in the collection and use of participatory enumerations. Although I have worked with the officials from the NGO and municipality in the past.

5.6. Limitation in Data collection

The total calculated sample could not be completed due to limited time. Thus, interpretation of results from some settlements like Tuerijandjera, limits making inferences on the population. In analyzing the use of the data by the Ministry of Urban and Rural Development, only few one official was available, as opposed to the identified officials who the researcher knew had knowledge about community enumerations and the use the data.

5.7. Conclusion

A Mixed-method approached was used for the research, 245 informal settlement households were interviewed using survey questionnaires. Eight professionals from Gobabis Municipality, NHAG and one from the Ministry of Urban and Rural development were interviewed. While two focus group discussions were held with saving group representatives in Gobabis and SDFN national facilitators in Windhoek.

6. RESULTS

This chapter sets out results collected from semi-structured, focus group discussion and household surveys collected during fieldwork in Namibia. The first set of results are derived from household's survey information in informal settlements focusing on tenure security, based on perceptions of fear of eviction and confidence in *de facto* variables for tenure security. Last part of the first section focuses on the relationship between variables used in measuring tenure security, and explores whether there is a difference between the thinking state and feeling state of occupants towards tenure security. The second section supports, the tenure security perceptions of households, by focusing on the process followed by saving groups, on group level and informal settlements level, in the group's quest to achieve tenure security. The final sections, provides the views of officials, mainly from the local authority on the use of community enumeration data, and the inclusion of community data generators in decision making in their communities. Each section ends with a summary of the results. The last section of the chapter provides a summary of results.

6.1. Sub-objective one: Tenure security of households in informal settlements that have implemented participatory enumerations.

Results are derived from household surveys in the four informal settlements (Tuerijandjera, Kanaan A and B, Tuerijandjera and Kanaan C). The first set of questions focus on whether residents in the settlement have faced evictions threats or not, followed by the household's estimation on the probability of facing evictions, using households thinking and feeling perceptions. Additionally, the level of confidence in *de facto tenure* security of households is presented. To support tenure security measurements, the relationship between the community and local authority was analyzed, with supporting feedback from semi-structured interviews with officials at the Gobabis municipality officials; this is interpreted as patronage from officials and councillors and shows tacit approval for occupants to continue staying on the land. This section ends with a test of an existing association between the variables measured using Spearman correlation coefficient as mentioned in the methods section(5.4).

6.1.1. Have residents experienced threats of evictions?

Majority of residents did not face any evictions within the last five years, as shown in *Table 6:1* only, four people in Tuerijandjera faced eviction threats. This might be attributed to the municipality's announcement, that some residents need to move off the land, as it is already planned for formal residential housing.

Table 6:1 Residents who faced evictions

		Yes		No	
		%	Count	%	Count
Settlement Name	Freedom Square	0.0%	0	100.0%	80
	Kanaan A & B	0.0%	0	100.0%	57
	Kanaan C	2.2%	2	97.8%	89
	Tuerijandjera	15.4%	4	84.6%	22
	Total	2.4%	6	97.6%	248

The results support studies that residents in informal settlements only face probable evictions if the land is needed for other development or due to market pressures (du Plessis, 2005). The small number of eviction threats in Tuerijandjera can also be due to the small sample collected, that is a limitation of the study. A bigger sample might have produced a larger number. The results show a positive aspect of the security of tenure for the majority of households due to non-disturbance. However, according to (UN-Habitat, 2016b), the fear of eviction alone cannot be a determinant of level of tenure security on its own, therefore the next section focuses on tenure security based on probability estimation for eviction by households, followed by resident's comfort levels in *de facto* tenure security variables common in literature.

6.1.2. Perception of tenure security

The psychological dimension of measuring tenure security according to van Gelder measures thinking and feeling the state of occupants regarding the estimation of the probability of eviction. The differences in the variables are questions measure feeling, 'fear that someone will try to evict us is present and eviction worries me'. While thinking state measured the possibility of eviction: 'fear that we will be evicted is present and it is possible the municipality will evict us'. For this study, four statements were posed; (1) possibility of eviction worries me (2) the fear that someone will try to evict us out is present, (3) possibility that we will be evicted from this settlement is present (4) It is possible that the municipality will try to evict us in the future. Each household selected a response from a five-point Likert scale on the level of worry; Very much, somewhat, neutral, not really and not at all.

It is apparent from the Likert scale data that Freedom Square informal settlement respondents (Figure 6:2) are the least afraid of eviction compared to the other three settlements, with the majority selecting not at all for the level of worry (70%). The main reasons given, is the recordation of their names in the computer and that they have planned for the land themselves, as one respondent said, "My name is in the computer at the municipal office" this is about the household information collected as part of the community enumerations. However, despite the majority not worrying about eviction threats, the few (17.5 %) respondents voiced concern over a lack of proof of ownership, as another respondent said, "we do not have ownership of the land, we need a certificate that proves this land is ours". While Tuerijandjera respondents are most worried about eviction, at 54 % as shown in Figure 6:1,. The respondents indicated to be worried by the possibility of eviction. Respondents on the level of worry said, "we have no permission to build here". Another respondent who is not worried said, "I stayed here for a long time", which can translate to no fear due to the length of stay in the settlement. Overall, Kanaan C has a low to medium worry over eviction threats.

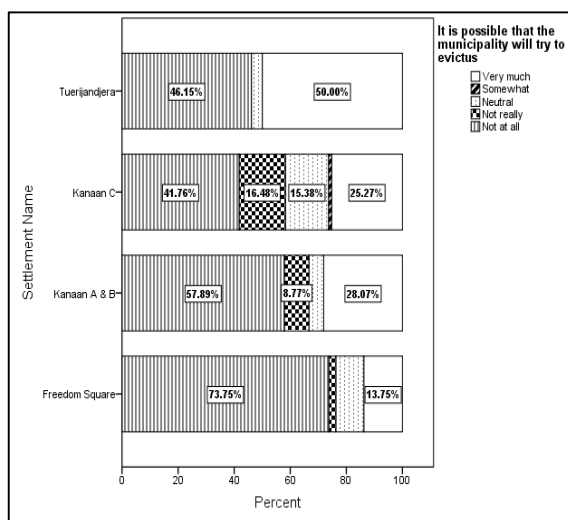


Figure 6:2 Thinking on Fear of eviction by municipality

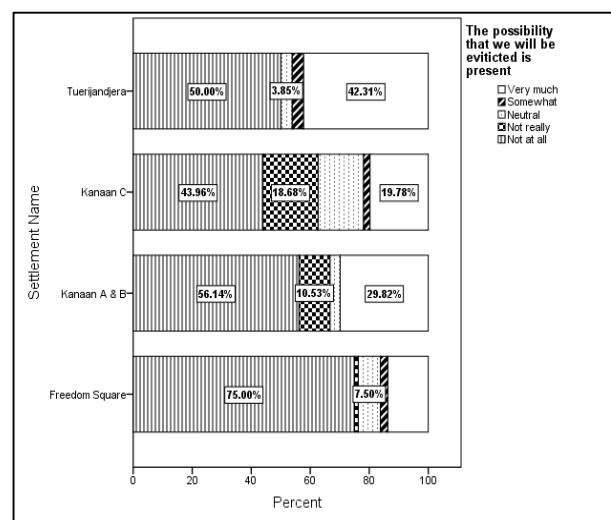


Figure 6:1 Thinking Fear of eviction from other sources besides municipality

This might be attributed to heads of households waiting for land occupation certificates and the recent land regularisation. While Tuerijandjera has the highest level of worry in terms of fear of eviction when combining all the responses. Reasons for Tuerijandjera levels of fear, an explanation for this; is residents were informed by the local authority for the possibility of relocation. Considering that only four respondents from the previous question fear eviction, this supports the findings in Figure 6:1, although residents were not threatened with eviction, the possibility that other residents in the settlements were can be a reason. While Kanaan A & B (Figure 6:4), was expected to have low levels of fear of eviction from amongst all the settlements, as it was planned for by the municipality and has the highest number of water taps, is shown to have a higher level of fear of probability of eviction compared to Freedom Square. As most of the respondents for eviction worry is 49 % as shown in Figure 6:4 for households compared to Freedom Square at 74 %.

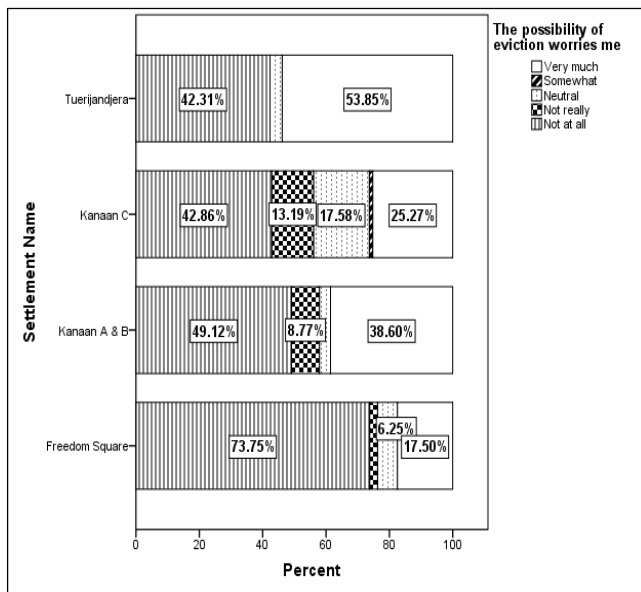


Figure 6:4 Feeling: General Worries on possible eviction

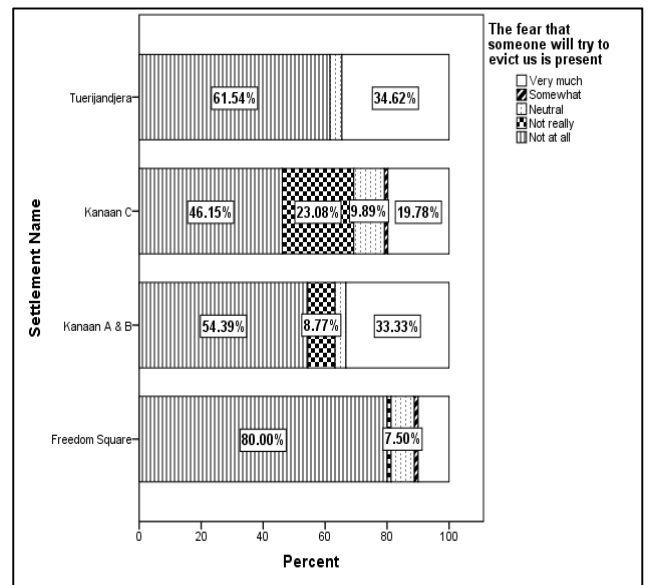


Figure 6:3: Feeling: Worries on eviction threats from other people

The reason for fear by occupants is attributed to a lack of ownership certificates, although residents are registered at the local authority, none of them have proof of rental or ownership certificates for the land. This is different from Freedom Square residents who are expecting to receive ownership certificates as part of the piloting of STD. Kanaan C occupants have the highest level of uncertainty for the probability of eviction. Respondents selected the most neutral and not really compared to the other three settlements. This can be attributed to the settlement being the last to be established amongst the four as indicated in the literature, that age of the settlement can have a bearing on tenure security. Some respondents said, “We are not registered here, this is not our land”, while another said “I have rights here, I cleared this land myself” those who feel and think eviction is possible attribute it to them not being registered or given permission, while others feel the municipality will only shift them into rows and not evict them, which is attributed to recent participatory planning that took place in the settlement, with the municipality, SDFN and the Namibia University of Science and Technology (NUST).

There is an ongoing assumption in the literature that *de facto* variables can contribute to tenure security. This was tested in this study to measure respondents level of confidence with statements on *de facto* tenure variables and thus have an overall view of tenure security. This is presented in the next section.

6.1.3. Confidence in *de facto* Tenure Security

To add to understanding tenure security, households were asked on their level of confidence in variables always considered to contribute to *de facto* tenure security in informal settlements. These like the preceding questions, households were asked to select level of confidence based on four statements (1) I won't experience problems from the municipality if I build, (2) my Children will be able to inherit this structure (3) I feel I can sell this house to anyone without a problem, (4) I will stay in this structure for the next five years or more. Most respondents (Figure 6:5) did not select confidence level in selling their house, rather said they will not sell their house. This was similar across all settlements, even after explaining the question and giving a scenario if they had to move out of town due to other opportunities. The highest response (69%) for won't sell coming from households in Tuerijandjera.

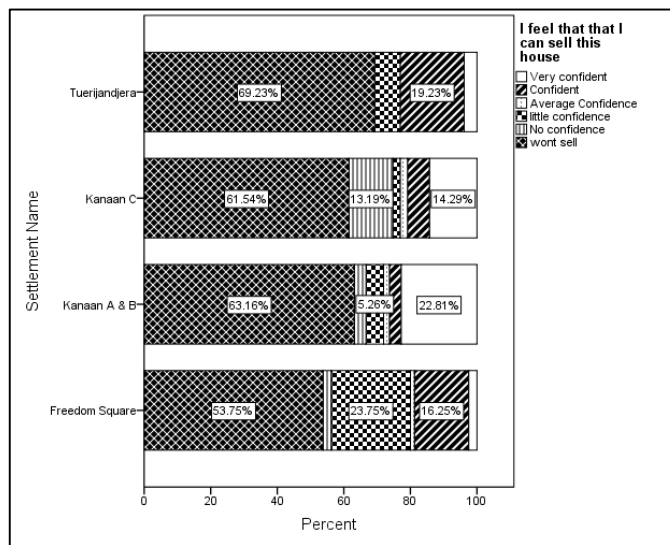


Figure 6:5 I feel I can sell this house

The reason for the household's response in Figure 6:5, according to the explanations given by respondents, is that, the structure they currently occupy is their only house and them have nowhere else to go if they sell. Furthermore, some said, they will be leaving the house to their children, therefore selling is not a possibility for them. Residents in informal settlements in Namibia are not allowed to build permanent structures, as residents do not have legal ownership of the land. All respondents interviewed are cognisant of this. This was confirmed by the response in Figure 6:6 "won't experience problems if I build a permanent structure" by households interviewed. Respondents that selected confident to very confident levels to build also said that they will need permission to do so, while others said if finance is available they will build permanent structures only with permission from the municipality.

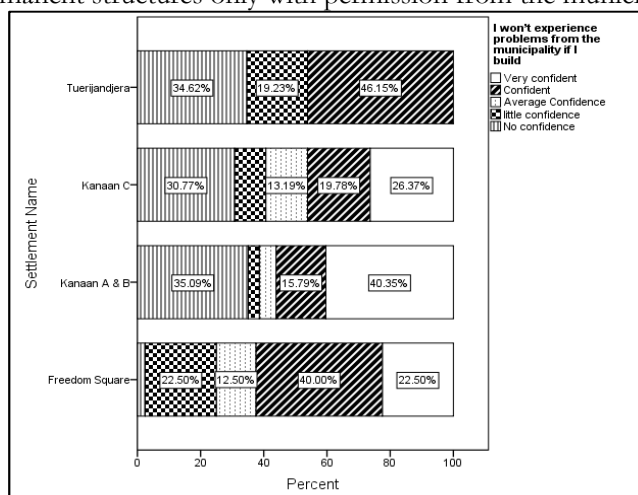


Figure 6:6 Wont experience problems if building permanent structure

This translates to a low level of tenure security; however, this is indicative of the resident's adherence to local authority's legislation. Most of the respondents from all the settlements have plans to stay in the settlement for the next five years and are confident the children can inherit as shown in all the figures below (Figure 6:8). As shown in Figure 6:7 majority of the respondents feel confident in bequeathing their structure to their children or relatives. This is an important indicator of how secure households feel towards the security of tenure. The responses given here, were in accordance with the structure/house and not necessarily the land.

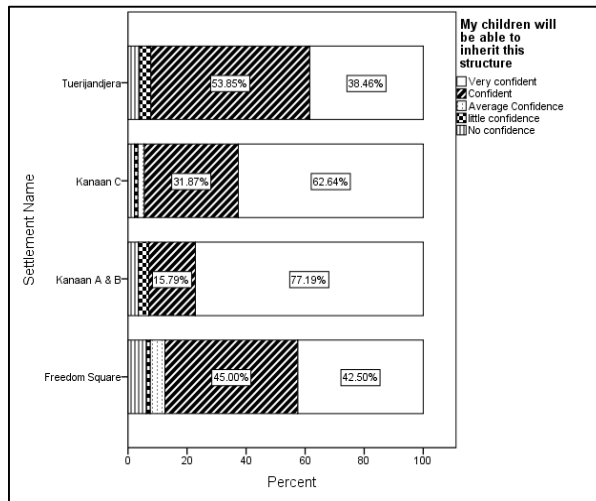


Figure 6:8 plans to stay in settlement

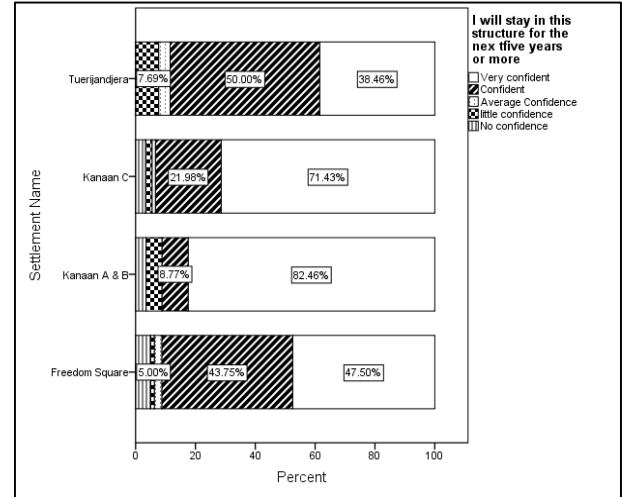


Figure 6:7 Children can inherit the structure

In summary, residents in Freedom Square have the highest level of tenure security when combining estimation on eviction and confidence in *de facto* attributes for tenure security. While Tuerijandjera residents have the lowest level of tenure security, this can be attributed to municipals for relocation.

6.1.4. What type of relationship exists between residents and local authority?

Figure 6:10 show most respondents across all settlements agree that the municipality officials and councillors attend meetings and they can freely talk to officials. This is suggestive of the local authorities approval and communication with informal settlement residents, supporting tacit approval by the municipality for residents to stay in the settlement. Figure 6:9 shows that the local authority communicates to the community through community leaders. Kanaan C, had the highest level of disagreement at 22% of respondents. This might be due

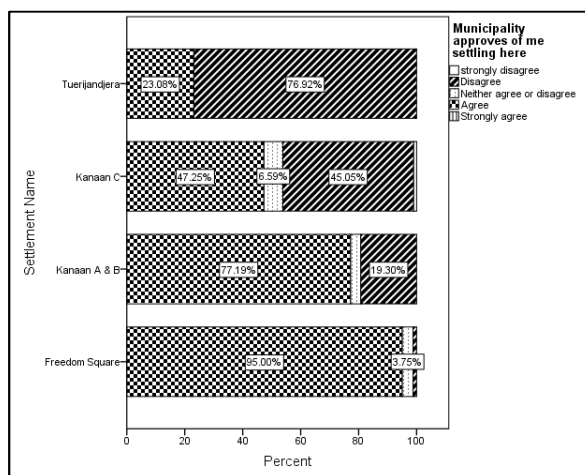


Figure 6:10 municipality approves of me settling here

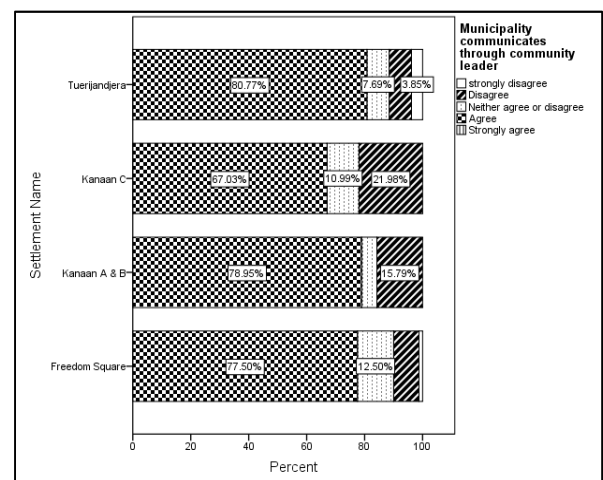


Figure 6:9 municipality communicates through community leaders

It is worthwhile to note, with the relationship between residents and local authority being fair, it is an opportunity for the relationship to improve to good. As shown in *Figure 6:10* most residents in Tuerijandjera (76.92%) and Kanaan C (45%) disagreed on the statement that the municipality gave them permission to settle there, while residents in Freedom Square and Kanaan A and B had higher levels of responses; as one respondent from Tuerijandjera said “*we gave this land to ourselves. There is no proper plan. Only one councillor attends the meetings.* Another respondent in said, “*officials don’t allow us to talk to them.*” Kanaan C community does not have community leaders from within the settlement, but relay on leaders from Kanaan A& B, this is reflected in their responses in *Figure 6:9*.

In summary, the relationship with the local authority and the community are good according to the level of agreement on municipalities approval and the attendance of community meetings. Tuerijandjera informal settlements are the one with the highest level of disagreement with the municipality giving them permission, this is further reflected in preceding questions on tenure security, as the settlement had the lowest level of tenure security perception. Freedom Square residents have the highest level of agreement followed by Kanaan A & B, while Kanaan C residents are also in disagreement at 45 %. Kanaan C had a recent planning studio with the Namibia University of Science and Technology(NUST), this gave the 47.25 percent of the residents a sense of approval from the municipality for occupying the area. While residents in Kanaan A & B agree because the names of households are recorded with the local authority and the settlement was initially set up by the local authority after relocation.

According to the conceptual framework, the municipality gives residents the permission to stay on the land, this can either be through a formal agreement or through tacit agreement. Measuring relationship gives clarity to the reasons for the perception of tenure security based on *de facto* and estimation of the probability of eviction. Level of municipal support with services per settlement is visible in the next section, looking at settlement characteristics.

6.1.5. What are the settlement characteristics versus tenure security level?

According to literature(Durand-Lasserve, 2006) settlements with the biggest size, organization and services are likely to have the highest level of tenure security or legitimacy. As shown in *Figure 6:11* the earlier sections, Freedom Square is the biggest of the four settlements and residents have a higher perception of tenure security, compared to all the other three.



Figure 6:11 Water taps and informal settlement size

However, there are fewer services in Freedom Square than Kanaan And B. While, Tuerijandjera is the oldest settlement with fewer services, but part of the settlement is located on municipal planned land for formal residential. All informal settlements are built with temporary materials (corrugated iron sheets) as shown in *Figure 6:13*. There are seven mast lights in all the informal settlements, two in Freedom Square, two in Kanaan A and B, two in Kanaan C and one in Tuerijandjera. As shown in section

Size of settlement can play a role in advancing community priorities, Freedom Square households used community enumerations to avoid relocations, plan for the settlement themselves and source support to install services(*Figure 6:15*) in partnership with the Municipality, NGO and MURD, more details of this in the next section. The residents in all the settlements do not have access to sanitation facilities and the majority use the bush. Although, there are ten pit latrine toilets in Kanaan A, these toilets are not in use. Available services(water) *Figure 6:12* in this study do not play a significant role in the perception of tenure security. As shown in *Figure 6:12*, most residents must wait in line for water at any of the water points closer to their houses.



Figure 6:13 common building material for structures and electrical line for Kanaan A



Figure 6:12 Communal water tap

Residents in all the informal settlements have fenced the boundaries to their parcels. Freedom Square and Kanaan A boundaries were measured and demarcated with help, the first from the municipality, the later by the NGO as part of the piloting of STDN for Flexible Land Tenure. While Tuerijandjera, Kanaan C boundaries were self-made by the households.



Figure 6:15 manholes in Freedom Square



Figure 6:14 Households fenced off parcels

Permission to construct a structure in the settlement has an impact on tenure security perception of households. As households in Freedom Square and Kanaan A, were guided directly and indirectly by the municipality on the size of parcels, might influence tenure perception, compared to Tuerijandjera and Kanaan C. The next section focuses on whether the variables measuring perception of tenure security have a relationship.

6.1.6. Testing correlation between tenure security variables

All the variables used to measure the perceived probability of eviction, fear of eviction and confidence in *de facto* tenure security were analyzed to explore if there is a correlation or not. As shown in Table 6:2 there is a significant correlation between the majority of the variables at $P < 0.01$. Fear of Eviction and perceived probability of eviction have a strong positive correlation. This suggests that, respondents did not see a difference between questions about their feeling and thinking towards eviction threats. However, perceived probability of eviction and fear of eviction both have a weak negative correlation to confidence level in *de facto* tenure security. This implies that the higher the perceived fear and probability of being evicted the lower the confidence in *de facto* tenure security. The correlation of confidence in *de facto* tenure security and informal settlement relationship with the municipality is an at a weak negative correlation. This suggests, that respondents who perceived the relationship with the municipality to be bad had a lower confidence in *de facto* tenure security.

Table 6:2 descriptive spearman correlation to test the relationship between variables: (1) confidence in *de facto* tenure security (2) perceived probability of eviction (3), fear of eviction (4), length of stay in the settlement (5), perception of informal settlement relationship with municipality (6), perception of data use (N=254).

Variables	1	2	3	4	5	6
Mean	1.783	3.713	3.689	8.02	3.260	3.083
Standard Deviation	.7880	1.6054	1.5860	2.873	.6796	.7525
1. confidence of <i>de facto</i> Tenure Security						
2. Perceived Probability of eviction	-.187**					
3. Fear of Eviction	-.134*	.764**				
4. Length of stay in settlement	.046	.179**	.251**			
5. Informal settlements Relationship with Municipality	-.150*	.235**	.315**	.086		
6. Perception of Data Use	-.085	.196**	.200**	.050	.192**	

** $p < 0.01$, * $p < 0.05$

6.1.7. Summary of sub-objective one- levels of Tenure Security

Majority of respondents from all the four settlements did not experience any eviction threats within the last five years. Measuring perception of tenure security using estimation for the probability of eviction by households in informal settlements showed a majority of respondents have a high perception of tenure security. Freedom Square resident's perception of tenure security is higher compared to all the other settlements. This shows that completing community enumeration process and implementing plans has an effect on the perception of tenure. This is not surprising community members are awaiting receiving land occupation certificates. As expected, residents in Tuerijandjera have a lower perception of tenure security. This low level of perception of tenure is also linked to the respondent's relationship with the municipality, which according to the Likert scale statement selections, showed to be very poor. The main statement that stood out compared to other settlements is, that residents said the municipality did not give them permission to residents to occupy the settlement. In addition, a number of households are occupying land already planned for formal residential housing and have been informed of this by the municipality. Estimation of probability to be evicted was not the only measure of perception of tenure security. The study used confidence level in *de facto* tenure security variables. Majority of households are confident that

they will stay in the settlement for the next five years and will be able to bequeath their structures to heirs. However, many could not select confidence level based on the ability to sell one's structure. This could be because of the head of household's responsibility to children, as many said, they will give the structure to their children. Additionally, respondents said, they cannot sell, as this is the only house they own. There was no major difference between the thinking and feeling state towards the probability of eviction. Although, in the case of Tuerijandjera, it highlighted the level of worry, feeling state, as opposed to their thinking state, that many households felt they will not be evicted yet felt worried about the possibility of eviction.

6.2. Sub-objective two: To assess the process followed by saving groups in the usage of participatory enumerations to achieve tenure security.

The second objective focuses on the process followed by saving groups on the use of enumeration data for tenure security. Firstly dealing with the results on the goals for collecting data, secondly the examples on the processes assessed using Unified Modelling Language (UML) diagrams, depicting the process followed by saving groups in general and specific to community enumeration implemented in Freedom Square . Lastly, factors that contribute to the achievement of tenure security for saving groups sd listed by officials at NHAG, focus group discussion with SDFN members, plus emerging challenges.

6.2.1. What are the goals of community when collecting data in the settlement?

To understand the reasons why communities carry out enumerations, a continuum was drawn, with the structure adopted from UN-Habitat-GLTN continuum of land rights. *Figure 6:16* shows the *continuum of data generation and use* drawn based on themes that emerged firstly from literature and focus group discussion with the saving group representatives . The reasons for goals for enumerations are divided into two parts, firstly purpose, that shows when communities enumerate to count, mobilise members into saving groups, and mapping of services, the community is most likely tenure insecure. The second level shows,that we communities use the data to prevent evictions, participatory mapping, upgrading of the informal settlements and negotiation, the settlement is likely to have a higher level of tenure security.

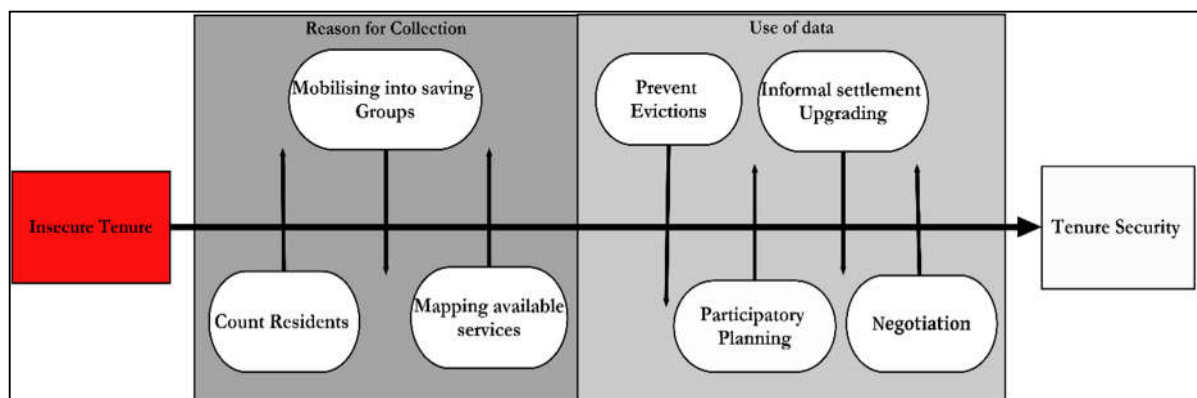


Figure 6:16 Continuum of data generation and use (structure adapted from the Land rights continuum UN-Habitat 2008)

Each showing the two levels of interaction and use of community enumeration. With the overall objective to achieve tenure security, either on a group or informal settlement community level. The first level, deals with the collecting of information within the community. Main actors in this are the saving group facilitators, and the community volunteers who collect the data. The second level, deals with the use and sharing of data with stakeholders, who in the end offer assistance to communities in meeting community enumeration goals. The main actors are the, NGO, local authority, academic institutions, and central government. To clearly illustrate the stages of community enumerations and components thereof, the

results were placed on a continuum *Figure 6:16*; a continuum is “something that changes in character gradually or in very slide stages without any clear dividing points”(Cambridge Dictionary, 2018). The arrows for each stage on the refers to an individual activity that takes place. The horizontal arrow pointing to the tenure security on the right shows how activities are linked. Each stage on the continuum shows a community is closer to tenure security, in the form of land ownership or formal permission to occupy the land without the possibility for eviction from the local authority. Each stage is explained below:

- **Count of Residents in informal settlements:** The first data collection in Namibia for informal settlements started with profiling. Later, community enumerations involved communities in informal settlements. The purpose was to provide local authorities and communities with information on the demand and need for housing. This was also reflected by Hatago saving group members in the focus group discussion as one participant said, *“The municipality did not know how many people were in the informal settlements, our group with the help of the youth collected information and gave to the municipality”* 09:10:2017.
- **Mobilising into saving Groups:** The federation uses the enumeration process to mobilize more members in informal settlements to start saving. Usually during data collection, facilitators share their experiences and benefits of saving. Community members who are interested are supported to start their own saving groups. Freedom Square residents were mobilized to start saving groups in 2013, as part of the community enumerations.
- **Prevent Evictions:** This was not found as a goal of participatory enumerations, it did appear from discussions. Residents in Freedom Square were under threat of evictions in 2012, after the participatory enumerations, local authority decided to let them stay in the settlement and carry out participatory planning.
- **Participatory Planning:** Once data is shared with the local authorities and stakeholders; planning is started. An example of this is, the participatory layout design for Freedom square designed in 2014 and design of a layout for Kanaan C in 2017. According to an official at Gobabis municipality, the layout of Freedom Square is not yet formal according to planning regulations. Although residents have already moved into demarcated parcels. As it is being finalized for submission to the Namibia Planning Advisory Board (NAMPAB)for township establishment.
- **Informal settlement upgrading:** according to the federation and the NHAG data collected is also used for informal settlement upgrading. As the information on available services and affordability of the residents can be used to prioritize development according to community needs. The mapping of available services gives a visual for the community and local authority, showing where services can be extended to and coverage.
- **Land Negotiation:** The SDFN presents data on the income and affordability of members for land negotiation. They use data on savings and membership on a group level. This is still an ongoing negotiation on settlement level. As the local authority and SDFN-NHAG are discussing the pricing of the land for households in Freedom Square.

Each settlement in the study implemented steps on the continuum; Freedom Square has gone through most of the stages. The last stage is a land negotiation, that will focus on reaching an agreement with the local authority on land registration, using the Flexible Land Tenure Act. Additionally, deciding on the price of land for households or groups within the settlement. Thus, residents are closer to formal recognition of their land rights. Similarly, Kanaan C started informal settlement participatory planning, after the counting of residents in 2017. The process included all the remaining settlements besides, Kanaan A& B, as part of citywide planning. Kanaan A and B, counted residents, the participatory planning

stage could not apply to this settlement, as the area was already designed and planned for by the municipality. What is next, island negotiation. As respondents from the settlement have concerns over the lack of proof for occupying the land from the local authority, besides their names being on the record. Compared to Tuerijandjera, information on their involvement in the process was limited.

The next subsection will deal with the practical steps followed by saving groups in the implementation of data collection and mobilizing of members to buy land. The process will highlight the practical implementation of each step on the continuum.

6.2.2. What processes are followed by organised groups in generating data for tenure security in informal settlements?

In this section, the process of achieving tenure security (land ownership) using community enumerations will be described. The actors in this process as shown in *Figure 6:17* are the Shack Dwellers Federation of Namibia (SDFN)-Namibia Housing Action Group (NHAG) and Gobabis municipality. NHAG supports all the administrative and technical process of the SDFN. They offer ongoing support to all groups in the 14 regions of Namibia. Informal settlements, backyarders or renters, refers to any community or individuals that are not part of saving groups yet. Local Authority refers to the village councils, town councils and municipalities that own and manage land according to their jurisdictions, as specified in part one of the Local Authorities Act, 23 of 1992 (Republic of Namibia, 1992). *Figure 6:17* shows the summarised steps of achieving tenure security (land ownership) for SDFN saving groups.

The SDFN process for tenure security is not linear, here researcher mapped the main steps, as per focus group discussion and feedback from NHAG and saving groups information. *Figure 6:17* shows the steps followed by saving groups in facilitating data collection to help members in communities, rental rooms or backyard squatters who are tenure insecure. In the activity diagram, the already established saving groups are identified as the SDFN, they offer assistance as the CBO.

Figure 6:17 shows the SDFN general process for achieving tenure security, in the form of buying land for house construction from the local authority. The SDFN source Administrative support from NHAG. Assistance is provided to the groups when they start to mobilize other communities. If the mobilisation is on a group level, potential members are invited to join. However, if it is on a community level, the local authority is informed of the SDFN intentions. Local authority acknowledges the SDFN, and informs community if required. Once the process is started, the SDFN **mobilize communities** into saving groups, this is usually by sharing their experiences with savings and the benefits of the process. SDFN **facilitates learning exchanges**, this to aid members who are interested to better understand the organisation. Occupants of informal settlement or backyarders **form saving group** once they understand that saving as a group will be beneficial to them. There is continuous learning about the operations of the SDFN from older members. **Community enumerations**, and mapping are started if a community identifies the need for the process. New members who are mobilised start their daily savings⁵, based on their needs. Following the savings and depending on the maturity of the group, members make an application for land. NHAG supports the process by giving technical assistance and advice. The municipality reviews the application, based on the availability of the land. The application is either approved or denied. If the application is not approved members carry on saving and lodging another application. When approved, members negotiate for conditions to develop the land and the purchase price. NHAG supports the members by submitting layout designs in the instance identified piece of land was not planned and designed for residential purposes. Further is provided to the groups through their own fund, called the Twanagana loan fund.. Through a council resolution, local authority approves the

⁵ For this thesis, the savings emphasised are for buying land

sale of the land or donation. NHAG files the **sales agreement** and continues aiding other groups or communities to buy land. The speed of this process is different per group and local authority.

The relationship and political will of the local authority to support groups plays a role in the successful acquisition of land. This implies that if the local authority is not receptive to the group's process and group land ownership, council approval of a land application usually takes longer. According to a respondent from NHAG on a follow-up interview on challenges, respondent said, *"Like in the situation of the city of Windhoek they have not developed the land. I think they are not prepared to work with the communities as co-producers of developing the land. They Have not opened to the opportunity to work with people. They take control of the whole process themselves, in the sense that if you contribute something we contribute too than we can move. Currently it is being rigidly controlled through individual land ownership"* via Skype-09-11-2017

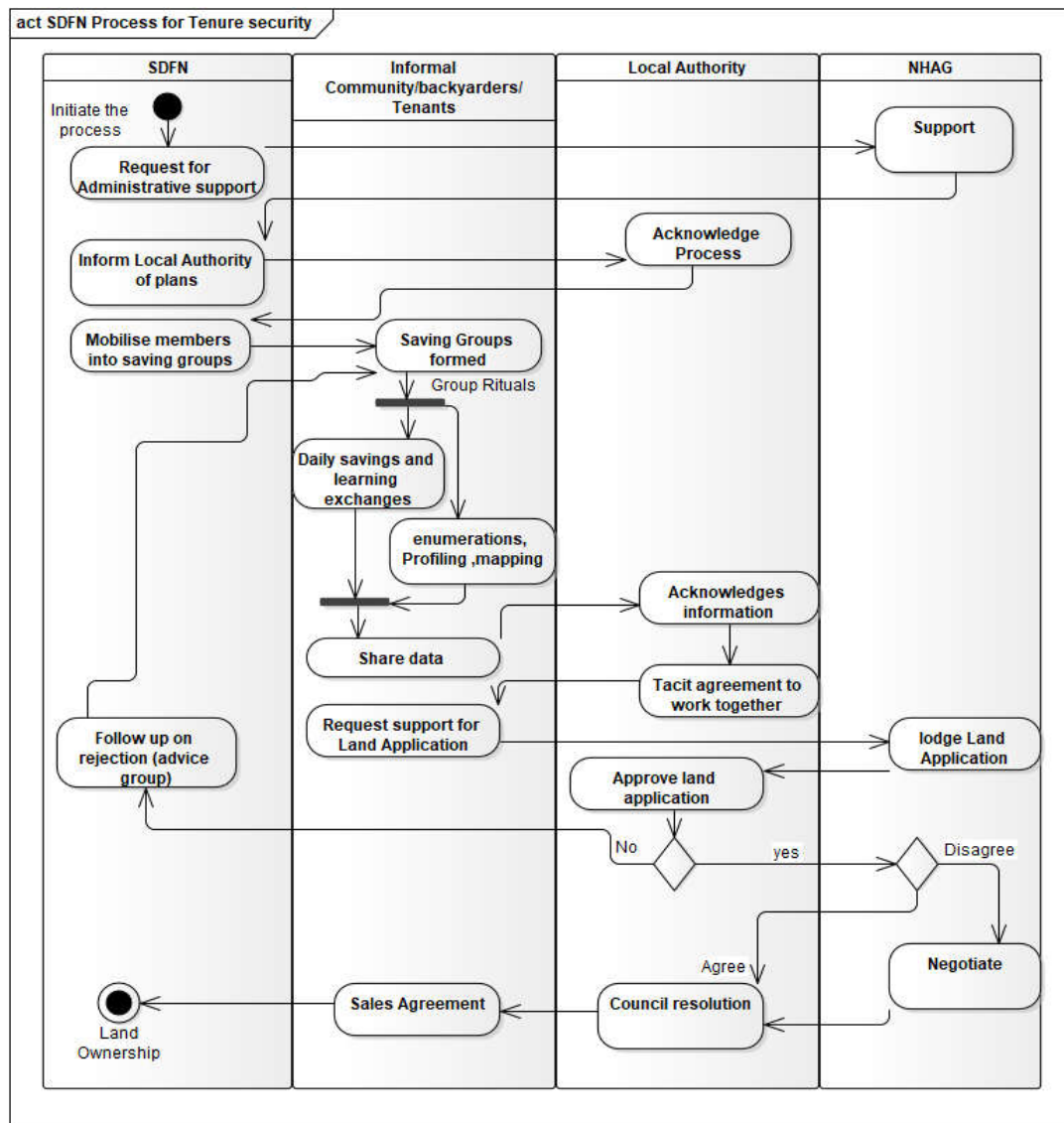


Figure 6:17 SDFN process towards land ownership

Out of 20 saving groups, three saving groups bought land from the local authority through group title. Eight groups are in Freedom Square informal settlement, with informal tenure. While, the remaining nine groups are still without land, some started as early as 2008. The members of Hatago saving group, were the first to start saving in Gobabis, in 1994. Members collected and summarised their saving and group composition information through the years. An application for land was lodge in 2002. As shown in Figure

6:18 the Gobabis Municipality approved the land application in 2004. Members moved out of the existing informal settlements and constructed housing on a piece of land they bought from the local authority with the assistance of NHAG. In contrast to Hatago saving group, new saving *Appendix 2* without land is still waiting for approval of a land application submitted in 2011, the process shown in *Appendix 10* **New Groups in Gobabis process to acquire land from Municipality**

Appendix 11. According to an interviewee from NHAG , the reason for the delay in groups land application, is due to the formal planning processes and lack of provision of land for saving groups by the local authority. To date, saving groups established in 2008 to 2010 are still waiting for a response from the local authority to buy land. However, a participant from the saving groups focus group discussion said, the municipal officials informed them, there is no serviced land for groups. As they have moved away from the model of selling un-serviced land. Unfortunately, the researcher could not get a confirmation on this from the local authority.. In following up with the NGO to understand, how the remaining eight groups will acquire land, an official informed the researcher, the groups will be integrated into the wider city plan for Gobabis, which includes all the informal settlements.

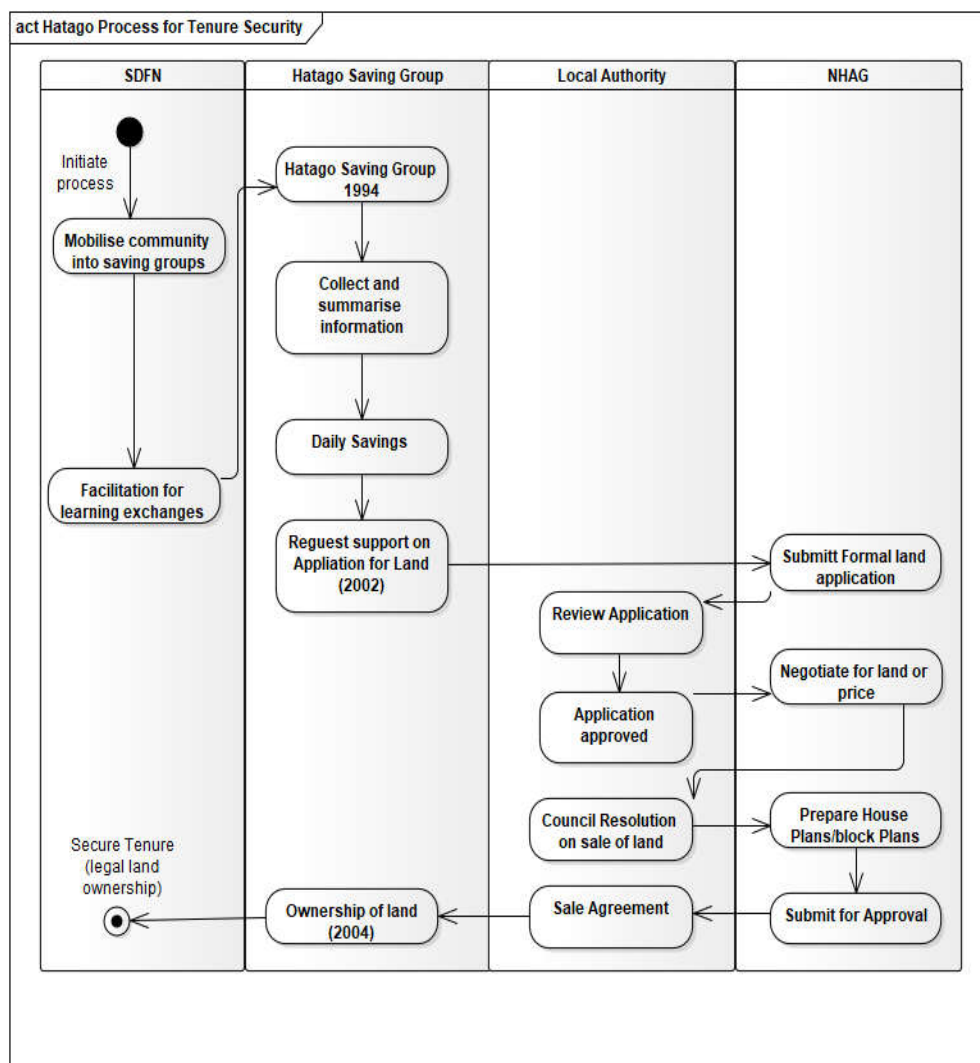


Figure 6:18 Example of saving groups process to land ownership in Gobabis

Saving groups members in Freedom Square established in 2013, have informal tenure. The members are going to be registered under the FLTS as part of the piloting project, the titling by issuing Land Hold titles

as part of the program will benefit all saving and non-saving occupants of Freedom Square Informal settlement.

Figure 6:19 shows the process followed by the community in Freedom Square to acquire land ownership. The flow was drawn from the discussion and a draft timeline designed by NHAG in collaboration with NUST officials.

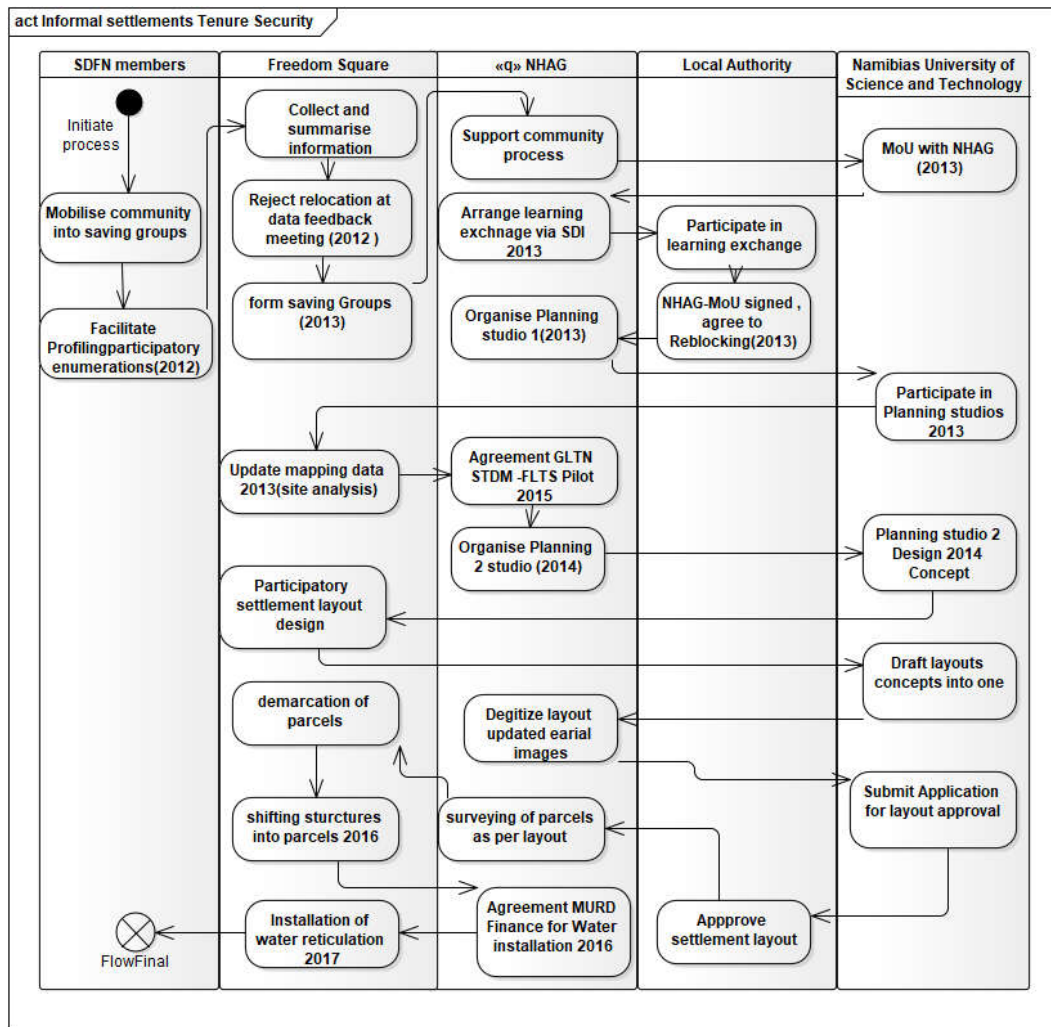


Figure 6:19 activities resulting from community enumeration in Freedom Square

The process followed below, is linked to settlement level data collection. To clarify how Freedom Square Households used community enumerations to acquire individual ownership the process is outlined below. The households are yet to receive Land Hold titles as part of the associations. This is my understanding is due to unresolved problems with the allocation of parcels. The reasons for data collection and the use of community enumerations data by stakeholders are reflected in the process. This activity diagram shows the major events that took place for Freedom Square to avoid relocations and plan for their settlement. The new actor in this process is the Namibia University of Science and Technology (NUST⁶). The use of the community enumerations for planning was facilitated by NHAG with the support from various stakeholders. The NUST provided assistance with the design of the settlement layout with the community. Through the piloting of the STDM, GLTN offered support for the demarcation of the internal parcels for

⁶ By 2013 it was The Polytechnic of Namibia, student participation took place, as part of the Department of Town and Regional Planning

households. While the Deutsche Gesellschaft-fur-Internationale Zusammenarbeit (GIZ) support to the Ministry of Land Reform(MLR), supported the demarcation of the external settlement boundary by the hiring of a professional land surveyor. Furthermore, the Ministry of Urban and Rural Development (MLR) availed funding for the installation of sewer and water reticulation in the settlement. Community members in Freedom Square dug the trenches and installed the water pipes. However, the network was not yet finalised. The activities that took place in Freedom Square are indicative of the use of community enumerations.

Acquiring of land via the group level has its own complexities. Members negotiate as a group and approval for development depends on the local authority. However, accessing land ownership on community-level appears to be more complex than on group level. Although informal settlement dwellers have demarcated parcels according to the redesign of the settlement, they will not be able to construct permanent housing until the settlement has been approved as part of the formal town layout, through township establishment and the enactment of the FLTA. The change of operations by SDFN in Gobabis in accordance to how saving groups will acquire land can have an influence on how saving groups members will wait longer for formal land ownership. The success of all the process either on group level or settlement level requires community consensus. Settlement level usually deals with a bigger number of households, and not all households are part of the saving groups. In comparison, acquiring greenfields for development deals with a group of 40 members, who are all saving and are in agreement with how the group should operate. The advantage for the informal settlement level is a larger number of households are able to acquire tenure security through the issuing of recognition by the local authority and eventually the implementation of the FLTA. However, this brings further challenges in how households will later develop the land, according to the sub-section that follows, savings are a contributing factor to tenure security, as households are able to construct permanent structures.

This sub-section showed how saving groups processes to achieve tenure security under the SDFN is implemented, on the group and informal settlement level. Furthermore, the sub-section showed the complexities of each process. Acquiring land as a group provides the advantage of a smaller number of people to work with, thus reaching agreements happen faster. Compared to informal settlement level, where all the households are not saving group members, and there are more people to deal with. This bigger number is resolved by dividing the settlement into blocks. With each section dealing with their own progress, which is later combined to the whole settlement. When a specific block is not working well together, this affects the outcome of the development of a settlement. However, when a group of 50 households works together it is much faster and easier to develop, as the plans are not affected by another section.

The next sub-section deals with factors that lead to group acquiring land, and emerging challenges. This support the understanding of how, groups and informal settlements access formal tenure security, by following the community enumeration process.

6.2.3. Factors contribute to achievement of tenure security for organized groups

The achievement of tenure security, in this study is defined as groups or communities having recognized access to land, either by an agreement with the local authority or the sale of land. The factors bellow was analyzed from semi-structured interviews with officials at NHAG. **Error! Reference source not found.** shows the thematic analysis of contributing factors and the specific challenges. The NGO and saving groups address the specify challenges by focusing on contributing factors to tenure security. Communities that lack finance for housing, are encouraged to start saving schemes, additionally, the government via the Ministry of Urban and Rural Development annually makes a financial contribution to the SDFN in

support of community self-built housing. The planning studios, are a way of encouraging the local authority and the community to plan together. However, the participatory planning can only be effective if there is an active participation of community members.

Table 6:3 challenges and contributing factors to tenure security

Factors influencing the accessing of land ownership (tenure security)	Specific Challenges
1. Community participation and engagement with the local authority. Communities making use of enumeration data to negotiation with the local authority.	a) Local authority planning for town development in isolation. Local authority plans may conflict with community priorities.
2. Planned areas for low-income groups to develop: if the local authority planned land to cater for low-income groups it is easier for groups to acquire land to develop themselves, as in the case for Hatago saving group in Gobabis.	b) No provision of land for local groups. As in the case of Gobabis, saving groups are still waiting for land for development since 2011.
3. Mobilised Households to start saving: when households are mobilized to save finances for house constructions or service provision, it increases their chances of achieving tenure security.	c) No saving or finance. Saving Groups use the daily savings to finance the loans.
4. Political buy-in and local authority understanding of SDFN processes. once local officials and councillors support the community process, it easier to develop partnerships. For the last ten years, local groups in Windhoek have been challenged with acquiring land, as the councillors do not approve of the group ownership of land.	d) No support from stakeholders (local and regional councillors, officials, and NGOs).
5. Socio-economic surveys: Community enumerations, profiling and mapping informal settlements. As the information collected according to a respondent from NHAG and SDFN would assist the communities in negotiating for improvements. The data collection activities provide saving groups, NGO and local authority on informal settlements. This is important for identifying development priorities.	e) Unorganized community. According to an interviewing, when a community is not working together, it becomes difficult to collect or use the information to advocate for development.
6. Stakeholders engagement: in the instances when the regional council, government and other development Organisation assist communities, it lessens the time to achieve tenure security.	f) No consultation or information sharing. This is the lack of inclusion of communities in an informal settlement in development decisions. This is similar to the previous challenge.

The next section summarises the findings under the sub-objectives, followed by the final objective focusing on the use of community enumeration information by the local authority, central government and NGO.

6.2.4. Summary of sub-object 2 Process followed by organised groups

Achieving tenure security for saving groups is defined as the ownership of land by group members. The process in the results, showed how groups start saving and collect information in order to buy land at negotiated prices from the local authority. The SDFN process is noted linear, as often described in the literature. Despite the complexity of the process, the study attempted to map how each of the steps is related to the goals and usage of community enumeration data for tenure security. The goals of the SDFN are divided into reasons for data collection and use. As households are able to avoid evictions and improve settlement through services installation and participatory planning. Use of the data on the continuum of data generation and use, is linked to the involvement of stakeholders such as the

universities, local authority and the NGO in implementing community development priorities. However, not each saving group that collects data ends up obtaining land to develop. Challenges of groups to acquire tenure security through the purchase or permission to occupy land are; exclusion of community from planning decisions, lack of financing, and unorganized communities.

6.3. Sub-objective three: To assess the usage of community enumerations data of informal settlements, for tenure security by stakeholders.

The last set of results focuses on the use of community enumeration data by the local authority. This is supported by information on the availability of support legislation. Followed by information on the application of data by the local authority, NGO and Ministry of Urban and Rural Development. The last result deals with, whether data providers are involved in the decision-making process for planning for informal settlements. Freedom Square informal settlement data is presented to show how the process for community enumerations was used, which might demonstrate the power of the data when used. This section ends with the synthesis of the results.

To understand the level of involvement in the community enumerations, respondents were asked if they are involved in data collection process or not, and whether facilitators are from within the settlement. They had a choice of selecting from five pre-set questions. As can be seen in *Figure 6:21* most of the respondents did not participate in community enumerations. Surprisingly, all the respondents from Tuerijandjera did not be not involved in the data collection. While only, 35% of respondents in Kanaan C took part. This can affect how residents perceive the usefulness of data for tenure security or development. Community enumerations are used for households to understand how the information they collect can be used for improvement. Although, respondents did not participate in the survey, although *Figure 6:20*; shows that many of the respondents had known the facilitators were from within their own settlement.

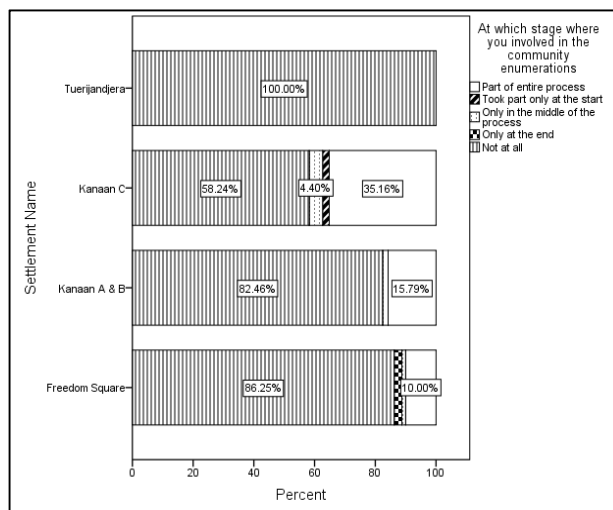


Figure 6:21 Residents Involvement in Data Collection

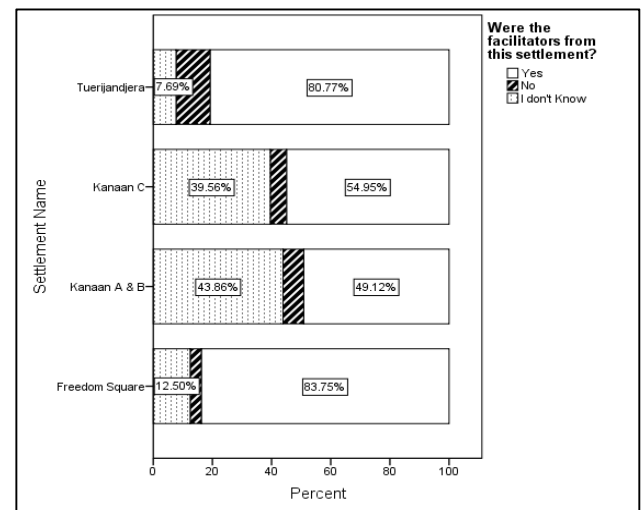


Figure 6:20 Facilitators from within the settlement

6.3.1. What legislation or policies are available in support of Participatory enumerations data use?

According to respondents from NHAG, the Gobabis municipality and an official from MURD, there is no legislation that supports participatory enumerations. To facilitate the data collection process, the Gobabis Municipality signed a memorandum of understanding with NHAG-SDFN to facilitate the participatory data collection in informal settlements. A council resolution was further made for the use of participatory data for upgrading. The SDFN works in partnership NUST on agreements. Currently there

is no legislation or policy that supports the use of participatory enumeration data. Furthermore, the Gobabis municipality is in the development stages of an informal settlement upgrading guideline. Additionally, NHAG and various stakeholders are developing a National Guideline for participatory informal settlement upgrading, through the Participatory Slum Upgrading Program (PSUP) headed by the MURD with support from UN-Habitat. There is no legislation supporting community-generated data. Gobabis municipality and SDFN-NHAG implements enumeration directed by a Memorandum of Understanding. This is positive when informal settlements need. It shows the willingness of the municipality to work with communities. Although the Memorandum of Understanding (MoU) is not compelling the municipality to take decisions based on data derived from the informal settlements. The municipality decision illustrates this to charge an amount many cannot afford, without considering the affordability of residents.

6.3.2. What is the practice of, civil society and government (local and national) in using the data generated by informal settlements communities?

Questions focused on, who owns the data, how is the data used and when used how they decide the quality. To understand who owns the data, respondents, said, data is co-owned by municipality, community and SDFN-NHAG. However, another municipal official showed, NHAG manages most of the data with the community volunteers. Although the information is collected door to door, the lack of updating results in data inaccuracy. Gobabis municipal official said, there are no criteria to judge the quality of the data. This can be indicating the direct use of the data, from observation local authority is only a secondary user of the data through community planning studios and the approval of plans, but do not use the data directly to make planning decisions. The officials do not have direct access to the data on the computers, the data is shared with them by the community volunteer and the NHAG. Furthermore, officials from the municipality and the NGO said, the verification and feedback meetings in informal settlements are enough to confirm the data's accuracy. The emphasis here is, when communities say the data is true and valid the municipality accept it as is. While an official from the MURD said, they rely on NHAG to provide data that is accurate for their reporting on the progress of the National Development Plan (NDP). The following themes on data use were identified:

6.3.2.1. Negotiation

SDFN-NHAG used the data provided by the community to assist in the negotiation for access to resources. With household level data for Freedom Square, an application for funding from MURD was supported. Plus, evidence of the community's ability to work together through the enumeration process. More important, the earliest groups provided the municipality with information on group structure. However, while this worked for Hatago other two saving groups to negotiate for land price, it did not work for the remaining eight.

6.3.2.2. Town Planning

The data collected by organized groups in an informal settlement is said to be used for town planning by the municipality as one respondent said, "the data provided guides us in knowing what we are planning." This is the case of Freedom Square, residents presented the information to the local authority and discussed development priorities of the settlement. That later lead to the settlement relocking. Another respondent said, one responded indicated from the local authority, "form the site of the council, it is vital information, that we can use for planning purposes. With the data collected by the community we can already know the number of people in informal settlements, this is overtaking the number of people in the formal settlements."

6.3.2.3. Decision Making

According to interviewees from Gobabis municipality, community enumeration data is used for decision making. Interviews reflected on how the information is important on informing the local authority on how many people live in informal settlements. As the municipality did not have this information. Although interviewees said the information is used for decision making, research could not identify specific decisions taken with regard to community enumeration data. Rather, this coincided with the previous point on town planning. However, the views of the officials contradicted the perspective of the informal settlement residents. Respondents during interviews raised concerns over the price of water meters, saying they cannot afford the 300 NAD proposed. Therefore, if the local authority used the community enumeration data to decide on the price for water meters, the unemployment levels in the settlement and the affordability of households would have been taken into consideration. As most of the informal settlement dwellers are unemployed. Rather, pricing of water meters by the municipality based on cost recovery and not information from the community. The perspective of informal settlement residents was also included. The next sub-section focuses on the response from households in an informal settlement.

6.3.2.4. Perception of informal settlement households on the use of data by municipality

Households were asked to provide their perception of data used by local authorities. Respondents were asked to indicate if they agree or disagree on a five-point Likert scale based on these statements: (1) The data collection has helped improve communication between our settlement and municipality, (2) The data collected has been influential in getting more services in our settlement, (3) the data collected has been used to influence planning in our settlement by municipality (4) The municipality is using the data to plan for our settlement. The responses to individual questions are in 8. Annexure Perception of data used by the municipality was arranged on High for no impact to very low to have an impact. Figure 13 shows respondent's perception of data use, most of the combined responses indicates many residents have a medium perception on the use of data, this was the selection of neither agree or disagree. What stands out in Figure 13 is that majority of respondents selected medium impact of data either for services or understanding their settlement. As expected Tuerijandjera has the lowest perception of data use compared to the rest at 53.85% of respondents. Interestingly, Freedom Square has the highest perception of data use impact as expected. This is unexpected as the community has collected data, implement a settlement reorganization. Households in Freedom Square felt that, although the data was collected it has not been used.

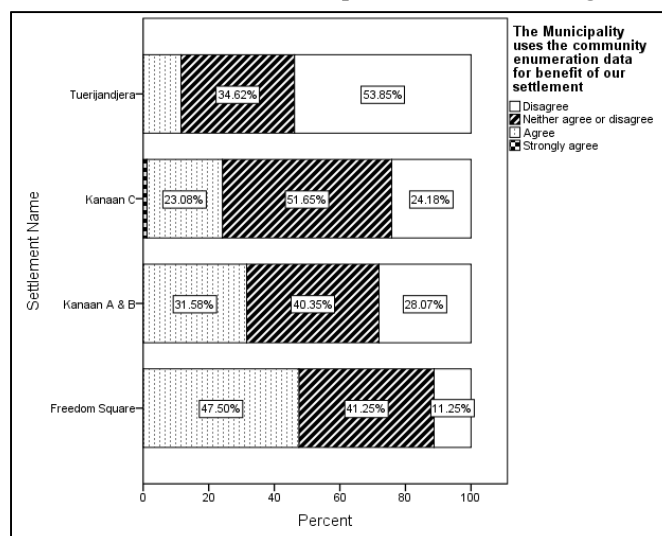


Figure 6:22 : community's Perception of Data use by local authority

The residents are still waiting to access individual water connections to their houses. As one respondent said, "there is no water, no toilets, other people did not get erven(parcel), no services yet. Data is collected every time there is

something new, yet it is not used.” While a positive response to data was “*data helped us get into rows.*” Describing the shifting of households in Freedom Square.

6.3.3. What is the role of data generators in decisions on the informal settlements?

Surprisingly according to officials at Gobabis municipality community members who generated data as part of the participatory enumeration process do not play a role in any planning decisions on informal settlements. The role they have is to generate the information. According to officials at the interview, the municipality consults the community via community meetings for comments on decisions to take. However, according to an official, there are community representatives selected by the municipality to be part of the budgetary process. Community members are seen as an important partner by the municipality and are informed, yet not consulted on decisions regarding fees, such as the water meters the majority of household respondents complained about. The lack of involvement of the community in planning decisions on informal settlements was reflected in informal settlement household’s response, officials are said to be unavailable to attend to community concerns, additionally many of the issues raised at community meetings are not addressed by the local authority. It can therefore be expected that community members are providers of the data and not seen as partners with a role in planning, with the municipality as officials responded. This might be what resulted in resident’s disagreement with the water meters payments announced by the municipality.

6.3.4. Summary on sub-objective three: usage of community enumerations data

In respect to how data is used, it emerged that data is mainly used in town planning. While the local authority does not have criteria for data quality, community verification of information was thought to be enough to trust the quality of the data. Furthermore, a respondent from MURD said, the ministry uses the data to know the number of people in informal settlements in order to measure the achievement of the NDP. The validity of the data is based on trust, that NHAG-SDFN is providing accurate data. While on participation in data collection, it was only high in Kanaan C. This might be because of recent planning studio that took place in the settlement. There is no legislation in support of community enumerations. However, the Gobabis municipality, NHAG-SDFN work with the community following a memorandum of a memorandum of understanding. The local authority supports the community in enumerations process, and further gave office space for the data entry and updating. On the one hand the municipality is supportive of the data collection, while on the other, the data collectors are not included in decision making on their settlement. This furthers, the exclusion of households in informal settlement from decision-making platforms. The major complaint from the respondents was the price of water meters. Additionally, officials are said not to be responsive to questions from community members regarding decisions taken by the municipality, which the study assumes should have taken the informal settlement communities views into consideration, based on available data on income and affordability. The community volunteers and the NHAG are the ones who are responsible for the data entry and updating. The officials access the data from the NGO and community volunteers and do not house the data themselves. This might be the reason for lack of use, although it was mentioned by interviewees that the data is used for decision making and town planning, there are no plans available yet that focus on the allocation of land for informal residents or saving groups. However, the municipality is involved and supports the city-wide plan that promotes the in-situ-upgrading of informal settlement through participatory planning. Although, this is a good approach, it shows that the municipality is only dealing with the already existing settlements and have no strategy or plan for new areas for development for saving groups that have applied for land ownership.

7. DISCUSSION

The aim of this study was to investigate the impact and use of community enumerations on the perception of tenure security in four informal settlement in Gobabis, Namibia. The first section deals with access to tenure security and perceptions of tenure security of households. The second section focuses on the saving groups process of using community enumerations to achieve tenure security by buying land from the local authority. While the last sections deal with the use of community-generated data by the local authority, NGO, and Ministry of Urban and Rural Development, with a view of the role of community members roles in planning for informal settlement. The discussion focuses on the major results and mainly the difference of tenure security between Freedom Square and Tuerijandjera settlements are discussed.

7.1. Tenure security perceptions of households in informal settlements that have implemented participatory enumerations.

To support measuring tenure security levels, *de facto* tenure security variables were operationalised to measure the confidence of households in their tenure security. Literature mention *de facto* tenure security, as a form of security(van Gelder & Luciano, 2015). The study thus focused on assessing the confidence level of households based on variables normally identified in the literature(G. L. Kiddle, 2010) to provide *de facto* tenure security. These were centred on the confidence to; build a permanent house, sell structure and plans to stay in the settlement for the next five years. Plus the relationship of the community was used as tacit approval or recognition by authorities for households to continue occupying the informal settlement (Payne, Piaskowy, & Kuritz, 2014).

The results show that the majority of informal settlement residents do not fear eviction and have a high perception of tenure security. In addition, confirm that the majority of residents in the informal settlements did not face eviction threats within the last five years. This is opposite to the notion that informal settlement households are tenure insecure due to eviction threats or fear of eviction. Moreover, residents form Freedom Square informal settlement had the highest perception of tenure security compared to the rest of the settlements. This is in support of literature(Payne & Durand-Lasserve, 2012), that older and bigger settlement are said to have a higher level of tenure security or legitimacy. However, Tuerijandjera is the oldest settlement had the lowest level of tenure security perception, this was as a result of no permission for households to stay or built their structures in the settlement compared to the rest of the settlements. Studies have shown that tacit approval(Payne et al., 2014), from local authority can provide tenure security. In this study, the tacit approval from the municipality for households to remain in the settlement resulted in the difference in results between settlements, especially the lowest and highest levels of security, this is also supported in Nakamura, (2016) *study Revealing invisible rules in slums: The nexus between perceived security and housing investment*.

Tuerijandjera, out of all the settlements had four households that faced eviction threats and according to results. Majority of respondents said, the municipality did not give them permission to build. This was also supported by the view of the municipality towards the settlement, as officials said the settlement was part of Kanaan C and not a separate settlement. This contradicted the respondent's views, as many identified themselves as an individual settlement, in addition this was shown in the data collected. Overlaying the settlement boundaries and the local authority layout, it showed that the area is located on a part already

planned for residential housing by the municipality. This supports the view that households in informal settlements are more prone to evictions in areas required for development or due to market pressures (Payne, Durand-Lasserve, & Rakodi, 2009). Furthermore, studies show, one of the main threats to tenure security for households is the action of governments, especially with the eviction of households in informal settlements (Rakodi & Leduka, 2002). In addition, inhabitants land tenure insecurity is higher based on political, and planning and construction norms, plus market pressure for demand for land (Payne & Durand-Lasserve, 2012).

The surprising finding from the study is that most residents did not respond to the statement on the confidence of households to sell their structure. Confidence to construct a permanent structure was depended on the local authority's permission, as many said they do not have permission even if they wanted to construct permanent housing. This view of residence low confidence on their perceived tenure security, supports observations by K.amma Patel, (2013); who noted that tenure security emanates from a wide range of experiences rather than from threat of eviction. The value of formal tenure lies in the perceived improvements and range of personal freedoms by owners of structures, such as personal behaviour towards construction. Recently Nakamura, (2017) found residents are still in need of formal tenure security, although there are legal and non-legal elements providing security. To this (K. Patel, 2013) noted, formal tenure for informal settlement residents will be valuable in the instance that the legal and non-legal factors change, such as support from the municipality, change in legislation. This supports the notion that in order for tenure security to contribute to poverty elimination the poor should be able to enjoy the bundle of rights, the right to sell and bequeath structure; as evictions are not a good indicator of tenure security (Nefise et al., 2011). Therefore, study results for the majority of households are to be interpreted as residents having passive tenure security. According to van Asperen, (2014), passive tenure security is when occupants feel protected against eviction, but cannot transfer their land or invest.

7.2. The process followed by saving groups in the usage of participatory enumerations to achieve tenure security.

This section, provides a major contrast to the preceding section, but builds on the understanding on how saving group level enumerations were implemented on informal settlement level, resulting in the formation of saving groups and the prevention of relocation of households in Freedom Square. This in turn supports the results on the high perception of tenure security for Freedom Square compared to other settlements. Davies, (1994), wrote that power of information is visible when data collected is used for the intended purposes it was collected for. The results showed that, goals of saving groups are divided into two levels, firstly the purpose and use of data. The data is used by the municipality and other stakeholders according to the goals and purposes set out by the saving groups. However, this use is only limited to participatory planning as part of the city-wide studio planning facilitated by the NHAG.

The earliest groups in Gobabis achieved tenure security because of organizing themselves around collective saving and convincing the municipality of their ability to save funds to pay for the land. This supports the views of Appadurai, (2012), who noted that community enumerations are tools for group formation, and communities are able to use these tool for negotiations and changing perceptions towards the poor. Moreover, the successful use of community enumerations, is able to link poor communities to engage with more powerful agencies (Appadurai, 2001). As noted by Beukes and Mitlin, (2014), groups are able to mobilize themselves to access platforms and resources. This is the same case for groups in Gobabis. However, saving groups achieved the success of buying for only three groups, while the remaining eight are left to wait. The saving groups outside of informal settlements, who followed the same process, are yet to have their land applications approved. This is linked to the identified challenges to access tenure security in the study, as listed by officials, if there is no political buy-in or local authority

support, groups are challenged to achieve tenure security. The of saving group members in Gobabis without land, have applied for group land ownership since 2011 and are yet to have a response from the local authority. Thus, prolonging their need for land ownership can cause more anxiety. As mentioned by Diana Mitlin,(2014) majority of saving group members are tenure insecure. In a different view on improving saving group members access to tenure security, the NGO has indicated that the saving group members outside of the informal settlements are to join the participatory planning of informal communities as part of the new city-wide approach. The study argues might bring about two outcomes. The first, if the allocation of parcels happens at a faster rate, as in Freedom Square happens, it will keep the groups functioning, as members will be able to achieve their goals on the security of tenure. However, the second possible outcome is, this might bring about negative results if it takes longer, as the integration of groups in informal settlements would require using available spatial information and preventing encroachment in the informal settlement by the local authority. In the book *Count me in by* (UN-Habitat, 2010), illustrated through case studies, when the government is supportive of peoples aspirations it leads to collaboration. When community enumerations are used effectively, it fosters positive relationships between the community and local authority. This study supported the preceding literature, municipality and saving groups were able to work together, for the planning of Freedom Square. Out of all the three settlement it is the only one with saving group members. Whether this directly influences household's perception of tenure security could not be determined. However, the study does show how a community that was organized was able to negotiate against relocations following community enumerations.

7.3. Usage of participatory enumerations data of informal settlements, for tenure security by stakeholders.

The preceding sections confirmed that informal settlements that have implemented community enumerations and gained improvements as a result of the processes implemented have a higher perception of tenure compared to the rest. This section discusses how the available data is used by NGO, local authority, and MURD.

There is no legislation in support of community enumerations; yet the enumeration data is used by the local authority. This shows that the local authority has accepted the community enumerations process, as noted in the literature, as governments are able to recognize its value (UN-Habitat, 2010). However, the Gobabis municipality, NHAG-SDFN work with the community following a memorandum of a memorandum of understanding, specifies the involvement of communities in participatory planning. The lack of legislation also shows the local authorities supports community processes and the data collection. However, the use of the data by the local authority is only passive, through participatory planning and not active, as in planning directly for new areas for land development benefiting low-income groups. Furthermore, the validity of the data is based on trust, that NHAG-SDFN is providing accurate data. One the side community, only a few respondents participates in data collection, the community inactiveness reduces the possibility of anything happening(Makau et al., 2012). The results in this section, support views in literature, that local authorities majorly depend on implementing organizations such as NGOs (Hachmann et al., 2017) for the success of programs.

On one hand, the municipality is supportive of community enumerations, supporting participatory planning. While on the other, the data collectors are not included in decision making on their settlement, this is in reference to the pricing on water meters. This furthers, the exclusion of households in informal settlement from decision-making platforms, as noted by Anni Beukes,(2015). Although informal settlement residents are now visible to authorities, as with the aim of community enumerations towards tenure security; the lack of inclusion in decision making contradicts the view that they are seen as partners, as mentioned by local authority officials. Majority of respondents interviewed were not included in the decision regarding the pricing and payment for water meters. If community enumerations data is used by

local authorities, officials are to make decisions based on available data; for example, income and affordability of households in pricing for services. As noted in the literature, for community enumeration practices to work as described by Appadurai, (2001), there needs to be a government and or a judiciary, that bases its decisions, at least in part, on numbers and statistics in the first place. Because if it does not, as describe in Ghertner,(2010), the role of data in governmental and planning decision making, greatly diminishes. Furthermore, this also leads to waste of time and money invested in the data collection.

8. CONCLUSION AND RECOMMENDATIONS

The objective of this study was to investigate the impact and use of community enumerations on tenure security in four informal settlements in Gobabis, Namibia. The preceding section dealt with the discussion and the results in reference to literature. This section concludes the study; by providing the summary answers per sub-objective referred to in chapter 1.

8.1. Conclusion

Sub-objective one: To assess tenure security of households in informal settlements that have implemented participatory enumerations.

1. *Have residents experienced threats of evictions?*

Majority of residents in informal settlements in Gobabis have not faced any evictions threats within the last five years. However, a small number of respondents in Tuerijandjera informal settlements have faced eviction. The limitation in obtaining a higher number of respondents, affected the results on the low number of households who have faced eviction threats in Tuerijandjera informal settlement.

2. *What is the perception of tenure security in the informal settlements?*

Majority of households in informal settlements have a higher perception of tenure security. This was answered by measuring feeling of tenure security and confidence in *de facto* variables. Using the estimation of the probability of eviction, from a feeling and thinking perspective. The *de facto* variables measuring perception provided a clearer understanding of how households perceive their tenure security. Although the majority of households do not fear eviction, the confidence in building permanent structures was low. This showed that households have passive tenure security, as the majority of households will not be evicted, many still requested for documentation to proof rights to land. Respondents in Tuerijandjera had the lowest level of tenure security, this is linked to the local authority not giving them permission to occupy the land. Residents perceive to be a secure based investigation on *de facto* variables for security showed that, residents lack the confidence to invest supports the view of a lack of tenure security, as this hinders attempts to improve shelter conditions (Durand-Lasserve, 2006, p. 2).

3. *What type of relationship exists between residents and local authority?*

Households were asked what type of relationship exist between them and the local authority to measure tacit approval. The majority indicated to have an average relationship when all Likert scale average scores were computed. However, on individual responses households agreed that the municipality officials and councillors meet with the community. Explanations were given by households, most respondents said, although officials meet with them, they do not attend to follow up questions, or concerns raised by the community in meetings.

4. *What are the settlement characteristics versus tenure security level?*

The settlement characteristics and tenure security, showed that the bigger settlement, Freedom Square has a higher level of tenure security, this might because of community enumerations and the outcomes of the process: participatory planning and service installation. However, Tuerijandjera informal settlement, had a lower level of tenure security, even though it is the oldest. The availability of services had no impact on the tenure security of households. There is no direct link between the household's perception of data use

and perception of tenure security. The study was however able to highlight, how a settlement that has used community enumerations have a higher perception of tenure security.

Sub-objective two: To assess the process followed by saving groups in the usage of participatory enumerations to achieve tenure security.

5. *What are the goals of the community when collecting data in the settlement*

The goals of the community are divided into two levels, each level shows how close the community is to being tenure security. The first level, shows the reasons for data collection and the second level the involvement of stakeholders in the use of community enumerations data. This range from reasons such as to count a number of people, mobilize the community to start saving, use of the data to stop evictions and upgrading the settlement.

6. *What processes are followed by organized groups in generating data for tenure security in informal settlements?*

The saving groups implement two processes for achieving tenure security. The saving groups showed data collection was carried out on a group level, and later the process was exercised on informal settlement level. The group level process showed how saving groups have achieved tenure security by buying land. While, the informal settlement level, specifically for freedom square has shown how the community was able to use the community enumerations to prevent relocations. Both this two process showed the complexity of the process of achieving tenure security. The results highlighted the importance of local authority and stakeholders support in the achievement of tenure security for informal settlement and saving groups.

7. *What factors contribute to the achievement of tenure security for organized groups?*

Socio-economic data collection, mobilization of members and political buy-in were identified as factors to contribute to tenure security. Challenges to achieving tenure security for groups were also listed, such as unorganized communities and the planning in isolation by officials. The contributing factors to tenure security are used to counter the challenges.

Sub-objective three: To assess the usage of community enumerations data of informal settlements, for tenure security by stakeholders.

8. *What legislation or policies are available in support of Participatory enumerations data use?*

There is no legislation supporting the use of participatory enumerations. However, the local authority, SDFN-NHAG do use a memorandum of understanding to guide activities. Local authority supports the process by offering an office space for the data entry according to observations. And participates in the participatory planning studios facilitated by the NHAG and the SDFN.

9. *What is the practice of, civil society and government (local and national) in using the data generated by informal settlements communities?*

Local authority officials use the data for town planning. But do not base decisions on the data. Community and NGO use the data for negotiation, this was shown for saving groups in negotiating for land ownership from the municipality. However, the majority of the respondent in the informal settlement had a low perception that data is used by the local authority.

10. *What is the role of data generators in decisions on the informal settlements?*

According to the municipality the data generators do not have a role in decisions regarding the planning of informal settlements. They are only providers of the data.

8.2. General Conclusion

The study finds, that majority of informal settlement residents in Gobabis do not fear evictions. The informal settlements all have common characteristics; there are no sanitation facilities, residents do not have documentation on land tenure. However, communal water points are available to the residents. This shows, the service availability does not play a major role in tenure security. The majority of water points are in Kanaan C, while Freedom Square has few water taps, but has the highest level of tenure security based on residents perception and confidence in *de facto* tenure variables. This is might be as a result of residents waiting for land tenure documentation as part of STDMP piloting for FLTS, or that residents planned their own settlement and installed services. Statements on *De facto* tenure security variables provided a better understanding of the resident's confidence in the use of the land.

Measuring tenure security using confidence in *de facto* variables provided clarity on the extent to which households can exercise rights on the land they occupy, as earlier studies showed, in order for tenure security to contribute to poverty eradication, households need to have access to more bundle enjoy the bundle of rights(Nefise et al., 2011). Although the majority of households do not fear eviction, the low level of confidence of households to invest in infrastructure; to sell structures and to bequeath structure to heirs, indicated the need for land tenure documentation. The data generated by the informal settlement residents through community enumerations for Freedom Square showed how communities are able to use information and stakeholder support to secure access to land. This showed the power of information when used. Regrettably, the local authority not basing their decisions on cost for water meters on the data provided showed that the power of the information has a limitation, especially if local authority only bases the decision on informal settlements on cost recovery and not the affordability of residents.

If the data generated by the community is to be used in the future for; land recordation; decision-making or to prove ownership, there is a need for direct involvement of local authority officials in the management of the data. Allot of time is invested in the community data collection as observed in other studies (Rigon, 2017), if this is not managed properly, it will be unusable in the future. Respondents in informal settlements limited participation in the processes provides an element of concern in the sustainability of community enumerations to achieve similar levels in other settlements. The participation and ownership of community in enumerations is the element of power. However limited community engagement hinders the success of community enumerations especially in advancing community development priorities, which was a major element of success when the CLIP was initiated(Muller & Mbanga, 2012).

The continuum of data generation and use showed how settlements that have only counted residents and are not close to negotiation have a lower level of tenure security. The study recognises that the process followed by saving groups is complex and not linear. The continuum generated, provides a step to test it further to explore if this applies to other communities that have collected data

8.3. Recommendations

The study focused on the impact and use of community enumerations data for tenure security. However, the level of tenure security was clearly established, while the use of the data was only for one settlement and views of the local authority were limited to the application. The process followed by saving groups on group level have been effective in providing tenure security for members. However, this was not effective for all groups. As some are still waiting for approval to buy land from the municipality. This brings a new phase of the investigation, that was not anticipated as part of the study. The recommendations for this study are in two forms. The first is on how community enumerations can greater benefit informal

settlement residents in achieving tenure security, looking at opportunities for, local authority and the NGO. The second is on further research as a result of questions that emerged.

8.3.1. Opportunities for using community enumerations

- The collection and use of data in the absence of any legislation, besides the MoU shows there are prospects for improvement. However, to ensure success in the management and use of the data, there is a need local authority officials who work on informal settlement development to have direct access to the data.
- The data provides the location of households, parcel size, number of occupants. If the data is well managed and updated, it can be used as part of the informal settlement land occupation recordation.
- The majority of respondents did not partake in the data collection or understand its use. There is a need for more sensitization of households on the benefit of community enumerations and savings.
- Informal settlement residents and communities are to be informed of the factors that contribute to the achievement of tenure security based on the success of the saving groups and challenges identified.
- Saving groups have similar rituals, but the knowledge of group members in the Freedom Square informal settlement compared to those outside the settlement brought a question, are the members in Freedom Square informed enough about the functions and operations of saving groups?

8.3.1.1. Further Research

- Is the continuum of data generation and use applicable to all informal settlements that have used community enumerations. The study recognizes that the process followed by saving groups is complex and not linear. The continuum generated, provides a step to test it further to see if it does apply to other saving groups that have collected data
- To what extent is the community generated data used in other countries?
- What are the limitations to the use of the data if any?

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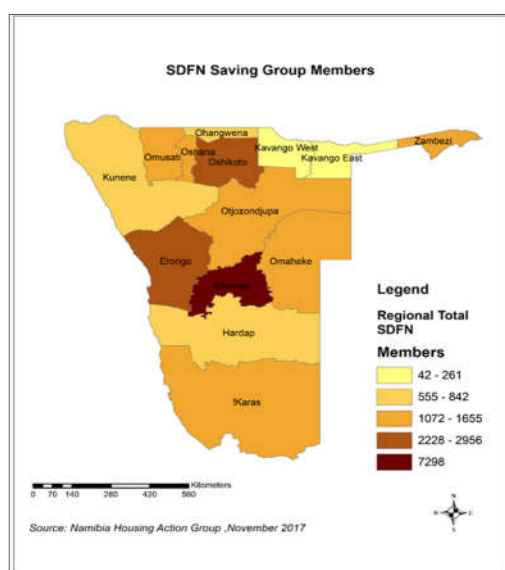
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Appendix 1 Total Numbers of Saving Groups in Namibia



Appendix 2 Saving groups with access to land ownership in Gobabis

Num ber	No Land ownership	Group Name	Year formed	Total Membe rs	Male	Female	Saving (NAD)
1	Group Land Ownership	Hadago	1998	50	10	40	8159
2	Group Land Ownership	Shapenduka	2000	26	6	20	30313.4
3	Group Land Ownership	!!Gubasen	2002	14	1	13	10723.34
4	No Land	Turipamwe	2008	0	0	0	0
5	No Land	Ipopeng	2009	54	4	50	
6	No Land	Huikes	2009	199	106	93	24762.46
7	No Land	Kalahari	2009	-	-	-	-
8	No Land	Toyeni	2009	-	-	-	-
9	No Land	Boelagae	2009	32	6	26	29932
10	No Land	Di tan	2010	16	5	11	14869.65
11	No Land	Tanigu	2012	31	4	27	24778
12	No Land	Ipeleng	2012	0	0	0	0
13	Informal tenure	vasbyt	2013	15	3	12	14813
14	Informal tenure	Nuwe begin	2013	41	8	33	11281.75
15	Informal tenure	Independent	2013	-	-	-	-
16	Informal tenure	Ada om	2013	-	-	-	-
17	Informal tenure	Tiger wood	2013	149	70	79	28163.8
18	Informal tenure	let them talk	2013	-	-	-	-
19	Informal tenure	Raising star	2013	100	40	60	11078.74
20	Informal tenure	Iovfull	2016	20	2	18	4377.5

Appendix 3 Pictures on Data Collection in the informal settlements



Appendix 4 Overview of Respondents Profile

Settlement Name	Year Established	Ownership(count)			Gender (%)		Saving Group (%)	
		Owner	Tenant	Total Households	Male	Female	Yes	No
Freedom Square	2004	79	1	80	41.3	58.8	78.8	21.3
Kanaan A & B	2006	56	1	57	31.6	68.4	1.8	98.2
Kanaan C	2007	91	0	91	39.6	60.4	0.0	100.0
Tuerijandjera	1987	26	0	26	30.8	69.2	0.0	100.0
Total		252	2	254	37.4	62.6	25.2	74.8

Appendix 5 Respondents from Semi-structured interview and focus Group discussion

Role	Organisation	Organisation Type
Community Development Officer	Gobabis Municipality	Local Authority
Regional Coordinator	Namibia Housing Action Group	NGO
Technical Officer	Namibia Housing Action Group	NGO
National Coordinator	Namibia Housing Action Group	NGO
Strategic Executive	Gobabis Municipality	Local Authority
Town Planner	Gobabis Municipality	Local Authority
Control Administrative Officer	Ministry of Urban and Rural Development	National Government
Public Relations Officer	Gobabis Municipality	Local Authority
Facilitators for	Shack Dwellers Federation	CBO
Saving group members	Shack Dwellers Federation	CBO

Appendix 6. Household level questionnaire

Form ID

Settlement Name

Structure Number

Owner ☐ Tenant ☐

Saving Group Yes ☐ No ☐

Gender Male ☐ Female ☐

Section 1. Length of stay in Settlement

1.1. How Long have you lived in this settlement?

(a) Three to five years ☐ (b) Six to Eight years ☐

(c) Nine to ten years ☐ (a) Ten years + ☐

Section 2. Views of Data

2.1. At what stage were you involved in the data collection process?

(a) part of the entire process ☐ (b) Took part only at the start ☐
(c) Only in the middle of the process ☐ (d) Only at the end ☐ (e) Not at all

2.1.1. Explain Selection

2.2. Were the facilitators for the data collection from your settlement?

(a) Yes ☐ (b) No ☐ (c) I do not Know ☐

2.2.1. Reasons for A

2.3. Please indicate if you agree or disagree with each of the following statements on the importance of the collection of tenure information. Please select from each statement.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Explanation
The data collected has helped improve communication between our settlement and municipality						
The data collected has helped improve communication between our settlement and municipality						
The Data collected has been influential in getting more services in our settlement						
The data collection has been used to influence planning in our settlement by municipality						
The municipality is using the data to plan for our settlement						
5. I feel that the data collection has helped us understand our settlement better						

2.5. After data is collected feedback meetings are held in the community, how would you rate the feedback meetings

(a) very poor ☐ (b) Poor ☐ (c) Average ☐ (d) Good ☐
 (e) very good ☐

2.5.1. Explanation for Selection

3. Relationship between the Local Authority and the community

3.1. Please indicate how much you agree or disagree with each of the following statements about the relationship between local authority and your settlement. Give reasons for the strongly agree and disagree.

Please select one for each question

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Explanation
1. The municipality approves of me settling here						
I have the right to build my house here and the municipality agrees						
The municipal officials& councillors always meet with the community to discuss issues related to the settlement						
I can freely talk to the municipal officials about issues arising in the settlement						
The municipality communicates through the leaders on critical issues						

Eviction Threats

4.1. Have you faced eviction threats within the last five years? If yes, answer 4.1.2, if no move to 4.2.

(a) Yes (a) No

4.1.1. If yes by who

(a) Local Authority (b)Community Leader (c)Neighbour

(d) Other.....

4.1.2. Reasons for Eviction notice/threat

4.2. Has your neighbour or other community faced evictions or eviction threats

(a) Yes No

4.3. Please indicate how fearful you are for each of the following statements on eviction threats

Please select one for each question

	very much	somewhat	neutral	not really	Not at all	Explanation
1. The possibility of eviction worries me						
2. The fear that someone will try to evict us out is present						
3. The possibility that we will get evicted from this settlement is present						
4. It is possible that the municipality will try to evict us in the future						

5. Security of Tenure

Please indicate how confident or not confident you are with each of the following statements in relation to your tenure here

Please select one for each statement

	very confident	confident	average confident	a little confident	Not confident	Explanation
1. I will not experience problems from the municipality if I build a permanent house						
2. my children will be able to inherit this structure						
3. I feel that I can sell this house to anyone without a problem						
4. I will stay in this structure for the next five years or more.						

Appendix 7 Interview Guide Local Authority and MURD

1. only some questions apply to the ministry

1. Please provide list of settlements in Gobabis
 2. What is the land tenure status of each settlement
 3. How is data generated by communities used in your organisation for example in: Planning, preventing evictions, community land register on informal settlement
- Is there a policy or framework that support the community data generation process
5. What steps are normally taken once a community presents its data to the municipality?
 6. How do you validate the data presented?
 7. What criteria is used for accepting or rejecting community data?
 8. Please select one reasons on the importance of data collection

Please select one for each question	almost always	often	sometimes	seldom	Never
1. the data collected is helps improve tenure security for residents in informal settlements	almost always	often	sometimes	seldom	never
2. the data collected has been influential in getting more services for informal settlements	almost always	often	sometimes	seldom	never
3. the data collection is helpful in influencing planning by municipality	almost always	often	sometimes	seldom	never
4. The community is an essential partner in improving security of tenure in informal settlements	very important	important	fairly important	slightly important	not important
5. The data collected helps the municipality understand the scale of informality in the town	almost always	often	sometimes	seldom	never

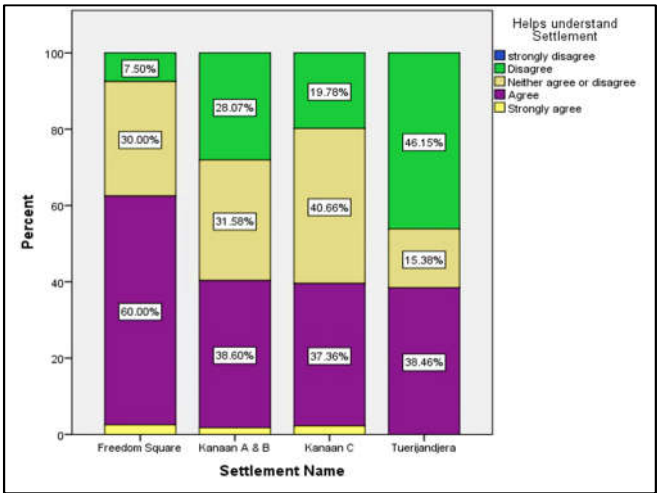
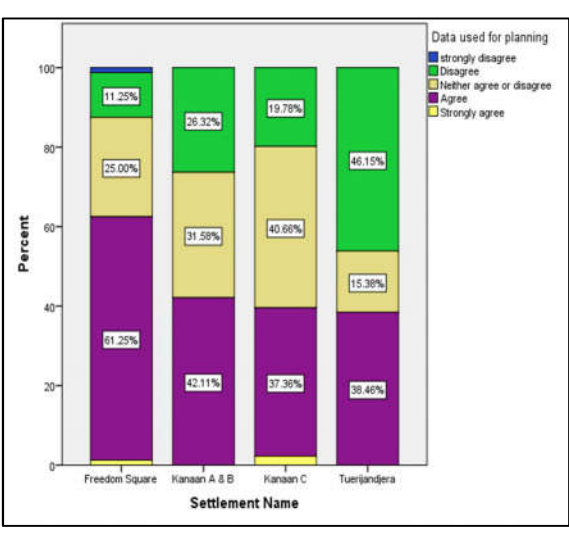
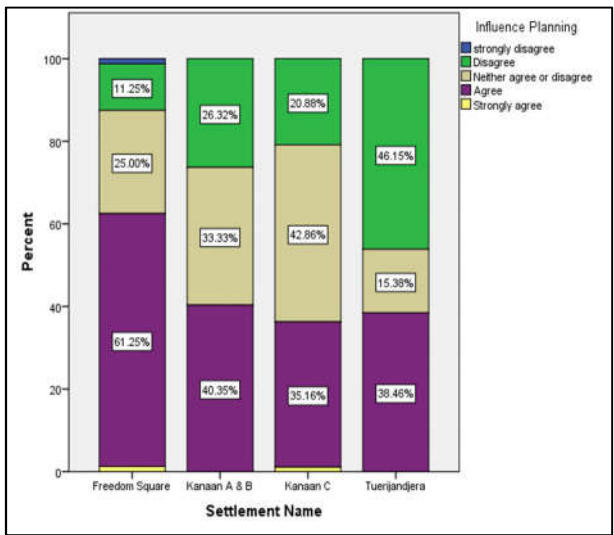
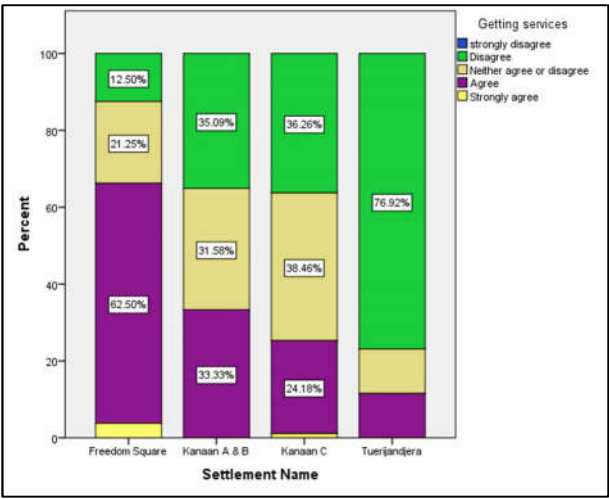
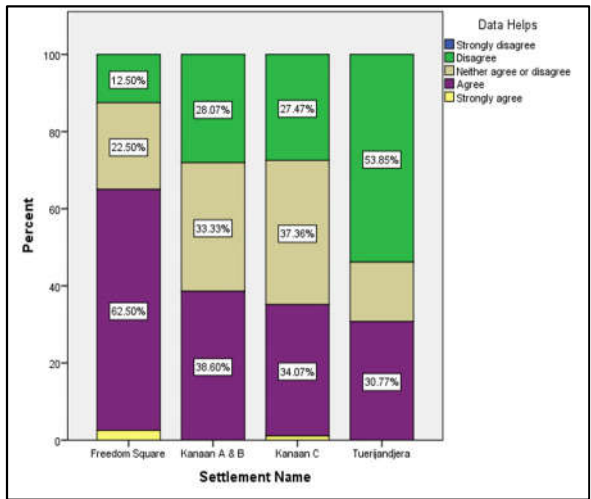
9. What role does the data generators play in decisions on the informal settlement?

In your opinion, what are the positive and negative aspects of the data collection process

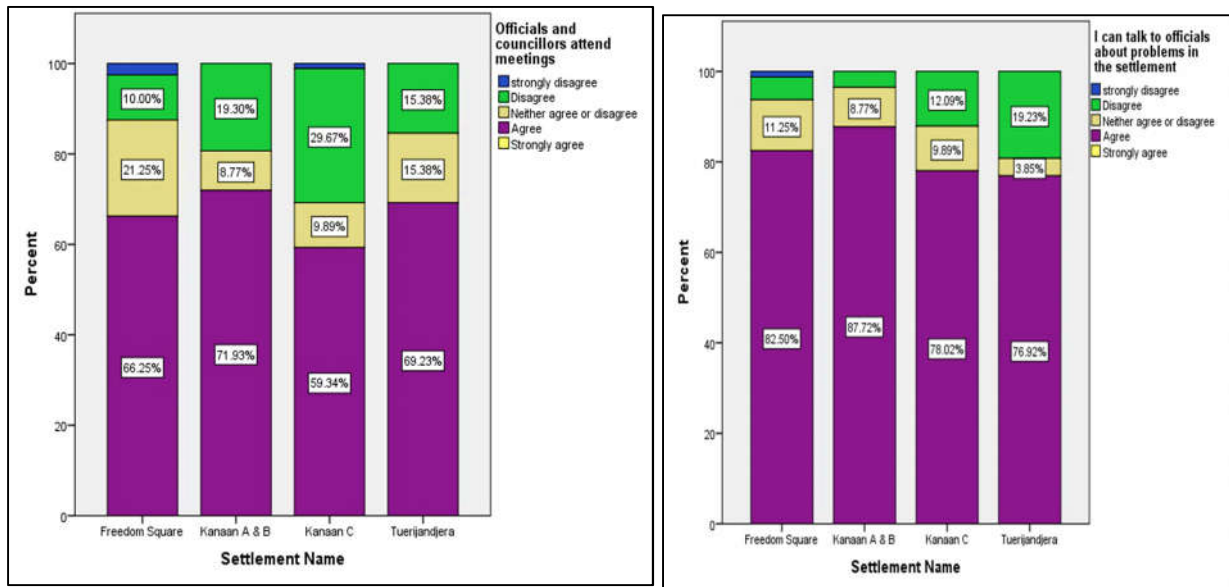
In what ways do you think data generated by the community is important for the local authority Select one

Please select one for each question	very important	important	moderately important	slightly important	not important
1. The community generated data is important for improving settlements					
2. I make use of the data to be informed of community priorities					
3. The data is important to share with stakeholders					
4. The data does influence the plans of the local authority					
5. The whole community is involved once data collection process starts					

Appendix 8 Figures of Perception of Data use



Appendix 9 Perception on local authority officials and councillors meeting with community



Appendix 10 New Groups in Gobabis process to acquire land from Municipality

