

https://dspace.org/

The dynamics of mining towns: the case of Khutsong township, Carletonville

Tunce, Loyiso

2016

http://hdl.handle.net/10539/22970

Tunce, Loyiso (2016) The dynamics of mining towns: the case of Khutsong township, Carletonville, University of the Witwatersrand, Johannesburg, <http://hdl.handle.net/10539/22970>

Downloaded from a DSpace repository. https://dspace.org/

The Dynamics of Mining Towns: The Case of Khutsong Township, Carletonville

A RESEARCH REPORT IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE MASTER OF URBAN STUDIES

UNIVERSITY OF THE WITWATERSRAND

SCHOOL OF ARCHITECTURE AND PLANNING

2016

LOYISO TUNCE

Declaration

I, Loyiso Tune, declare that this is my own unaided work. It is being submitted for the partial requirement of the Degree in Masters of Science in Town and Regional Planning at the University of the Witwatersrand, Johannesburg. It has not been submitted for any degree or examination at any other university.

_____

Loyiso Tunce

March 2015

Acknowledgements:

- The NRF/DST Urban Resilience Bursary
- My supervisor Prof Claire Benit-Gbaffou and a big thank you to Prof Alan Mabin; Dr Sally Peberdy,
- My friends: Jonathan Lembelani Daka, Thembani Mkhize, Edward Molopi
- My family, especially my uncle
- The Masicorp
- MMUF
- The Gauteng City Regional Observatory (GCRO)
- Kgopolo Makgopela
- And a big thank you to all my respondents in Khutsong and Carletonville

Abstract

Mining and the mining experience is one that has been written about extensively in academia. The history of mining in South Africa has not only shaped the physical landscape of the country but has shaped peoples understanding of the different spaces. The changing dynamics of mining, especially gold mining has played a role on the different experiences in contemporary South Africa. The decline in employment and production in the sector has meant that people in these gold mining towns have had to adapt to the changing times. The concept of resilience allows the research to view spaces such as that of Khutsong to see how people in such places are able to be resilient and the factors impacting on their resilience.

Table of Contents

Section *Pages*

1. Introduction 1

1.2. Aims 3

1.3. Research Question 3

1.4. Chapter Outline 3

1.5. Summary of Methods 4

1.6. Methodology

1.6.1. Introduction 5

1.6.2. Case of Khutsong 6

1.6.3. Getting started 7

1.6.4. Research Participants 8

1.6.5. Interviews and Observations 10

1.6.6. Limitations 11

1.6.7. Conclusion 12

Chapter two

2. Literature Review

2.1. Introduction 13

2.2. Resilience 13

2.2.1. Engineering vs Ecological Resilience 15

2.2.2. Social – Ecological Systems 16

2.2.3. Adaptive Capacity 17

2.2.4. South African Urban Space 18

2.2.4.1. Poverty and Vulnerability 19

2.3 Mining and the Figure of the Migrant 20

2.3.1. History, migrancy and Gauteng 21

2.3.2. Remittance behaviour amongst migrants 23

2.3.3. African urban experience and uncertainty in Gauteng 25

2.4. Conclusion 26

Chapter three

3. Gold Mining and Khutsong

3.1. Introduction 28

3.2. Backgroung Information on Khutsong 28

3.3. Unstable land in Khutsong 35

3.4. Dermacation and violence 39

3.5. Gold mining in South Africa 40

3.6. Case of Khutsong and gold mining 43

3.7. Conclusion 51

Chapter four

4. Findings

4.1. Introduction 52

4.2. Rural ties 52

4.2.1. Remittances 57

4.3. Social networks 59

4.4. Informality 61

4.5. Implications for Resilience 62

4.6. Conclusion 64

Chapter five

5. Conclusion

5.1. Introduction 64

5.2. Khutsong and mining 64

5.3. Resilience in the unpredictable city 65

References 68

List of figures and graphs

Figure 1: Province of birth for Khutsong 55

Figure 2: Where do people consider to be home in Merafong Municipality 56

List of Maps

Map 1: Proportion of mining sector per mesozone in Gauteng 33

Map 2: Proportion of Finance per mesozone in Gauteng 34

Map 3: Proportion of Manufacturing per mesozone in Gauteng 35

Map 4: Proportion of Agriculture, Forestry and Fishery in Gauteng 36

Map 5: Map of Gauteng 39

Map 6: Map of Khutsong Township and surrounding areas 40

List of photographs

Photo 1: House on a sinkhole with visible heavy damage to the walls and floor 46

Photo 2: The side of the house collapsing due to sinkhole 47

Photo 3: A crack in the floor of the house as a result of sinkhole damage 48

List of Tables

Table 1: South Africa's Gold Mines: Employment 30

Table 2: South Africa's Gold Production 1996 – 2005 30

Table 3: Merafong City population according to gender 41

Table 4: Khutsong population according to gender 42

Table 5: Merafong City population in 2001 and 2011 43

Table 6: Population statistics for Merafong City Local Municipality 43

Acronyms and Abbreviations:

NUM – National Union of Miner Workers

CBD – Central Business District

SES – Social Ecological Systems

GCRO – Gauteng City Regional Observatory

Ex – Extension

ANC – African National Congress

SACP – South African Community Party

YCL – Young Communist League

MDF – Merafong Demarcation Forum

KZN – Kwa-Zulu Natal

FGDFDC – Free State Goldfield Development Central

Chapter one

1. Introduction:

Gauteng is a very dynamic place. The province has continually adapted to change in order to sustain itself. In the process of re-inventing itself Gauteng has included and excluded many (Mbembe and Nuttal: 2004). Many places and people have been discarded and forgotten. Some recent work has sought to foreground the figure of the migrant in post-apartheid South Africa, the neglected, sometimes forgotten figure, who until recently remains subject to post-apartheid forms of exclusion, "living in places and circumstances not of his or her choosing, the migrant worker is constrained to experience the metropolis as a site of radical uncertainty, unpredictability, and insecurity" (Mbembe and Nuttal: 2004; 362). The history of the Gauteng region is a story closely linked to the discovery of gold. Migrant labour was instrumental in the making of "Egoli", 'the city of gold'.

In the Gauteng Province there are many spaces of abandonment. In thinking about this, one can think of the move by major businesses away from the Johannesburg central business district (CBD) to areas such as Sandton (Tomlinson et al: 2003). But spaces of abandonment are also sites such as mines and peri-urban mining towns that have to deal with environmental and social challenges such as declining production in mining. These are spaces in which poor people find themselves settling across the spatial and economic periphery of the region. The social challenges that are associated with mining activity in the mining (and former) mining towns present new challenges to these 'communities'.

The study will add to knowledge around the conditions of these mining towns and peri-urban areas with the study investigating what forms of resilience these communities themselves allow and create to meet these social challenges brought about by changes in the mining activity. The research seeks also to analyse the perceptions, practices of the 'communities' to these social challenges. The research project seeks to argue that in Khutsong the urban experience and the idea of the 'urban' is an important factor in peoples resilience.

The events that have taken place in Marikana[1] evoke trauma, they are spaces of poverty, inequality and bring notions of making meaning to the surface of our thinking about the city but more specifically around the spaces of migrant labour in order to look at the broader framework of the right to the city and citizenship. The events at Marikana also raised questions around the continuation of circular migration and the pressure it puts on households. The events exposed (in some ways) the dualities of many peoples lives with two homes and that for others that they had made their homes on the platinum belt and were not able to make them as they wanted to with the salaries they were receiving (Alexander et al., 2012).

The Carletonville, Khutsong region finds itself as being one of these spaces in which poor people find themselves setting across the peripheries of the Gauteng region. The township is part of the Merafong Local Municipality on the West Rand of Gauteng and is situated at some (physical and financial) distance from Johannesburg. Khutsong also happens to fall outside the mining centre of Carletonville (Kirsher: 2012). Khutsong has with it the apartheid spatial urban legacy as it was built outside what used to be the white mining centre of Carletonville.

The township, as a result of the gold mining history has been a source of migrant labour for areas around South Africa and neighbouring countries, such as Mozambique (Mistry and Minnaar 2000 cited in Kirshner 2012). Though falling outside the mining centre that is Merafong and Carletonville, Khutsong still has the biggest population in the Merafong Region. The township also has the highest unemployment and poverty rates in the Municipality.

The events around the demarcation and re-demarcation of the Carletonville-Khutsong areas and the strong protest action and response from the communities illustrate peoples understanding of their citizenship and identity in South Africa. These tensions still exist to this day; thus Carletonville provides a good way to probe around these concepts.

[1] On the 16th of August 2012 34 striking miners were shot down by the South African police. Leading up to the 16th, between the 10th and11th August 10 other people were killed. This was all the result of an unprotected mining strike in the Platinum belt of Rusternberg.

1.2. Aims:

This study hopes to shed some light and contribute to other on-going studies taking place in the area not only in assisting in drawing lessons on what should be the way forward but also in addressing some of the experiences faced by the people of Carletonville. It is also hoped to spark some debate and provide some understanding as to the dynamics faced by Carletonville as a peri-urban town. Much work (Marais 2006; Nel and Binns 2002; Nel, et al 2010) has been done on mining towns in decline but this study hopes to combine mining towns and periphery area dynamics in one study in order to provide an understanding on how such concepts work and illustrate the dynamics faced by Carletonville. The study is important as it relates to people's daily experiences of unemployment, poverty and marginalization and how they seek to build their resilience under such circumstances. Research questions that follow help us getting and understanding to the aims and argument of the research project.

1.3. Research Question:

- What are people's experiences and their resilience strategies in the face of the challenges currently experienced by the town of Carletonville in the face of declining employment in the gold sector?
    - How does the character of Khutsong as an urban settlement shape people's perceptions and practices?
    - How has the history of Khutsong shaped peoples resilience?
    - How has the geographical position and history of Khutsong in relation to Johannesburg shaped its present economy?

1.4. Chapter outline:

Chapter one: This is the introductory chapter. This chapter serves to contextualise the research project while providing details of the argument of the research project. The chapter also contains the research methodology of the study.

Chapter two: This chapter is the literature review of the research project. The theoretical concepts dealt with include the resilience concept, a definition and background of the concept

provided. Provided with this resilience section are the different theoretical themes, ideas and arguments that surround contemporary debate around resilience. The other theoretical work looked at in this chapter is around African migrancy and urban experiences in Gauteng.

Chapter three:

This chapter provides a background context of Khutsong and Carletonville. The history and current situation of the region is provided to offer a context for the study. The gold mining history of Gauteng is also looked at.

Chapter four:

This chapter is one of the crucial chapters, if not the most, here the findings of the study are presented. The chapter consists of the theory framework and fieldwork material in looking at the question of resilience.

Chapter five:

This chapter provides the conclusion of the research project. Theoretical material and empirical material are linked to summarise the argument regarding resilience in Khutsong.

1.5. Summary of methods:

The study is qualitative in its approach. In order to meet the requirements of the argument and aims of the study the interview process with participants was chosen. The interview questions were at most times open-ended. The interview process was insightful and informs the research project.

Khutsong was chosen as the single case study for the research project. A single case study method was helpful in not only directing the research but narrowing the research project. Khutsong was chosen because of its relevance to the research argument at hand. The decline of the gold mining economy in the area has shaped the space thus presented a good opportunity to see how such dynamics play themselves out in Khutsong.

1.6. Methodology

1.6.1. Introduction:

The ‘Marikana moment’ in the country has a big significant for many people in the country. In a post-apartheid context many people could not have imagined that such an event could have occurred. The ‘Marikana moment’ forced a conversation amongst South Africans around the mining economy of the country. For me the massacre hit home because like many other South Africans I am affected by the mining sector with all its issues. I have family, friends involved in mining, whether be it in the platinum belt or the rand. My uncle is a miner in the gold sector, working at Elasrand mine in Carletonville. I am also aware of many young men from my village, Elxeni in Engcobo in the Eastern Cape, who work in the mining sector, whether be it in the platinum belt or the gold sector.

The events that took place at Marikana thus made me worry about their safety and future, thus I paid extra attention to the mining situation in South Africa. But the events that took place in Marikana also raised my curiosity with regards to the current impact of the mining economy in small towns throughout the country. The concept of resilience thus provided a good platform to have a look at this mining economy, using Khutsong as a window into the complicated issue.

My first understanding of the mining sector was that it was an employer. Growing up as a boy in my village in the Eastern Cape, I had become used to the custom whereby once a young-man had reached a certain age he would leave for *Egoli* (Gauteng) to work in the mines. One thing that was noticeable to me at this time was that finding work in the mines involved networking. The young men would head to Gauteng to one of the mining centres of the province, residing with a family member, friend or family friend. That person would help the new recruit to find employment in the mine. These networks were important in not only providing shelter but also as an introduction to the city. This introduction meant that the new arrivals to the city were shown the ropes. Securing stable employment was thus a way for one to entrench ones mark in the city. Thus for many in our village the city and the mining centres that many young men flocked to were spaces of employment where-areas the village represented the opposite. One waited dormant in the village until a work opportunity arose in the far-away city.

These networking patterns are still visible to this day in my village. These networks were clear when the strike in Marikana was taking place. The workers had not been paid in a very long time. On many occasions many of the displaced miners in Marikana from my village and neighbouring villages who knew my uncle would regularly phone him to see if there were any vacancies in the Carletonville mines.

1.6.2. Case of Khutsong:

For the current research, Khutsong was chosen as the study area of choice. Khutsong and the Merafong Region are linked with the mining history of Gauteng, thus the area is able to provide for the current study a look at the lived experience and impact of decline of mining and resilience strategies. A case study method is suitable for the current research as "a case study is an empirical study that investigates a contemporary phenomenon within its real-life contexts" (Yin: 1991; 13). Another added advantage with this method is that it is able to draw on multiple sources or evidence (Rowley: 2007). This strengthens the data collected, giving the researcher the opportunity to be able to experience and write fully about the topic at hand while moving away from a surface reading of the situation to a deeper understanding.

A case study approach is also beneficial because it is case specific, meaning that it does not allow for generalization. But with that said a case study method allows for pinpointing certain themes and can help focus the research. Yin (2014) goes on to comment that "a case study allows the investigators to focus on a case and retain a holistic and real-world perspectives" (Yin: 2014; 4). Most important from a case study method is the ability in allowing the researcher to look at real-life situations and be able to give provisions for detail in information (Flyvberg: 2006).

At the commencement of the research I was aware that the issue being investigated in the study can be found and there are similarities in other regions in the country but Khutsong was chosen because of its proximity to Johannesburg and the availability of resources in the area thus providing opportunity to undertake the task of research without many hindrances. Khutsong as a case study thus helps to provide a broader thematic understanding of experiences and resilience strategies of mining communities in post-apartheid South Africa, where patterns of livelihood and home-making are varied and remain intensely polarised.

1.6.3. Getting started:

Having proper access to people living in Khutsong was vital. Initial visitation and interview process in Khutsong started with my involvement in the Peripheries Project, which was a project exploring peripheral areas in the Gauteng Province, when I accompanied Mr Khangelani Moyo and Ms Yasmeen Dinath of SoAP to undertake interviews in Khutsong. Their interviews were with Tsekiso Diniconyakane from the 'Khutsong Youth Services' and the principal of CarletonJones High School. These two interviews took place on the 27th of May 2013. My Involvement in this process was beneficial as this provided me with the feel of Khutsong and to be able to learn about general problems faced by Khutsong's residents.

Access to Khutsong for the purpose of the current study came about later in the year through a fellow student (Kgopolo Makgopela) who was also doing research in Khutsong. I was then introduced to a man named Ma-asie who would turn out to be the key informant for the research. Ma-asie is a political activist in Khutsong, and was involved in the demarcation riots that took place in the township. My introduction to Ma-asie was facilitated by Ms Makgopela. She had told Ma-asie about my interest in Khutsong and the details of the researchers' project.

After receiving Ma-asies's cell-phone numbers I made contact and introductions were made, as expected I was a bit anxious because I needed someone to get into Khutsong and I was hoping Ma-asie could be that link to Khutsong. Ms Makgopela had described safety had been an issue for her going to do the fieldwork in Khutsong but having Ma-asie had helped. After I had reached him via phone we had a conversation whereby I introduced myself and my plans of undertaking fieldwork in Khutsong. The conversation turned out to be very fruitful and he seemed very nice and excited over the phone. I then asked for his email address so that I could send him the research proposal so he could have a proper look and understanding of the work and my involvement in Khutsong. After e-mailing the proposal to him, we had another phone conversation to see if he understood my research and to plan for my visit to Khutsong.

It would be two weeks later before we had our first face to face meeting. We were to meet in Carletonville Town in the morning. As I was staying with my uncle getting to town was not an issue, as it was only one taxi ride away. For this day, we had arranged that Ma-asie would pick me up and we would go to Khutsong together. For this day I had planned for an

interview with Ma-asie and I wanted him to show me around. Upon arriving in town in that morning, Ma-asie was driving from Fochville thus would pick me up on his way. After waiting for forty minutes for him he told me that there had been an accident on the road thus would be delayed. We thus mutually agreed to postpone the visit to Khutsong for another day.

In my next try and getting to Khutsong, I would have to take a taxi from town to Khutsong. We had spoken on the phone and he had described which taxi I was supposed to get and where I would have to get off in Khutsong. I was a bit anxious with this because I had never been to Khutsong by mini-bus taxi before, and I had only been there once. Upon meeting Ma-asie at the taxi rank he wasted no time in telling me about Khutsong. The first place we went to was Khutsong Stadium where he told me the role played by that space during the demarcation riots. Next site we drove to was a recent sinkhole. It was here in his car that we preceded with the interview.

Through Ma-asie I was able to travel with safely through the township, meeting people and being introduced to people. It was also through Ma-asie that I got the opportunity to meet the other participants of the study.

1.6.4. Research Participants:

The first introduction of participants I had with were five young men who gave me their names as: Thaphelo, Kagiso, Sizwe, Themba and Mzwandile. These young men I had met through Ma-asie. The young-men all resided in Khutsong Township with their families. All of them indicated to have grown up in Khutsong. They also all indicated to being unemployed but did indicate to casual or temporary employment now and again. After our conversations regarding youth unemployment in the township, Ma-asie wanted to show me this by seeing how many young people were sitting on the corners of the township. Upon stopping the car we walked to a certain group of young men who were sitting in one of the many corners of Khutsong. The group seemed to know Ma-asie as they talked with him freely. I introduced myself to them and after explanation of my research project; the five young men were very interested in the research and an interview. Although the participants were willing to talk they were reluctant to be recorded as such the conversation was unrecorded with me taking notes. The interview process turned more to be a conversation but I tried to keep structure by engaging participants with open ended questions.

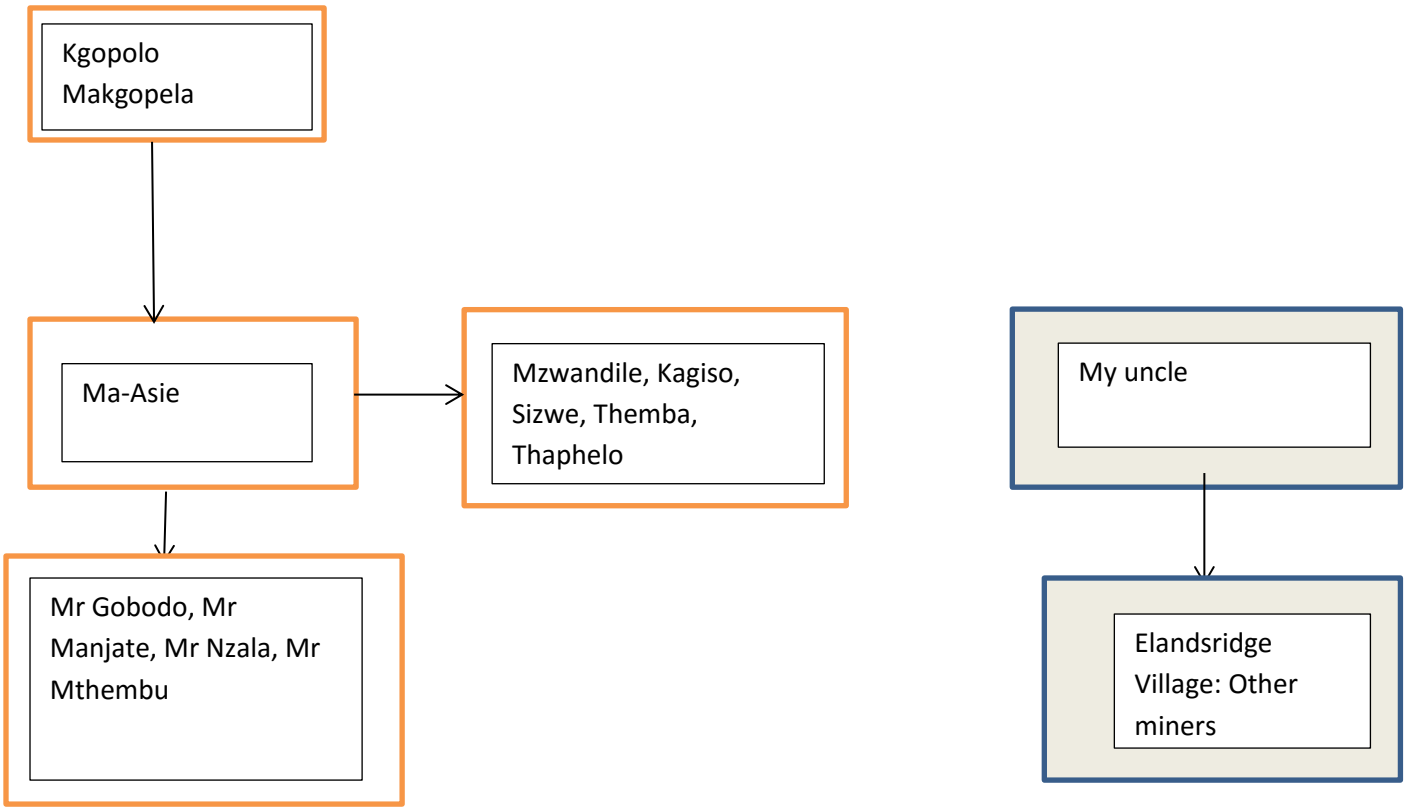
Ma-asie next introduced me to Mr Vuyisile Gobodo, Mr Fernando Manjate, Mr Sibongiseni Nzala and Mr Alson Bongani Mthembu. On our first introduction the gentleman were in a meeting, after I had introduced myself and the purpose of my visit I was then allowed to sit in the meeting. Upon listening to the meeting I found out that the gentleman were former miners who had been retrenched and had not been given their packages. They were now in a process of taking legal action against the mine, Doornfontein mine and the union, National Union of Mine Workers (NUM). I was informed by the gentlemen that they held these meetings weekly every weekend on a Sunday to discuss the issue they were facing. This would be their last meeting for the year as it was December and people were no longer available because of other obligations.

Even though the legal battle had no real relevance to the current study, the lives and experiences of the gentlemen proved to be very interesting and relevant to the study. After gaining consent, recorded interviews were conducted with each of the five men. The interviews were conducted in IsiXhosa and IsiZulu then they were transcribed to English.

My uncle, who I had previously mentioned, is a miner at Elasrand mine, residing at Elandsridge Village[2], which is about 15minutes away from Carletonville town by taxi. Through my uncle I had access to Carletonville and the mining community of Elandsridge Village. Through interactions with him and other people in the area who are working in mining I got a sense of the mining situation in Merafong. These conversations with my uncle and his colleagues were very important in gaining a perspective on the lived experiences and realities of miners in the region. Although not in Khutsong such perspectives assisted in getting a view of how people see the Merafong Region in relation to Johannesburg and other regions of the country.

[2] Elandsridge Village is a mine-owned settlement. Housing only available to those who work in the ElandRand mine.

Flow of communication networks:



1.6.7. Interviews and Observation:

A qualitative approach was most appropriate for the study, a "Qualitative research involves the studied use and collection of a variety of empirical materials that describe routine and problematic moments and meaning in individuals' life" (Azeem, M. Bashir, M et al: 2008; 38).The research tries to tell a human story, and thus tries to steer away from a managerialist and objective discourse. The study relied on face to face interviews and interactions and observation. The interviews were semi-structured in format. A qualitative approach also relevant for this study as the research seeks to explore and understand people's experiences and practices in the community of Khutsong. This approach is characterised by an in-depth process of interviews and observations amongst other things which can provide a deeper and broader understanding of both individuals and groups (Pierce: 2008).

The semi-structured interviews were conducted between myself and with Mr Vuyisile Gobodo, Mr Fernando Manjate, Mr Sibongiseni Nzala, Mr Alson Bongani Mthembu and Ma-Asie. These were supplemented with the group interview done with Thaphelo, Kagiso, Sizwe, Themba and Mzwandile. The interviews conducted for the "Peripheries Project" with Tsekiso Diniconyane and the Principal of CarletonJohn High School were also used for the study.

1.6.8. Limitations:

Safety in the township was an issue. Khutsong had experienced some difficulty in recent times. There was first the demarcation protests which created violence throughout the whole township but recently at the time of the interviews which was during the months of November and December (which was when I was busy in the area) there had been mob attacks in the township which resulted in people losing their lives. This had raised tensions in the area.

As a researcher in the area my status as a visitor was very clear to onlookers. To combat this for the duration of study, I travelled to Khutsong by mini-bus taxi where I was met by Ma-Asie at one of the taxi ranks in Kutsong. Ma-Asie was instrumental as he provided me with tour of the area and provided a narrative. Ma-Asie accompanied me in all the visits to Khutsong, Of course this posed a limit in that when Ma-Asie was not available then my field work had to be postponed for a day when he was available.

I also experienced financial difficulties which meant fieldwork had to be cut short. The researcher had to board two mini-bus taxis to get to Khutsong. The financial cost of travel per day was R 48 to the researcher. This greatly limited how many times the researcher could have visits to Khutsong.

As a researcher in the area I was also aware of the power dynamics that were at play; Mosoetsa (2011) in her research comments on her own awareness of the dichotomy between the researcher and informant which often separates researcher from subjects. But as the research participants got used to me it became easier to conduct the interviews.

It was important for the interviews conducted to not raise the expectations of the participants. As such I made it clear from the start what the research was about thus avoiding expectations. As Mr Vuyisile Gobodo, Mr Fernando Manjate, Mr Sibongiseni Nzala and Mr Alson

Bongani Mthembu were also going through a legal case against NUM, it was important I separated the current research with that issue. During the interview process it was important that I steered interviews back to topic of research when participants went off-track. Ultimately an open mind, willing to learn from participants helped with the success of the fieldwork. Most of the travelling and visitation in Khutsong mainly took place in Maxhoseni. The informal settlements of Khutsong were not visited.

The lack of female participation in the research posed another limitation to the study, although there is the principal of CarletonJones High School, there is a lack of female representation in Khutsong. There were interactions between the researcher and females in Khutsong for purpose of the study but these were rather conversations rather than recorded interviews. I do believe those interactions though not recorded or structured did inform the direction of the research. The themes that came out of such interaction became points of further investigation.

1.6.9. Conclusion

Marikana acted as a catalyst in the formulation of this study. Using Marikana, I was then able to start probing areas of research interest. Using Khutsong Township as a case study allowed the research to look at issues of resilience and gold mining, thus Khutsong could provide the study with the contemporary understanding and experiences of people in Gauteng. The interviews helped shape the story that is Khutsong.

Chapter two

2. Literature Review

2.1. Introduction:

This chapter reviews several bodies of literature relevant to the research project. The first section of the literature review looks at the concept of resilience; here a contextualisation of the concept is presented. This is important as resilience as a concept is complex with different understandings and definitions. Relevant themes under resilience are looked at, this seeks to present the current debates in the field of resilience and in the process provide the stance of the research. The second section of the literature review looks at the city and vulnerability. The chapter then ends of by looking at the history of African migrancy and urban experience in Gauteng.

The main point to bring across here is that the resilience of individuals/or households for a space such as Khutsong and Carletonville is informed by the urban experience. The history of urban uncertainty experienced by the African body still regulates people in their understanding of the city around them, but that uncertainty also informs people's resilience strategies for mining towns such as Carletonville.

2.2. Resilience

The notion of resilience started in ecology and was first defined by C.S Holling in 1973. His classical paper *'Resilience and Stability of Ecological Systems'* was very important in kick-starting the debate and exploration around the concept of resilience. Walker et al (2006: 10) write that the "purpose of the paper was to describe models of change in the structure and function of ecological systems". In the paper Holling (1973) first introduced resilience as "the persistence of relationships within a system and is a measure of the ability of these systems to absorb changes of state variables, driving variables and parameters and still persist" (Holling: 1973; 17). Holling and Gunderson (2008: 28) define resilience as "the magnitude of disturbance that can be absorbed before the system changes its structure by changing the variables and processes that control behaviour".

Since 1973 the concept of resilience has grown out and has been applied to other fields outside of ecology, Folke (2006) mentions the work of anthropologists Vayda and McCoy (1975) who used the term in their work in anthropology to challenge the use of the concept of culture as an equilibrium-based system, as had been done by Rappaport (1967). There are now many different definitions of this concept which has made work around resilience daunting but one finds that many of the definitions are in relation to their specific field.

Kirmayer et al (2009) summarises the use of the concept in psychology and psychiatry saying, , "In psychology, resilience is generally defined as an individual's ability to overcome stress and adversity" (Kirmayer et al: 2009; 64). The above statement further illustrates the inroads made by resilience and how different fields have owned the concept and have used it in their own understanding and to better describe the world around them. The usefulness and perhaps the wide range use of this concept relates to its relevance to the world we see but to how systems operate. Perhaps scholars have also gravitated toward resilience as a concept and as a framework in that it allows the opportunity to work with systems that look to work with the future in whatever form it may come instead of a perspective of trying to predict the future (Holling: 1973; Folke: 2006). This idea from Holling (1973) represented a shift of thought away from the obsession with the control and prediction of things in the system and the world but to a more open approach that is not only more flexible but sustainable. What the definition from Holling (1973) and ideas behind it also point to a shift away from an equilibrium centred view.

Holling (1973: 2) criticizes the equilibrium centred view as being "essentially static and provides little insight into the transient behaviour of systems that are not near the equilibrium." Folke (2006: 253) also notes that "a lot of work on resilience has focused on the capacity to absorb shocks and still maintain function." Folke (2006) carries on writing that this single equilibrium view "has substantially shaped contemporary natural resources and management with attempts to control resource flows in an optimal fashion". This control mind-set is not surprising in that resilience was coming out of the late 1960s which saw work by scholars such as Paul Ehrlich's (1968) *Population Bomb* and Gareth Hardin's (1968) *Tragedy of the commons*. What is clear from these books was the obsession with controlling population growth and the worry about resource depletion.

The resilience framework gets its popularity in that it is not just a framework but a way of thinking (Holling: 1973; Folke 2006), it can be used for guiding and organising thought and it is in this broader sense that it is of much value for analysis (Folke: 2006).

2.2.1. Engineering vs Ecological Resilience

Picking up from the arguments above and expanding them further, what is also clear from the definitions around resilience is the stance taken by the scholars around the debate around a single centred equilibrium of resilience or the multi-centred view of resilience. The single centred equilibrium Holling (1973) termed as being 'engineering resilience'. Pimm (1991: 13) defined engineering resilience as "the rate at which a system returns to a single steady or cycling state following a perturbation." Of course engineering resilience as demonstrated by the definition by Pimm "assumes that behaviour of a system remains within a stable domain that contains this steady state" (Holling et al : 1998; 10). I personally do not agree with the single equilibrium view of a system as I do not believe that we can say for all systems that there is a single state. This is a rigid view overlooking the existence of a multitude of states that could exist and does not give much room for the system to be flexible. A big focus put by engineering resilience is on the predictability of the world and being close to a stable known state and does not give much room for change or a shift (Folke: 2006). Folke (2006: 260) rightly states that the "resilience approach is concerned with how to persist through continuous development in the face of change and how to innovate and transform into new desirable configurations." I think it is important to take out here the ideas around transformation and innovation as this really speaks to how resilient systems are in times of a disturbance.

Ecological resilience, Holling et al (1998: 11) defines as the "measure of the amount of change or disruption that is required to transform a system from being maintained by one set of mutually reinforcing processes and structures," "Ecological resilience stands on the grounds that there are alternative stable states that a system can be in (Holling et al: 1998; 11). These two types of resilience (engineering and ecological) are off a "different end of a continuum to another" (Weakley: 2013; 44) or to use Holling et al. (1998: 11) "reflect different properties". Weakley (2013) argues that ecological resilience moves towards transformative resilience, while also sticking or maintaining concept of a "system being in a state of equilibrium, thus grouping it with equilibrist resilience" (Weakley: 2013; 44).

When taking these concepts into my own study I am also of the view expressed by Weakley (2013) that there are problems with an equilibrist approach. Urban systems or communities are rarely in a state of equilibrium but rather "are in a constant state of evolution and change" (Weakley: 2013: 43). This is important for communities such as the one I am observing (Khutsong) whose residents are not only in constant negotiation with the state but are in a constant motion of finding ways to better their lives.

What ecological and engineering resilience demonstrate is highlighted by Weakley (2013) where the pre-requisite is that a system should collapse. In a 'stable' system or one that has not yet collapsed it is hard to see the use of these concepts thus "it is important to recognise that is possible for systems to gradually change to more desirable states, and that a total collapse is not always inevitable" (Weakley: 2013; 44). What this must not take away though is that in most cases as illustrated by my study a system does not have to experience collapse to push it toward change or a shift but we must recognise that there must be a push factor and one strong enough to warrant or force such a shift or change.

2.2.2. Social –Ecological Systems

Many scholars recognise the human- nature relationship (Adger 2000; Adger 2005; Folke,2006; Gallopin, 2006; Walker et al, 2002; Walker et al, 2006;). This recognition of the connection between human/social life and nature is very important in not just trying to understand these systems but also for a holistic understanding of the whole system. Social – ecological systems will also here be referred to as SES. Gallopin (2006: 294) defines SES "as a system that includes societal and ecological subsystems in actual interaction", he goes on to state that "An SES can be specified for any scale from the local community and its surrounding environment to the global system constituted by the whole of human kind and the ecosphere" (Gallopin: 2006; 294). Walker et al (2002) note that "…the nature of cross-scale interaction means that human stressors cannot simply be removed as human-nature relations are increasingly complex and generate global as well as local and regional ecological impacts". Weakley (2013: 45) notes that "this shows that anything can affect anything else, a fact that is becoming more and more apparent with globalisation and global phenomenon, such as climate change and international economic crises". For Weakley (2013) there is only one SES which is the world. Global economic changes and developments have

affected the competitiveness of the South African gold mining sector and contributed to the decline in employment in the sector.

"In a resilient social-ecological system, disturbance has the potential to create opportunity for doing new things, for innovation and for development (Folke: 2006: 260). This presents a shift of the negative view that disturbances always bring hardship; the new changes in a system could help it excel. Berkes and Jolly (2001) in their study Adapting to Climate change: Social – Ecological Resilience in a Canadian Western Artic Community further illustrate this interaction. By showing the effects of climate change on the communities, which have had to change and adapt due to changes in the nature/environment around them. What this study also highlights is the relationship between global – local interaction, showing how a global phenomenon is causing shifts and changes at a local level.

2.2.3. Adaptive capacity

"Adaptive capacity is an aspect of resilience that reflects learning, flexibility to experiment and adopt novel solutions, and development of generalised responses to broad classes of challenges" (Walker et al: 2002; 19). Gallopin (2006) argues that there is a link between vulnerability, resilience and adaptive capacity, noting that they are "relevant in the biophysical realm as well as in the social realm" (Gallopin: 2006; 293). Adaptive capacity has its roots in biology and the natural sciences (Gallopin, 2006; Smit and Wandel, 2006). "Adaptness is not a generic property, but it refers to a certain environment or range of environment, and different organisms, different populations, or different species are adapted to different environments" (Gallopin: 2006; 300). Adaptive capacity then is very specific and will vary depending on space and time (Smit and Wandel: 2006), "A system's adaptive capacity and coping range (one feature of capacity) are not static. Coping ranges are flexible and respond to changes in economic, social, political and institutional conditions over time" (Smit and Wandel: 2006; 286). Berkes and Jolly (2001) go on to define adaptive capacity as "the ways in which individuals, households and communities change their productive activities and modify local rules and institution to secure livelihoods" (Berkes and Jolly: 2001; 19), this is the definition I will be using in my study. Weakley (2013) highlights the learning capability of the different players, whether be it community members or outsiders such as city officials. "Information is vitally important in the ability of urban systems to

learn. Here, the two keys of access to information, as well as collection and representation of case – specific and up to date data to inform adaptation and development"(Weakley: 2013; 45).

The above-mentioned arguments and ideas direct the research as to the different complexities and how resilience plays out in a space such as Khutsong. Important to grasp from here is the statement from Folke (2006: 260) that the "resilience approach is concerned with how to persist through continuous development in the face of change and how to innovate and transform into new desirable configurations". This is important to the theme of the study which is around 'persistency through continuous uncertainty'.

The resilience concept, especially the argument around the complexities of the term adaptive capacity helped shape the methodology of the study. The interview method, which was utilised for the study, is important at it is one where the results from participants reflect their individual resilience or adaptive capacities. Of course all of this is in the context of the post-apartheid urban conditions of South Africa highlight not only the role of the city but the resilience strategies utilised by inhabitants of the city.

2.2.4. South African urban spaces:

This section seeks to deal with the city and urban spaces in South Africa and with it the factors that impact on and shape our South African cities. Such a theoretical analysis is important as it allows for an opportunity to see where our study site, Khutsong, fits in.

As Parnell (2005 comments "It is my contention that persistent poverty, inequality and underdevelopment in the post-apartheid city is the outcome of a misplaced understanding of the dynamics of human settlement with overall developmental agenda of the post-apartheid state, especially the local state" (Parnell: 2005; 22). Thus in order to redress such inequalities first step would be to understand these dynamics of human settlement. Another factor is that these inequalities are responsible for the huge disparities in the living standards between people and often these disparities are segregated in terms of race and class, as "past policies of segregation and discrimination have left a legacy of inequality and poverty" (Woolard: 2002; 6). Drimie and van Zyl (2005) in support of the above statement contend that in South Africa, poor people tend to be most vulnerable to environmental disturbance because they

have few resources to cope with a disaster. In South Africa poor people tend to refer to the previously disadvantaged who are most likely to be black African South Africans.

2.2.4.1. Poverty and Vulnerability:

Variables such as age, socio-economics gender etc., have an importance as they can determine how people cope with certain risks. In terms of income levels for instance Wisner and Luce (1993) highlight that persons at the same level of income do not suffer equally in disaster situations nor do they encounter the same handicaps during the periods of recovery, thus even within the same income category coping capacities can be different. The last point mentioned about recovery also then suggests something about the importance of the resources available to households or people in the aftermath of a shock.

Birkman (2006) refers to vulnerability as an inability to cope with risks, shocks and stress. Thus those that cannot cope are more vulnerable. This definition has a focus on the aftermath of a disaster or shock. Blaikie et al (1994: 9) on the other hand define vulnerability as "characteristics of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impact of natural hazards". This definition although similar to Birkman (2006), places emphasis on pre-disaster through to post disaster and thus looks at coping capacity as being an on-going process.

The Global Environment Outlook 3 cited in a report by the Department of Environmental Affairs and Tourism (2006: 274) defines vulnerability as being "the interface between exposure to the physical threats to human well-being and the capacity of people and communities to cope with those threats". This definition stresses the inability and difficulty of people in the low economic class to cope with hazards they may face.

It is often difficult not to associate poverty with vulnerability as in most cases those poor people are the ones most vulnerable, and disasters bring to the surface the poverty with characterizes the lives of so many inhabitants (Hardoy and Satterthwaite: 1989; 203 cited in Wisner and Luce: 1993). Hutton and Hague (2004) on their study on river-bank erosion which displaces people in Bangladesh highlight in their study that the capacity to respond to environmental threats is a function of not only physical forces which affect people but also of underlying economic and social relationships which increase human vulnerability to risks –

or make them more resilient. Other authors however dispute this poverty-vulnerability connection. Drimie and van Zyl (2005: 9) state that "vulnerability is not the same as poverty". Vatsa (2004: 10) also lends her support by saying that "poverty is a static concept, an ex post state of being, measured in terms of a minimum level of income and consumption. Vulnerability on the other hand, is a dynamic concept, characterized by changes in socio-economic status, and refers to an inability to cope with risks, shocks and stress". Few (2003) also sees the two concepts as being different, with poverty being a social phenomenon separate from vulnerability, which is a natural phenomenon.

Societal inequalities still persist in places such as Khutsong but the vulnerability of the region is further compounded by the current decline of mining. Although the establishment of Khutsong, the gold mining economy and the subsequent migrant economy that was to develop in the region has its roots in apartheid laws such themes still seem to play a role in shaping contemporary Khutsong and the rest of Merafong. This links with final section of literature tackling migrancy and urban experience in Gauteng.

2.4. Mining and figure of the migrant:

Achille Mbembe and Sarah Nuttall (2004) in their article *'Writing the world from an African metropolis'* present an informed view around the figure of the migrant. It is this paper that has inspired my thinking around mining towns/communities, "the privileging of surfaces and visuality conceals the ubiquity of the metropolitan form. The case of Johannesburg clearly shows that one of the characteristic features of a metropolis is an underneath " (Mbembe and Nuttall: 2004; 363). Thus forgotten communities and specifically the 'figure of the migrant' in post- apartheid Gauteng, which have been instrumental to the growth and prosperity of the region now face complex a situation, "living in places and circumstances not of his or her choosing, the migrant worker is constrained to experience the metropolis as a site of radical uncertainty, unpredictability, and insecurity" (Mbembe and Nuttal: 2004; 363). It is around these uncertainties, unpredictability and insecurity that I wish to insert my work, because for me it raises important questions then that under such conditions how do these communities and people locate their everyday life and what is their everyday experience of the city.

Macmillan (2012) in his paper states that"Mining now makes only a small contribution to the economy of Johannesburg, and the surrounding province of Gauteng, although the city has

not cut its links with mining and continues to be a major financial, commercial and service centre for mines throughout the region" (Macmillan: 2012; 546). Clearly despite its decreased economic influence, the mining sector still seems to have a lot of psychological power over people. This study looks at the mining history particularly in Zambia and South Africa showing the uncertainty and impact of production, the article (even though not a major scale) shows the tug of war between the state and private enterprises who might have a stake in the resource.

2.4.1. History, migrancy and Gauteng:

Delius (1989) in his paper *Sebatakgomo: migrant organisation, the ANC and the Sekhukhuneland Revolt* provides us with an informed view of the existence of migrant labourers in South Africa pre-apartheid and during the apartheid phase. Delius (1989) is aware of the the complexity of the migrant, thus avoiding the linear narrative that is often provided about migrant workers, especially those who were working in the mines of the Rand. The linear narrative follows the story that people went to work in the oppressive mines and had a terrible time there. Although this is very much a true representation of the life of mine migrants, it is also important to capture the complexity of migrant life for black bodies during that period, and even today. Bonner (1995) also disputes such a linear, simple view, explaining that such a narrative of push and pull "do not explain why they (*migrants) decided to set down roots and remain" (Bonner: 1995; 6).

Delius (1989) in his work illustrates the complexities that were involved with migrant workers by showing the important role that was played by rural chiefs in sending young men from the villages to go work in the mines and collecting funds from them, "In the decades immediately after the Boer War chiefs made regular trips to mining centres to visit their subject-not least of all to collect funds from them" (Delius: 1989; 2). Delius also remarks that "The resumption of economic growth in particular the expansion of secondary industry from the mid-1930s was accompanied by an increasing tendency for Pedi migrants, after a few years of service either on mines or in the suburbs, to seek more lucrative employment elsewhere" (Delius: 1989; 13). Thus the connection between the Pedi youth and the suburb show that despite time of uncertainty and difficulty, African men were willing to explore the urban landscape outside the compounds and mines.

When we deal with Gauteng and migrant life particularly those of the mines on the rand, certain things come up related to the urban experience and the uncertainty of it. Before 1923, there was a relatively low level of African urbanization (Maylam: 1990). It is thus impossible to tell a story of migrant labour in Gauteng during this period without the compound system. Mabin (1986) and Maylam (1990) are on the view that in the diamond-town of Kimberly there emerged the earliest form of labour control. But when it comes to early Johannesburg there was the availability of residency of African labours in the city outside of the closed compounds (Maylam: 1990). Inner-city Johannesburg and freehold townships such as Sophiatown, Alexandra provided an urban space for early Africans in Johannesburg and Gauteng but Maylam notes that "Spatial patterns and control mechanisms in early Kimberly and Johannesburg were largely shaped by the original material base of the two towns, the mining economy" (Maylam: 1990; 60), Bonner (1995) goes on to expand that in "The mid-1930s and early 1940s, it became apparent that a very large percentage of the African urban population remain in some sense or other migrant or at the very least, dubiously urban" (Bonner: 1995; 118).

Dunbar Moodie (1994) writing about mine migrancy in the 1980s noted that with the Sotho for instance there still existed strong dualities between urban existence and a rural home. The narratives of the Sotho working on the Welkom mines is one of home in the rural homesteads being kind and where the heart is while the city was a place of the 'white' men and work. Thus we see that pre-1994 many miners lived with this duality of existence of the two spheres of life and activity (Allen: 2003). Murray 1981 cited by Dunbar Moodie (1994) commented that the existence for most of the men of the mines involved in this circular migratory system had a plan. The plan was for the miner to "…establish his own household and to build up a capital base through the acquisition of land, livestock and equipment, to enable him to retire from migrant labour and to maintain an independent livelihood at home". In order to maintain this plan as it may Dunbar Moodie (1994) places emphasis on the role played by culture in providing meaning and understanding for the migrant workers:

> "…Through migrant cultures that both modified home realities and created mines lives appropriate for maintaining rural identities. One key to understand such cultures lies in the miners' stories and songs, rituals and relationships. These narratives and practices rooted in the social networks at various and shifting migrant cultures, both

> created and sustained meaning. Such meanings transcended and interwove the disparate strands of the cultures of wage labor and peasant proprietorship. Miners at work told each other stories about their homes and about their work. Stories full of advice and nostalgia" (Dunbar Moodie: 1994; 29).

The maintenance of this rural plan or linkage had ties to understandings of manhood and home in the rural space (Dunbar Moodie: 1994). Dunbar Moodie (1994) argues that migrant miners saw a strong link between manhood and having a homestead or 'umzi'. But we see now that such meanings and understandings have changed (Dunbar Moodie, 1994; Allen and Smit: 2003). These changes are very relevant to the current study. The people interwieved for this research in Khutsong are in many ways disconnected from their original homes; these disconnections come across in clear ways to the youth of Khutsong who have no relevance to the migratory existence or duality. Dunbar Moodie (1994) also saw such a disconnection with the young men in Pondoland who did not view manhood with the same ideas of a household or home in the rural space. With the older generation in the study, a home in the rural area still existed but because of unemployment could not look to build it to a stable homestead. What came out in Khutsong was different from the narratives of the miners in Elandsridge. For the men at Elandsridge the duality of home still existed very strongly with ideas and aspirations of home or a household in the rural space. The strong existence of such ties with the miners at Elandsridge Village is attributed to the fact that the people I spoke with were employed with a stable income. As many of them stayed in the mining quarters they did not have their families with them, their families for most were in the rural areas. This separation from family was different from Khutsong participants who resided with their families. These changes and disconnections that have taken place with the migrants have an impact on remittance behaviour.

2.4.2. Remittance behaviour amongst migrants:

The above-mentioned argument has strong links with the remittance behaviour of migrants. The duality of existence and ideas of a rural homestead keep people remitting (Dunbar Moodie: 1994). As shown by Collinson et al (2003) that marriage in men encouraged remitting behaviour. Age also plays role in the remitting behaviour of people, with older men more likely to remit more than their younger counterparts because they have a higher chance of returning to the rural homestead (Posel: 2003). Dunbar Moodie (1994) comments that "wives remained faithful to their husbands (or atleast they remained in the marriage) and

husbands continued to remit money home, because together they were building an umzi". Remitting also became a way for men in the mines to stay away from 'town women' who were seen as competing for the money that should be sent back home (Dunbar Moodie: 1994). During the 1980s there are many accounts of wives making journeys to the mines to confront men who had stopped sending money back home (Dunbar Moodie: 1994). Strong links to a rural homestead or another space impacts remitting behaviour. Mr Manjate sent money back home to Mozambique as he had a wife and children back home. In Khutsong he is alone thus it made sense for him to remit back, but this is different from the other men who had no strong links to a rural home or any other space.

The reasons for continued remittance are important and shed light on the behaviour of those involved in circular migration. The main reason for remittance that has received much scholarly attention has been altruism (Posel: 2003). Altruism indicates that "remitting is part of fulfilling family obligations (Maphosa: 2007; 125). Posel (2003) argues that even within the household, migrants may not be remitting equally to everyone. Beyond this Posel (2003) argues the important point that "migrants may view remittances as an investment in the rural household and in rural production and expect that this will offer insurance against unemployment or provide a long-term investment" (Posel: 2003; 166). She further goes on to state that:

> "..the geographical and institutional separation between the migrant and rural increases the probability that the migrant will develop new ties in urban areas that compete with the needs of kin in the rural household. One would therefore expect that when migrants remit income it could be both out of a concern for the rural household and out of other considerations that further serve the migrant's interest to do so. The more precarious the mgrants's urban situation in, for example, or the higher the returns to rural investment, the greater the incentive would be for the migrant to transfer income and thereby retain rural ties" (Posel: 2003; 175).

This statement takes into account that migrants view their rural homes as places of resilience, when things go bad in the urban environment. Campbell (2008) further comments that:

> "After all, migrants remit mostly to satisfy short-term requirements in the household of origin. Those that are invested in long-term projects, such as buildings and farms, are made with a view towards individuals or household developments. They are

therefore directly or indirectly associated with the migrant's return to the source" (Campbell: 2008; 95).

The role of remittances to the rural household are also important, as much as they play a part in maintaining linkages and family bonds they also have a financial role on the household (Campbell, 2008; Dunbar Moodie, 1994). Taylor (1992) argues that remittance helps in 'loosening up budget' of rural homesteads thus giving them the opportunity to do other things with the money. But with all of that Maphosa (2007) states that "…a small proportion of remittances is used for savings and productive investment such as income and employment generating activity" (Maphosa: 2007; 125). Remitted income stays at a household level hardly making its way to lifting family from poverty or formal system (Gupta et al, 2009).

There is also much scholarly work which writes about the informal channels of remittance used by migrants (Gupta et al, 2009; Maphosa, 2007). Maphosa (2007) comments that 'The official channel for sending remittances depends of a number of factors, such as existence of banking and other financial institutions, the speed, efficiency, and security of the system and the educational status of the sender and the recipient" (Maphosa:2007; 125). The informal channels of sending goods and money to one's family, especially with regards to cross-border remittance has given rise to cross-border transport networks who act as the delivery middle-men of the goods and money (Maphosa : 2007). For the South Africans I spoke with in Elandsridge they utilized the formal channels of sending money such as banks.

2.4.3. African urban experience and uncertainty in Gauteng:

In order to really capture the uncertainly of life for urban Africans in South Africa pre and during the apartheid era, it is important to look at the experiences of African females during the period of the 1920s, 30s and 40s. Even though my research per say is not focusing on the female experience I do want to capture the history of the African migrant in the urban environment and moments that changed or altered such an existence. We see that a great deal of the literature on the migratory system in Gauteng and South Africa places special attention to the male black body and as Ramphele (1989: 394) notes that "women have been defined out of the whole migrant labour system, both in terms of access to jobs and in terms of most analysis of this system, which deal largely with women as dependents of males migrants". The experience of African women during the 20s and 30s and 40s in Gauteng contributed to

the African urban experience and to the migratory system, “women often came independently to the town, sometime because of broken marriages and were liable to settle more permanently than men” (Bonner: 1990; 117). The impoverishment of the rural areas during the 1920s and 30s saw a large increase in the number of African women who left the rural areas to go to the cities such as Johannesburg (Bozzoli: 1991; Eales: 1989; Wells: 1993).

African women brought a sense of stability and permanency of African life in the urban environment. In Johannesburg like in many other cities in the country during the aforementioned time period the presence of African women in the city encouraged ‘informal’ trades such as beer brewing and prostitution. One of the reasons was also that in Johannesburg the domestic service was occupied by African men (Wells: 1993).

Very much linked with the experience of African women and still carrying on with the narrative of uncertainty of urban life are the squatter movements of the 1940s in the Rand, which also played a role in shaping African urban life (Bonner: 1990; Boner: 1995). “The key need which the squatter movements addressed was obviously affordable housing, but what is so often overlooked is their role in providing order and stability in a rootless and impersonal world” (Bonner: 1995; 126). As illustrated by Bonner (1990) that the squatter movement leaders had a great support base from the Africa women, “This dual role of providing houses and a measure of support of security and protection ensured the squatter leader intensely powerful support from women” (Bonner: 1990; 95).

It is important to understand the link between the history of migrancy and the South African urban experience as these have and continue to shape our cities. Carletonville and Khutsong are no exception as the region has been shaped by such a history. It is a history that shows that the city is and can be a precarious space for many, one that can include and exclude others. People such as that in Khutsong are shaped in their understanding of the urban space due to the ideas and history of their urban experiences informed by migrant labour and gold mining.

2.5. Conclusion:

Resilience and the urban experience of Gauteng bring to the forefront the idea of persistence of people through difficulty. This is important for the current research because we are

witnessing the continual resistance of Khutsong even though it is facing difficulty. The literature review gives a positive direction and support of the argument that the urban experience plays a part in peoples resilience. Such resilience is not homogenous but rather different from individual to individual. The resilience definition given by Berkes and Jolly (2001) that it relates "the ways in which individuals, households and communities change their productive activities and modify local rules and institutions to secure livelihoods" (Berkes and Jolly: 2001; 19), is the definition I will be using in this study.

The important questions that come out of the literature review relate to this 'persistence through uncertainty' earlier referred to. Is this resilience sustainable? What are the factors or forces that could impact negatively or positively to this? These are important questions that will be answered in later chapters of the research project.

The literature review suggests that the study is able to fill gaps in research related to small mining towns but also around how the history of these spaces influences resilience. I hypothesise that in Khutsong due to the history of gold mining and migrancy in the region this has impacted positively on the relationship people have with the space thus enhancing their resilience through continues long term hardships faced by the region.

Chapter three

3. Gold mining and Khutsong

3.1. Introduction

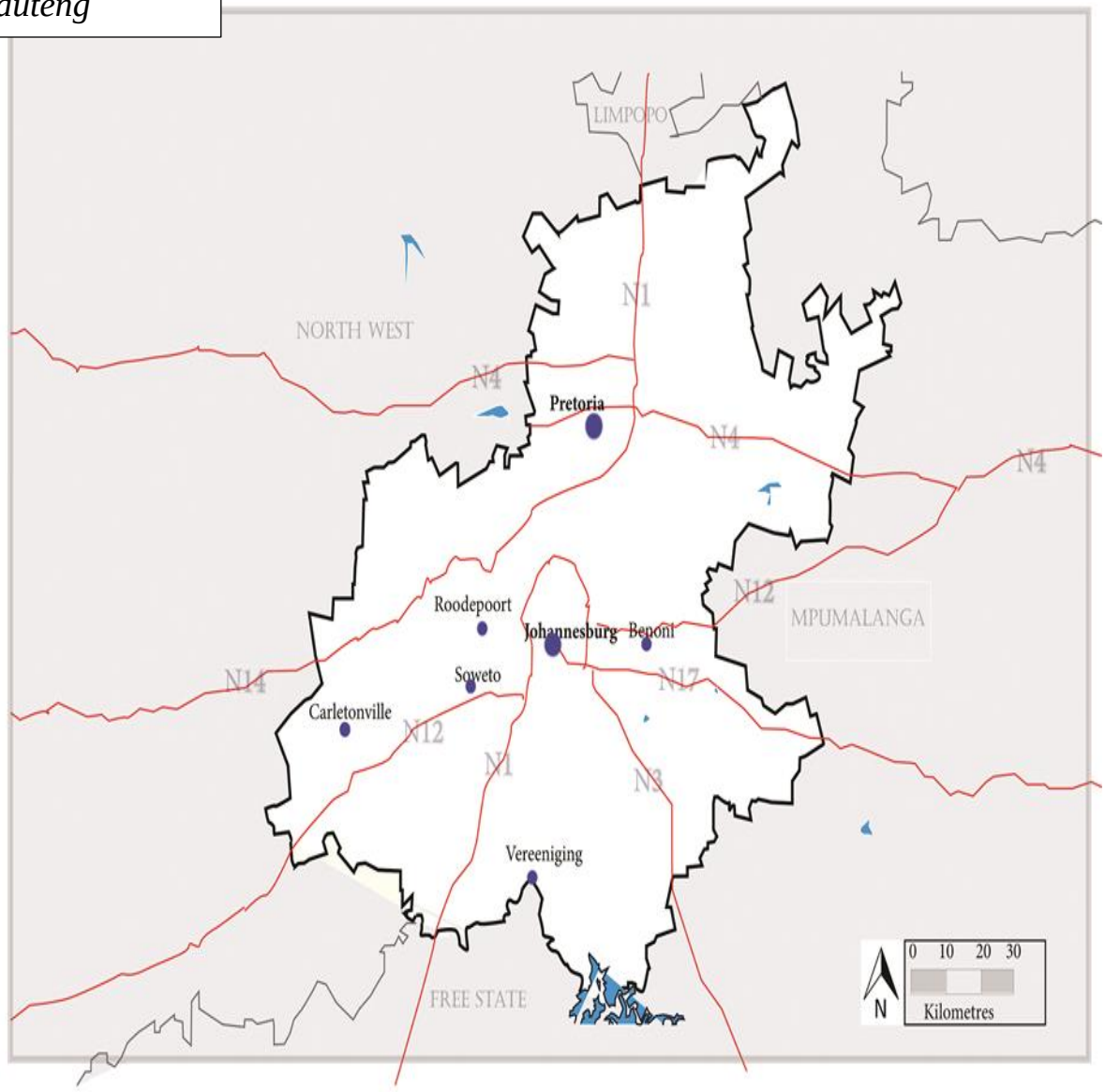
Khutsong is a very stimulating place for study for a number of reasons: because of its history, geography, economy and its uncertain present and future. What is of most interest for this chapter and research is the idea of uncertainty which is related to the existence of Khutsong in relation to gold mining in the region. With that said Khutsong has shown incredible resilience because even though Khtusong has and still continues to face difficulties related to the unstable environment, high unemployment, violence, lack of basic services in some areas; Khutsong as an urban area has continued to grow and attract people despite all these problems.

Gold mining on the other hand has played an important role in the establishment of Khutsong and other surrounding areas in Merafong (Johnston and Bernstein, 2007; van Eeden, 2010). It is also the current unstable state of the gold mining sector in the country that has contributed to the vulnerability of Khutsong. This chapter will delve into that providing a deeper understanding of gold mining in South Africa, how that has impacted Khutsong and the lived experiences in Khutsong.

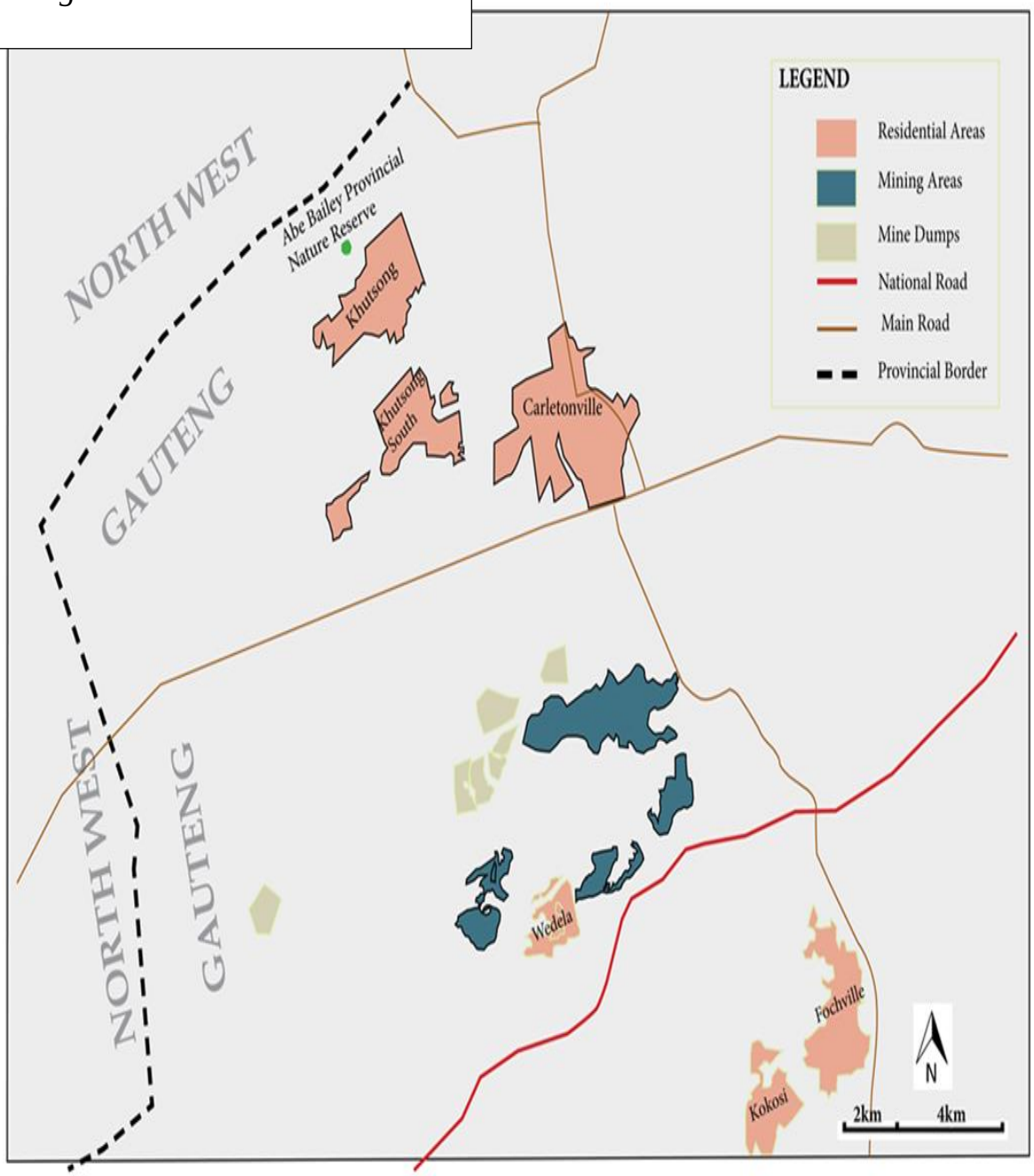
3.2. Background Information on Khutsong

Khutsong forms part of the Merafong City Local Municipality in the West Rand District Municipality of Gauteng. From 2005 to 2009 Merafong City was part of the North West Province; this followed the eradication of cross-border municipalities in the country (Misago, et al: 2010). Other areas that are also part of Merafong City Local Municipality include: Carletonville, Kokosi, Fochville, Wedela, Green Park, Oberholzer, Elandsridge, West-Driefontein, East Driefontein, Welverdiend, East Village, Leeuport, Elandsfontein, Doornfontein and surrounding farms. (Statistics SA: 2011)

Map 5: Map of Gauteng



Map 6: Map of Khutsong and surrounding areas



The history and development of Merafong City is closely linked to the discovery of gold in the area, which was around the 1930s. Since then gold mining has been and continues to be the main contributor to the economy of the area (Misago et al: 2010). According to Misago et al (2010), as of 2008 the mining contribution to the Geographic Gross Product (GGP) was 35%.

The discovery of gold in the area has not only shaped the economy but also the gender dynamics in the region, according to the population statistics of 2011 there were more males in Merafong than females, this is attributed to the fact that mining has a history of being a male activity, drawing males from all over Southern Africa. But in Khutsong this is not the case, as according to the population statistics of 2011 there appears to be slightly more females than males in the township. Unlike the other urban areas of Merafong, Khutsong attracts other people who are not just solely looking to work in the mines. The township also acts as a space were women can try to look for employment. The ratio of male and female sex in Khutsong as compared to the Merafong region further points to the idea of Khutsong declining as a space for mine workers. There is a decrease in the number of people in Khutsong who work in the mines, Moiloa (2012) comments that "Many of the people who are lucky enough to work permanently on the mines move from Khutsong to Carletonville" (Moiloa: 2012; 52).

Table 3: Merafong City population according to gender:

	Male	**Female**
Black African	93867	77030
Coloured	1076	1054
Indian or Asian	321	242
White	11456	11834
Other	437	203
Total	**107157**	**90363**

(Statistics SA: 2011)

Table 4: Khutsong population according to gender:

	Male	**Female**
Black African	30013	32059
Coloured	95	103
Indian or Asian	28	23
White	34	26
Other	66	12
Total	**30235**	**32222**

(Statistics SA: 2011)

Khutsong was officially formed in 1958 by the apartheid government, with the main purpose of serving as a 'black' township to the then all white and growing Carletonville. As in many narratives of the apartheid city the availability and supply of cheap labour to the surrounding areas was perhaps one of the most important contributors to the establishment and survival of Khutsong. Thus the location and development of Khutsong has multiple implications for its residents and probably evokes different notions of what it means to be in Johannesburg. Many of the residents of Khutsong work in Carletonville in varying jobs, some people work as far Johannesburg.

Khutsong is about 75 km from Johannesburg and 50 km from Potchefstroom; these are the closest big urban areas. The township is about 15 minutes away from Carletonville by motor-vehicle. There are mini-bus taxis that serve the route between Khutsong and Carletonville, most people use these minibus taxis to get to Carletonville. The mini-bus taxis cost R12 for a one way journey to Carletonville (making it R24 for a two way journey between Khutsong and Carletonville). For a community with high unemployment and low income this is a lot of money for a lot of people in the township. There is only one entrance and exit in Khutsong, another mark of township apartheid planning. Khutsong is divided into different parts, there is Mandela, Khutsong SP, Sonderwater, Hani, Khutsong Ex 3, Slovo, Khutsong Ex 2 and Khutsong South (Statistic SA :2011).

According to Statistic SA (2011), Merafong City has a population of 197 528. This has dropped from a population of 210 481, which was recorded for the 2001 Stats SA. There was no clear indication of the reason of the slight decrease in the population. According to the 2011 population statistics Khutsong Township had a population of 62 458.

Table 5: Merafong City population in 2001 and 2011

Merafong City Local Municipality	**Population**	
	Census 2001	Census 2011
	210 481	197 528

(Statistics SA: 2011)

Table 6: Population Statistics for Merafong City Local Municipality (2011)

Proclaimed area	**Population**
Carletonville	23 000
Welverdiend	2 708
Goudvakte	222
Khutsong	**62 458**
Fochville	9 497
Kokosi	26 467
Green Park	2 587
Wedela	17 928
Kokosi	26 407
Merafong City NU	7 031
Oberholzer	5 397
Letsatsing	1 160
West-Driefontein	2 857
East- Driefontein	3 876
Phomolong	823
East Village	3 968
Leeuport	5 494

West-Village	207
The Hill	1 060
The Village	698
Western Deep Level Mine	7 641
Southdene	2 229
Doornfontein	1 169
Elandsridge	2 498
Elandsfontein	2 892
Deelkraal Gold Mine	1 530

(Statistics SA: 2011)

Taking into consideration the population statistics of Merafong Municipality and Khutsong it is clear to the reader the interesting nature of Khutsong. The Merafong Municipality according to the 2011 Stats SA data the population is recorded 197 528 as the total population of all the towns that make up the Merafong Municipality. Of the 197 528, 62 458 (which is about 32%) of that population is in Khutsong. This puts Khutsong under immense pressure not just from a high population standpoint but also as a place to reside in and provide a livelihood for people. It would appear then from the 2011 population data that Khutsong appears as the centre of Merafong.

Thus even though Khutsong according to the 2011 statistics data has the highest population as compared to the other towns that make up Merafong Municipality, Khutsong has the lowest standard of living, lowest income and the education and unemployment level in Khutsong being lower than other areas of Merafong Municipality as a whole (Johnston and Bernstein: 2007). This is greatly alarming for a place with such a high population density. Perhaps to note one reason that has held back the progress of Khutsong in comparison with other areas in Merafong is the distance factor of Khutsong to the gold mines in the region. Khutsong, unlike places such as Wedela, which are purposefully very close to the mines, Khutsong is at a distance thus not only putting a strain on transport costs for those who work in the mines but a strain on being employed in the mines.

3.3. Ustable land in Khutsong

Khutsong, along with the rest of the area has always been plagued by unstable land, Mavungo (2011) states that "the dolomitic nature of the land which renders 90% of land in Khutsong unfit for human habitation is one of the causes for Khutsong's underdevelopment" (Mavungu: 2011; 81). The instability of the land dates back to the 1940s and 1950s, during this period the issue was so bad that it limited gold exploration in the area (van Eeden: 2010). It was during this period that the municipality of Carletonville recognised the magnitude of the problem and tried to bring it to order with the establishment of the *Far West Rand Dolomite Association* with the assistance of the *Council of GeoScience* (Johnston and Bernstein: 2007). But despite the unstable land Khutsong has continued to expand.

The municipality of Merafong had sent out warnings to residents and plans of relocation of the settlement were in place but community members saw this as another plan not to invest in Khutsong (Johnston and Bernstein: 2007). In the mayoral budget speech of 2008/2009 Counsellor D.D Van Rooyen mentions that the "dolomite situation in Carletonvile and Khutsong is really stretching council's repairs and maintenance budget" (Mayor Budget speech: 2008). On one of my visits to Khutsong, my guides after picking me up at the local taxi rank drove me to a new sinkhole, my guide (Ma-asie) was very keen that I see and record the damage caused by the sinkhole. The sinkhole was very big but luckily there were no houses directly affected by it, but there were houses around it and at the time of my visit I was told that the people in the houses around the sinkhole had been evacuated. The houses that were affected by the sinkholes had cracks in the walls. Next I was taken to a house that had been greatly affected by the unstable land, and half of the house hand sunk in and had been abandoned by its occupants. Such narratives of damage and loss illustrate the serous nature of the dolomite situation in Khutsong. The instability of the soil in Khutsong further extends peoples vulnerability and uncertainty of life in the urban environment. The photos below illustrate this vulnerability.



(Photo 1: House on a sinkhole with visible heavy damage to the walls, ceiling and floor. Source: Kgopolo Makgopela; 2013)



(Photo 2: The side of the house collapsing due to sinkhole. Source: Kgopolo Makgopela; 2013)



(Photo 3: A crack in the floor of the house as a result of sinkhole damage. Source: Kgopolo Makgopela; 2013)

3.4. Demarcation and violence

In 2005, the Constitutional Twelfth Amendment Bill was adopted in South Africa. This bill was to cut out municipalities that were cross-boundary in order to have these municipalities located in only one province. "A cross-boundary municipality refers to a situation where parts of a local municipality are located within the border of two different provinces" (Matebesi and Botes: 2011). Merafong City Local Municipality was one these municipalities implicated in this controversial bill.

There were clear indications from onset from residents to remain part of Gauteng, and not to be moved to the North West Province. The demarcation issue for Merafong was plagued with contradictions, miscommunication and mistrust (Kirsher 2012; Matebesi and Botes 2011; Mavungu 2011; Misago et al 2010 Moiloa, 2012). Syndey Mufamadi who was the minister for Provincial and Local Government at the time, announced that Merafong was to be incorporated and made part of North West Province. This announcement was followed by the Merafong mayoral committee which announcement that Merafong would remain in Gauteng, this was further supported by the portfolio committees for Local Government of both Gauteng and North West which recommended Merafong remain part of Gauteng. All of this was to no avail as Legislature was approved seeing Merafong transferred to the North West Province. With these mixed signals, "For local community members this was unfathomable and a sense that senior governing structure had already made up their minds became wide spread" (Moiloa: 2012; 86).

The main economic argument resisting moving to the North West made by the residents was that this move moved then from an economic centre (Johnston and Bernstein 2007; Moiloa 2012). There are also many residents who saw the incorporation of Merafong City into the North West Province as a political move and not about people or for the best of Merafong (Johnston and Bernstein 2007; Moiloa 2012). This created a strong atmosphere of distrust (which still exists today) and frustration with the government.

The incorporation of Merafong into the North West Province saw violence, and protests in Khutsong, the violence was aimed mainly toward the African National Congress (ANC) and state institutions. This was interesting as Khutsong had been an ANC stronghold. Many state institutions such as libraries, houses and cars of counsellors, buildings were burnt, looted or destroyed during this time. At the forefront of the protests was the South African Communist

Party (SACP), the Young Communist League (YCL) and the Merafong Demarcation Forum (MDF), the MDF was set up as a non-party aligned movement with the intention to represent the community (Moiloa: 2012). As part of the protest action against the demarcation, Khutsong residents boycotted the local government elections of March 2006. Merafong City was eventually re-incorporated back into Gauteng Province in accordance with Notice No.8 of 2009 of Cross-Boundaries Municipalities and Related Amendment Act, 2009.

The violence and strong protest action taken by Khutsong residents to the demarcation makes a strong case for the need of the residents of Khutsong to be involved within the economic dynamic dimensions of Gauteng. It also illustrates a sense of place for the residents of Khutsong. Residents wanted to remain in Gauteng because they envision their future and goals in Khutsong being aligned strongly with the Gauteng Province. The protest action against the demarcations assisted in the resilience of people by building social networks (Moiloa: 2012).

3.5. Gold mining in South Africa

The mining economy of South Africa was instrumental in not only moving the economy of the country from being Agricultural based but accelerating the industrial revolution, in the process making South Africa a powerful nation in Africa (Binns and Nel, 2002, 2003; Mantashe, 2008). The discovery of diamonds in Kimberly in 1870 laid a foundation to this revolution, the discovery of gold some 20 years later brought different dynamics especially to the Rand area, Demise (2010) is correct in stating that "the entire region of South Africa became integrated into a labour market area concentrated on the Rand" (Demise: 2010; 447). Gold was also important in its potential to attract foreign capital which was different from the diamond industry.

The South African 'Gold Rush' that swept across the Rand was very instrumental in the development of Johannesburg and Gauteng as we know it. Charles van Onselen in his paper *"Regiment of the Hills"- South Africa's Lumpenproleterion Army 1898-1920* does a great job in illustrating the criminal, migrant gang activity and settlement patterns that was rampart in the mine areas of the Rand. Other scholarly work by (Dunbar Moodie et al 1994, Allen,

2003) go a long way in bringing life to a period in our history and provides an understanding of life during that period. Recent work on the other hand by Harrison and Zack (2012) show the economic transition that Johannesburg was able to make post-gold mining.

Gold mining in South Africa has great importance as an employer and also contributing to the national economy but by its very nature a mining economy is a temporary one. Katzen (1964) documents the steady decline of gold in the early stages. Between 1911/12 gold contributed 19.6% to the national economy, but by 1928/29 this had fallen to 11.5% (Katzen: 1964).

In the 1920s gold employed a great number of people with over 200,000 men employed in the mines (Katzen: 1964). Now fast forward to the 1980s, the contribution of the gold sector to the national economy had dropped to 9.5% in 1981 then to 4.7% by 1993 (Nattrass: 1995). Even though gold mining employs a lot of people, those number have dropped considerably, in the period between 1987 and 1999 employment in the industry had gone from 564,452 in the earlier year then down to 237, 732 in the latter years (Stats SA).

Gold mining still remains a big part of the economy of contemporary South Africa but "mining now only makes a small contribution to the economy of Johannesburg, and the surrounding province of Gauteng" (MacMillan: 2012; 546). As from 2012, 142 201 people were employed in the gold mining sector (DME, Directorate Mineral Resources). As evidenced from the graph there has been a steady decline of people employed in the gold mine sector, between 2001 and 2012 there has been a 30% decline in employment on the mines.

Table 1: South Africa's Gold Mines: Employment

Year	Number of employees
2001	201 698
2002	199 378
2003	198 466
2004	179 946

2005	160 634
2008	166 424
2009	159 925
2010	157 019
2011	144 799
2012	142 201

(DME, Directorate Mineral Economies)

Gold mining production has also been decreasing; between 1996 and 2005 there has been a 63% drop in production in that period. The figures from the DME are from 10 years ago, and there is not indication of up to date information it would then be interesting to see current up to date statistics.

Table 2: South Africa's Gold Production 1996-2005

Year	Production
1996	798,3
1997	490,6
1998	465,1
1999	451,2
2000	430,8
2001	394,8
2002	398
2003	373,3
2004	337,3
2005	294,7

(DME, Directorate Mineral Economies)

3.6. Case of Khutsong and Gold mining

Van Eeden (2010) notes that as far back as the 1950s in Carletonville there was a great need amongst the officials to balance the local economy of the area; but that does not seem to have been worked out because the region is still largely a single industry area. The World Bank predicted that mine closures and impacts associated with that would bring crippling effects to local economies,

> "in many cases, the mine is the local economy's primary provider of income, employment, and service. In such a context, mine closure will have significant impacts on the well-being of the community. Such impacts are exacerbated in developing countries, where alternative economic activity may be more limited, and local government and communities often lack the capacity needed to help structure a development process that would provide a suitable alternative" (World Bank report: 2002; 1).

These ideas are shared by Marais who states that:

> "Impending mine closure inevitably has far reaching consequences for the mines, communities, mining companies and different government structures. In general, role players seem to be consistently ill-prepared to deal effectively with this final phase of the life of a mine, and invariably fail to generate post-mining economies" (Marais: 2013).

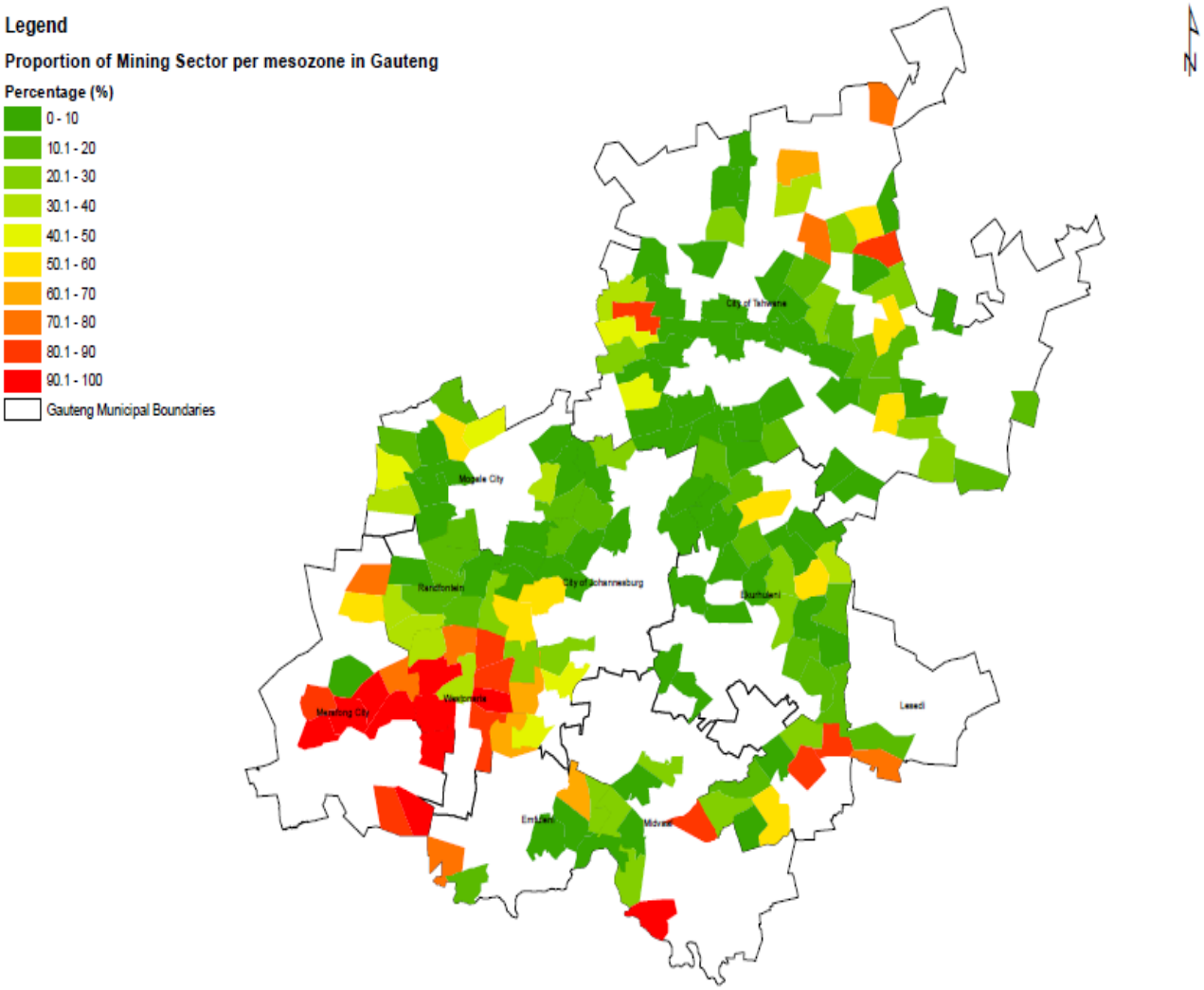
The link that binds Khutsong and its residents' to the mines is both a sad story and a fascinating one, it is worth to tell for various reasons as it is also what defined and continues to define Khutsong and the whole Merafong Municipality. The gold mining economy not only played a pivotal role to the establishment of Khutsong, its survival and one could say its current problems but the link and history of gold mining has been very important in how Khutsong residents see themselves in relation to the country, the Gauteng Province and their own community.

We know the impact that mining, especially gold mining had on the history and development of not only Gauteng but also South Africa. But Khutsong along with other gold mining regions of the country have reached a point of economic stagnation (Binns and Nel, 2002, 2003; Marais, 2006, 2013; Nel et al, 2003; van Eeden, 2010). The predicament that these

regions find themselves in is one of uncertainty, and survival. Khutsong is also caught up in that very same trap of suspended development. As previously noted, gold mining according to the 2011/2012 municipal IDP contributes 35% to the Gross Geographic Product (GGP) of Merafong City. Gold mining is also the biggest employer in the region. Merafong City, along with Khutsong finds itself in a situation whereby gold mining is the biggest and sole contributor to the economy of the region. Noted in the Merafong IDP is that there has been a steady decline in the production and contribution of the mining sector to Merafong. Thus the lack of a diversified economy in the region is putting it in a very awkward and uncertain future. The IDP documents point to a municipality that is aware of the dangers of such a position but that is also suspended in what do, it notes that "the dependency of this sector on international prices and exchange rate points to a need for economic diversification" (Municipal IDP: 2011/2012). The maps below go on to illustrate the different sectors and their proportion in the Gauteng Province; coming out very clear from the maps is the high proportion of the mining sector in the Merafong region as compared with the other sectors.

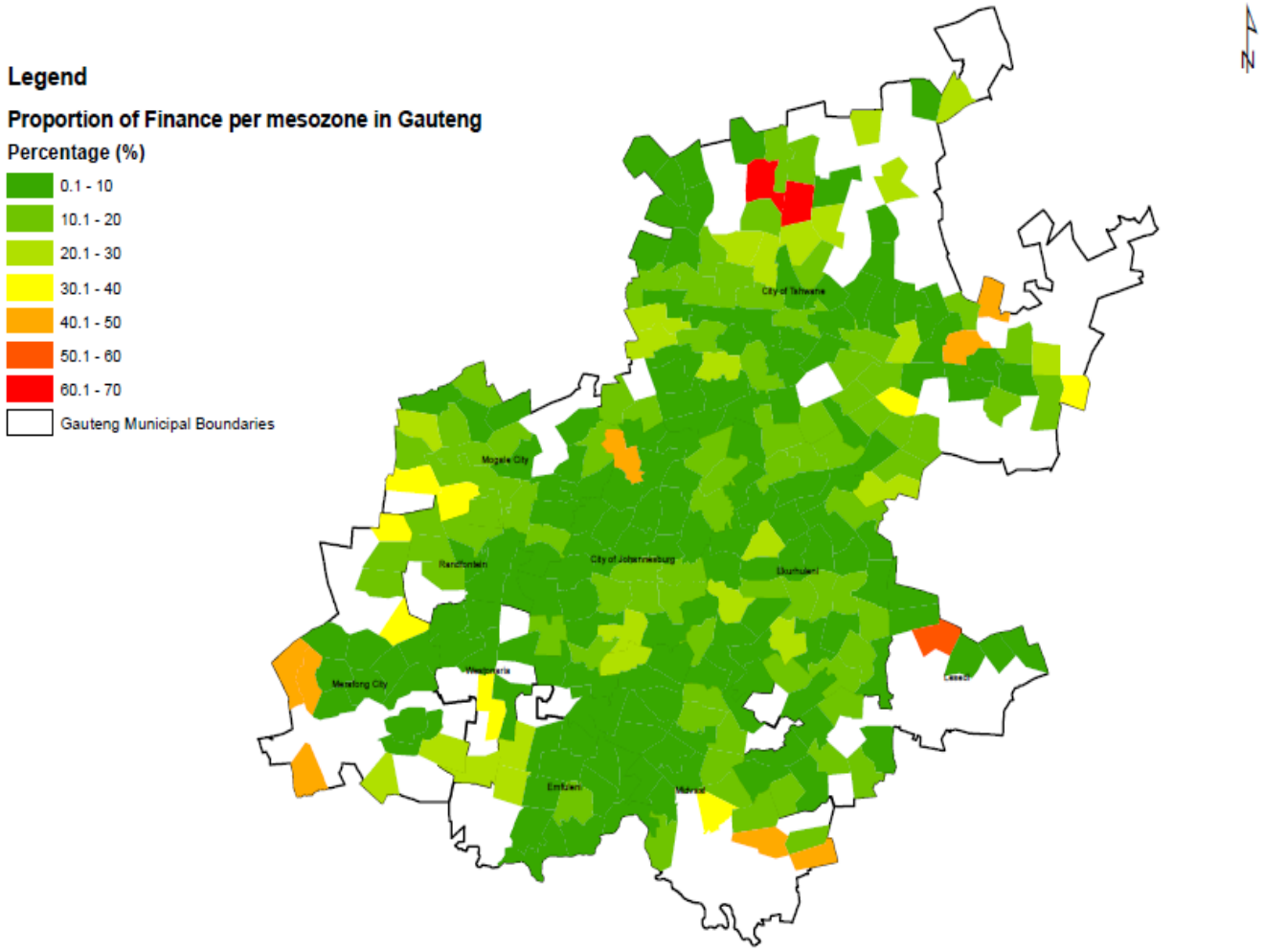
Map 1: Proportion of Mining Sector per mesozone in Gauteng

(GRCO: 2011)

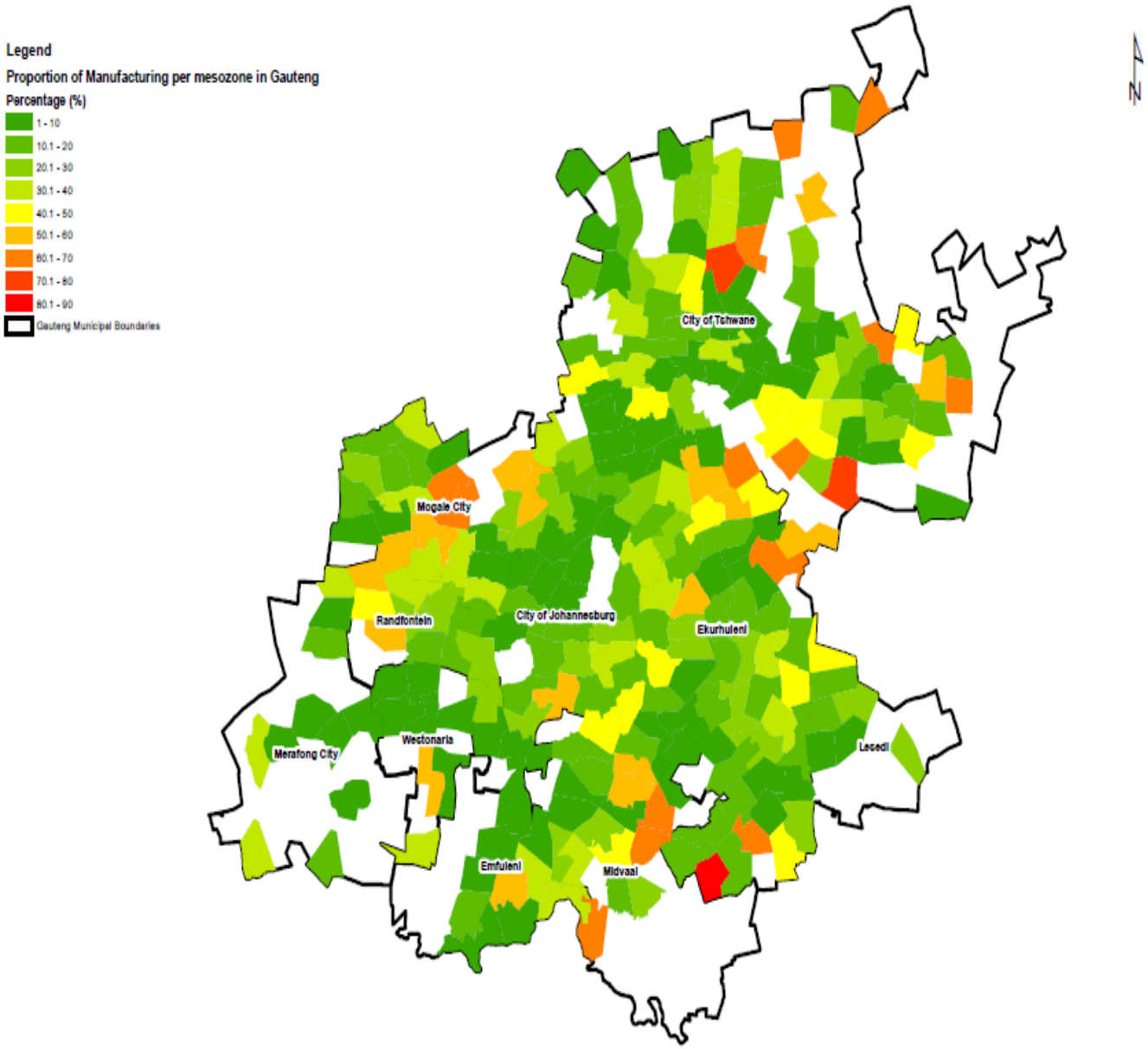


Map 2: Proportion of Finance per mesozone in Gauteng

(GCRO: 2011)

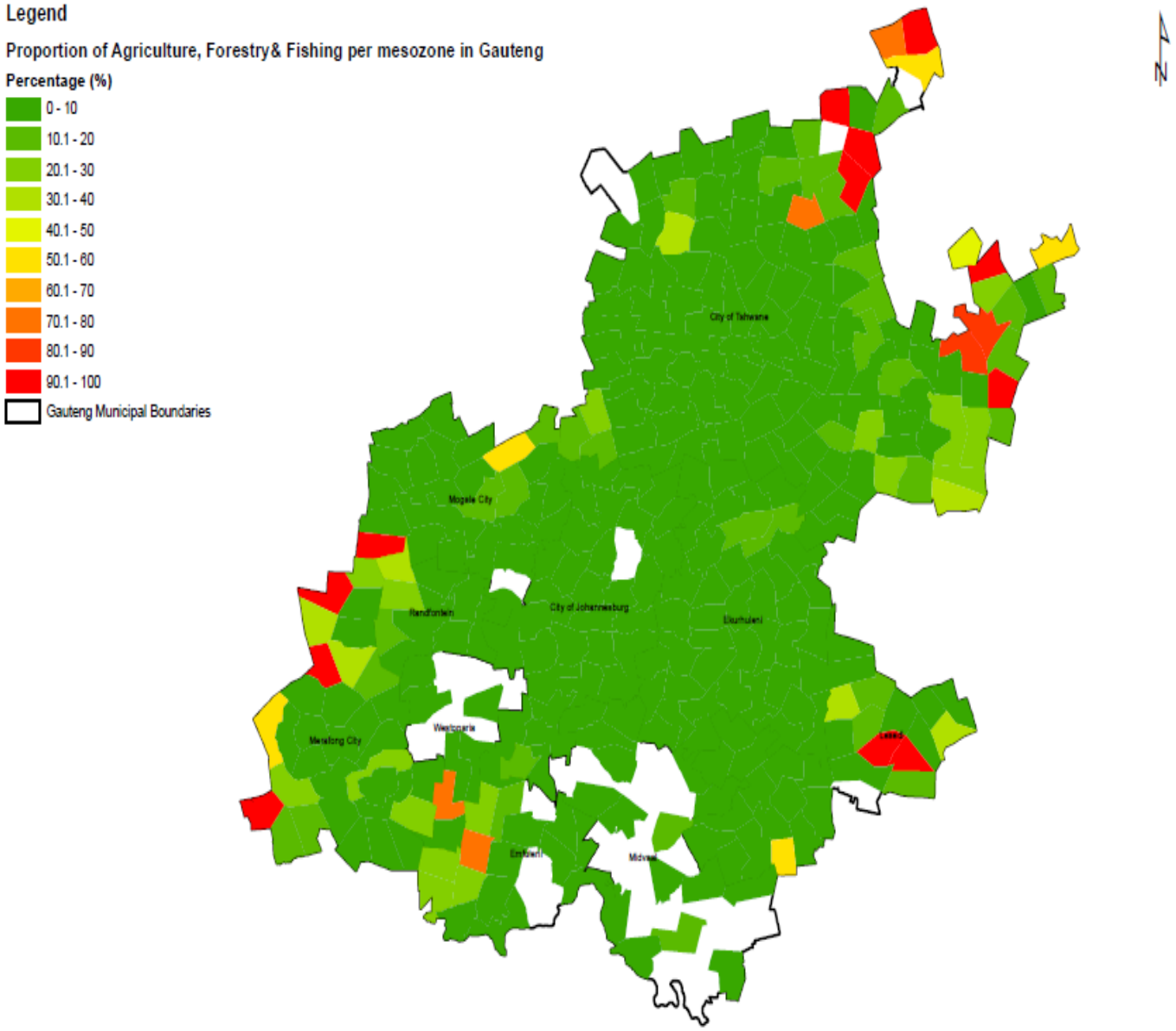


Map 3: Proportion of Manufacturing per mesozone in Gauteng


Legend
Proportion of Manufacturing per mesozone in Gauteng
Percentage (%)
1 - 10
10.1 - 20
20.1 - 30
30.1 - 40
40.1 - 50
50.1 - 60
60.1 - 70
70.1 - 80
80.1 - 90
Gauteng Municipal Boundaries
N
City of Tshwane
Mogale City
Randfontein
City of Johannesburg
Ekurhuleni
Merafong City
Westonaria
Lesedi
Emfuleni
Midvaal

(GCRO: 2011)

Map 4: Proportion of Agriculture, Forestry, and Fishing per mesozone in Gauteng



(GCRO: 2011)

Ilustrated by the maps is the proportion of the different industries/sectors in Gauteng. The main focus of the analysis in this study is the Merafong Region. Clearly visible from the maps is the low proportion of the manufacturing; Finance; agricultural, forestry and fishing sectors in the Merafong Region. This is in sharp contrast with that of the mining sector in the region. This high percentage of mining in the area is because of the gold mining activity in the region. It seems then the development of mining sector in the region has meant the underdevelopment of other industries in the region.

Marais (2013) makes the interesting argument that regions facing mine downscaling or closure usually face or have a close link with instability or upheaval in the area. This is an interesting analysis, and point of departure. It is one I will take in my analysis of the violence or instability that has been experienced by Khutsong and that still continues to plague the township. In the case of Khutsong I believe the violence or instability can and should be closely linked to the uncertainty of life for residents. The Voices of Anger report by Johnston and Bernstein (2007) argues that a history of uncertainty has always prevailed in Khutsong, now on top of that the region is facing economic uncertainty. The disputed and uncertain status of Khutsong is not a recent development. During apartheid, the National Party government and the Bophuthaswana administration tried unseccesfully to detach Khutsong from the Transvaal.

As people try to make sense of life and the space around them in a time when they cannot get answers and at a time when the future seems to be unpredictable, violence can be a way for that frustration and uncertainty to play itself out. Upon speaking with my key informants there was a strong sense that the community must tackle their own issues affecting them such as crime and young gangs. They lamented the high crime rate in the township, especially the involvement of youth gangs but in the same sense they casually mentioned that *"crime is very high but it's better now ever since those people were burnt"* (Ma-Asie interview: 2013). By those 'people' my interviewee was referencing to people who were suspected of crime and had been burnt in the township in the month of November 2013. *"We have made our point, say Khutsong residents"* this headline appearing in the Mail and Guardian newspaper speaks of the frustration by residence of Khutsong Township (M&G: 08 November 2013). This feeling of uncertainty of life in Khutsong is carried over to the running of services in the area.

"Services here a very poor, even the water sometimes there is no water to up to 3 days without any prior communication, if the dustbins seat without being collected and we are not told if the municipality workers are on strike or what. Services here are poor my brother, you" (Ma-Asie interview: 2013)

The battle to keep Khutsong in Gauteng is one that is well documented (Johnston and Bernstein, 2007; Matebesi and Botes, 2011; Mavungu, 2011, Moiloa, 2012). Economic fulfilment was not the only reason people in Khutsong fought so hard during the demarcation riots, my interviewees saw Johannesburg being closer and cheaper to go to as opposed to the North West Province. Ma-asie remarked that the train travelling from Johannesburg passed Carletonville but does not go all the way to North West Province thus for one to go to North West one would have to board a taxi which is R150, while it is only R40 by taxi to Johannesburg (Ma-Asie: 2013). Interesting to me was that Ma-asie also remarked that North West was a nice place, and that *"there are always new buildings of good quality"*. He remarked how they also thought RDP houses in North West were bigger than those in Carletonville, and did not have corrugated iron roofs but rather tiles (Ma-Asie: 2013). I could not verify these details and was not sure which area he was talking about in the North West but what this revealed to me was that people lacked a connection to the North West Province; this was a historical connection and connection in terms of the economy. Many of the people I spoke to on the streets of khutsong saw their community connected more to Johannesburg and the mining history of the Rand. This disconnection with the North West is also seen with the interview with Tsekiso Diniconyakane from the youth centre who indicated that no one in Khutsong wants anything to do with North West, although he was very vague with the details on why, simply stating that North West is *"not well developed"* (Tsekiso Diniconyakane interview: 2013).

The historical link with mining is one that residents treasure and want to keep. Another reason with the problem of incorporation to the North West Province for many residents is that they felt that their historical mining contribution to Gauteng would be ignored (Johnston and Bernstein: 2007). Many people in the community felt that the move to North West would strip them of this place in the history books to the mining story of Gauteng. This not only speaks about history of a place but also about perceptions and belonging. People in Khutsong do not feel they have a claim to the history related to the North West Province. Such a narrative by the community points to a recognition of the importance of the gold mining history to the development of Gauteng.

3.7. Conclusion

Despite difficulties faced by residents of Khutsong, the township has still continued and rallied on. Instead of experiencing a mass exodus of people moving out of Khutsong what we see is a place still full of hope, dreams and an envisioned future for Khutsong. These hopes are revealed to us when we analyse the problems that have been faced by Khutsong and the responses from the residents. For instance despite the problem of sinkholes which has greatly delayed development in the area, residents still demand proper housing from the government, this shows stability and an envisioned future from the side of the residents. This stability was also shown by the protest response of residents to being moved away from the Gauteng Province to the North West Province. The strong disapproval and violence that followed shows an active citizenry. Thus I think it is important that we take the first steps from here and begin to state that the continuation and growth of Khutsong Township is very much owed to its residents who want a better future for the township despite its many problems.

It is my hope that the chapter has served the purpose of providing an understanding and context to the reader thus in the process prompting the readers curiosity and questions around Khutsong. It is such questions that I look to engage with at a later stage of this report. It is also my hope that the reader is able to grasp the difficult situation that Khutsong has been and continuous to be in and how that works in shaping peoples experiences in Khutsong.

Chapter four

4. Findings

4.1. Introduction:

This chapter takes a closer look at the resilience or the lack of resilience of the people in Khutsong. The chapter provides an understanding of the lived experiences of people. As some of these experiences are unique and specific it is hard to generalise them but their specificity is important in the provision of a deep and a full understanding.

The chapter deals with different issues and ideas that came up during the process of undertaking the research. Concepts dealt with in the chapter include the urban-rural space, use of social networks, remittance behavior, informality and resilience in Khutsong.

4.2. Rural ties:

The apartheid system in South Africa forced many African people into a migratory system of two homes, a rural and an urban home (Collinson et al, 2003; Mosoetsa, 2011; Posel, 2003). According to Mosoetsa (2011; 28) “The urban-rural relationship was critical in a context of repressive legislation and was sustained by remittances from wage income”. Although apartheid laws restricting the movement of African people have since been abolished we still see that there exists a strong link amongst some people with a rural home, but it interesting to see how this relationship is seen by participants in contemporary Gauteng.

Parnel (2005) argues against the often too simple contrast between urban and rural landscapes in South Africa. In any case the intention in this research is not to present a contrast between the two concepts, although such a conception does have its uses in highlighting certain data. The intention in this research is to find out from participants in the study how they understand the function of the two spaces in their lives. The use of the two concepts (rural and urban) in this research is about meaning and understanding.

I went into the research with the understanding that people or that in most cases there is no complete transition from rural to urban or vice versa but rather a connection although vague and seemingly disconnected at time it is still there. What this means is that people rarely cut

all ties with the rural or urban space. Participants that were part of this research project acknowledged it. The concept of resilience helps us to understand the permanence of these links as part of a resilience strategy.

The gold sector in South Africa since its inception has relied on the above-mentioned labour pattern by black - migrants (Penny: 1986). The urban-rural dichotomy in the case of the gold sector of Carletonville still remains. Penny (1986) states the following about the relationship and how it impacts people, "In practice, this means that 'the rural African pursues a career living in gold mining while maintaining his assets in this rural community, thereby adapting to the physical separation that exists between his place of employment and his place of residence" (Penny: 1986; 186). The separation seen by Penny (1986) of the urban representing a 'place of employment' and the rural a 'place of residence' has changed in recent times as this simple understanding by Penny (1986) has been greatly blurred.

In recent times as shown by the participants of the research that the urban space has also come to be seen as representing a place of 'unemployment' and the rural is an idea of home rather than a regular place of residence. This was particular expressed by Thapelo, Kagiso, Sizwe, Themba and Mzwandile in our conversation. As their ages ranged between 18 and 26 they represented the young male generation of the study and as such I expected different ideas about notions of what the rural home/or residence represents. Upon our conversation it became clear that for this young group of men the rural space held little meaning for them in their day to day experiences. Thapelo, Kagiso and Mzwandile said that they did not have a rural home, as they had been born in Gauteng and had lived here their whole life. For Themba and Sizwe there were still rural ties but they held different conceptions of these ties. Sizwe said he had not been to his family rural home in a long time and he did not think of going back. Themba and Sizwe had a hard time finding relevance with the rural in their day to day experience of difficulties in Khutsong. The shared lack of interest in the rural space by the young men made their deep frustration at being unemployed in the urban the worse to take and they saw the rural space as no place to go back to or offer relief.

Thus the urban space for these young-men is the only space they see as offering any window of opportunity during the hard times in their lives. Thus as Dunbar Moodie (1994) in the 1980s saw with the Pondo young-men the disconnection and a less commitment to the rural space as they did not relate to the concepts of manhood with a rural home or 'umzi' that the older generation had. That disconnection is visible here with these young-men who have no

intention of an ‘umzi; or a home in the rural space to complete a transition to manhood. Thus with the young-men in the research, ideas of ‘manhood’ are about being employed and being able to support oneself and their loved ones in their current space.

But not all turn their back to the rural home but rather lose contact with their rural ties; Mr Alson Bongani Mthembu who came to work in the mines at Doornfontein in the 1980s is originally from KwaZulu Natal (KZN). He has not gone back home since 1991. He has lost touch with his KZN home and relatives. For him this is heart-breaking as he wants to reconnect with this home. He feels alone and destitute in Gauteng with no one from his family to support him in time of need. Thus for Mr Mthembu his vulnerability to the urban is heightened as he feels he has no other place or family to turn to for help.

The relationship with the rural home is not a simple one as there are strong sentiments amongst some of the participants that they would rather face hardships in the urban environment rather than go back home.

“I can say that for a long time I’ve been this side (Khutsong), this is also where my tactics for surviving are. I’ve been here for a long time. Here I can make means and get something, back home I would struggle even more” (Sibongiseni Nzala interview: 2013).

“I have children, I have a wife and children there (Mozambique). I have grandchildren as you see me like this. I left home seeing that there was no plan there. This place (Khutsong) I am used to, I can make a few cents here” (Fernando Manjate interview: 2013)

“Here in the location I do not have friends, I can’t even move and stay in another place that I am not used to. Because from 1991, I have been here. I went home briefly but I say that at home I am not used to things there so I came to struggle here until today” (Fernando Manjate interview: 2013).

What both individuals show and keep repeating in our interactions was that they are used to things in Khutsong thus they know their way around, but feel that they would struggle to survive and have the same adaptation strategies back home. This speaks of time; even though these participants have rural ties they have spent most of their time in Gauteng and in Khutsong. The rural area seems to represent an unfamiliar territory. In this case strategies of resilience are closely linked to how long one has been in a place but also to the fact they have been able to build relationships, social networks in the urban thus as to facilitate a way of survival. Thus even though they admit to hardship and unemployment in the urban, there is a

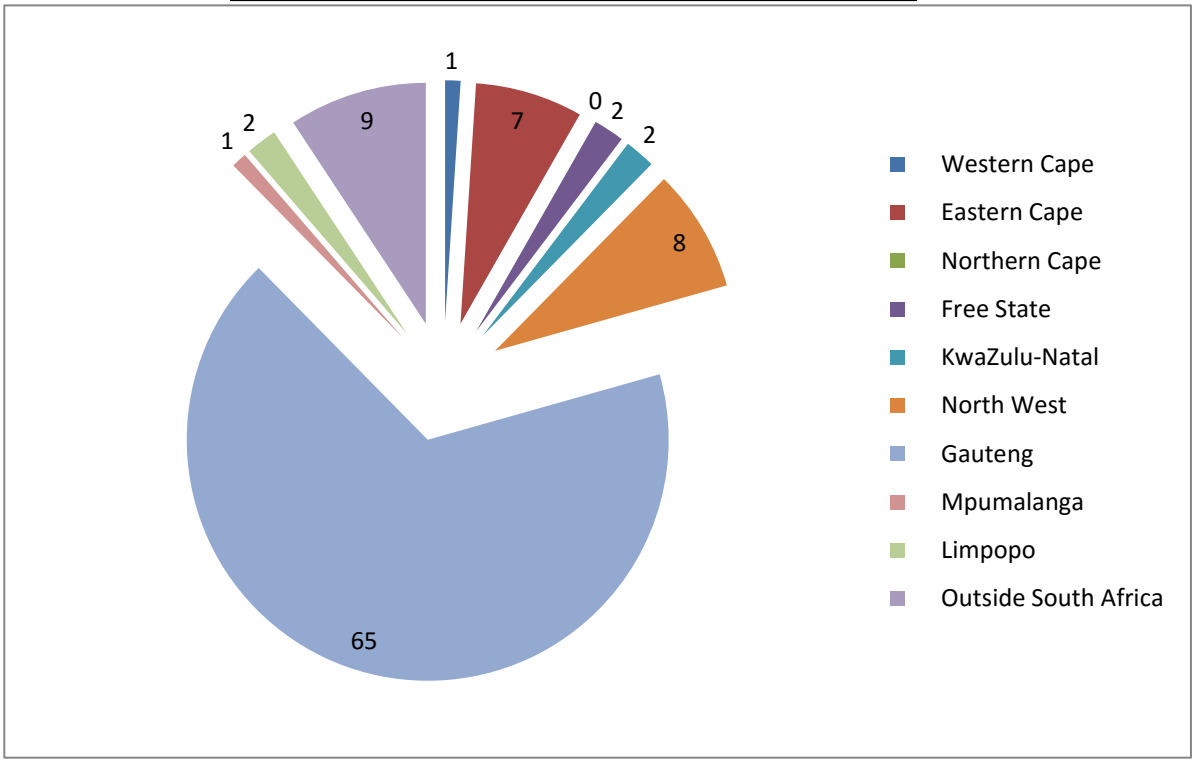
big sense that they would rather be unemployed and struggle in Khutsong than be unemployed and struggle in the rural areas or any other area. Thus what comes out clear here is that the urban space that is Khutsong is a space of resilience. Thus as much as participants feel vulnerable because of unemployment that vulnerability can be better negotiated in the urban environment of Khutsong than in another area.

There is also a sense from the participants of the research that they have invested in the urban area than in the rural area, Mr Nzala even admitted that back home his rural home is falling apart though admitted that *"I have intentions of one day building it up as it was"* (Sibongiseni Nzala interview: 2013). Thus in Khutsong we see that our participants are continuing to invest in the urban environment despite the difficulties it might be facing. These investments indicate that people are strengthening their foothold in the space. These investments come out in time and assets such as housing in Khutsong invested by participants.

Mr Gobodo who is from Pedi in the Eastern Cape, even though currently unemployed and living off his pension he does not see himself going back home to Pedi because he has an RDP house in Khutsong, like the others he does not see a future for himself back home in Pedi.

The narrative from the young-men and the older generation in the study brings in questions of birth place into the picture. According to the recent Statistics SA (2011) data, a majority of people (60%) in Khutsong indicated that they had been born in the Gauteng Province.

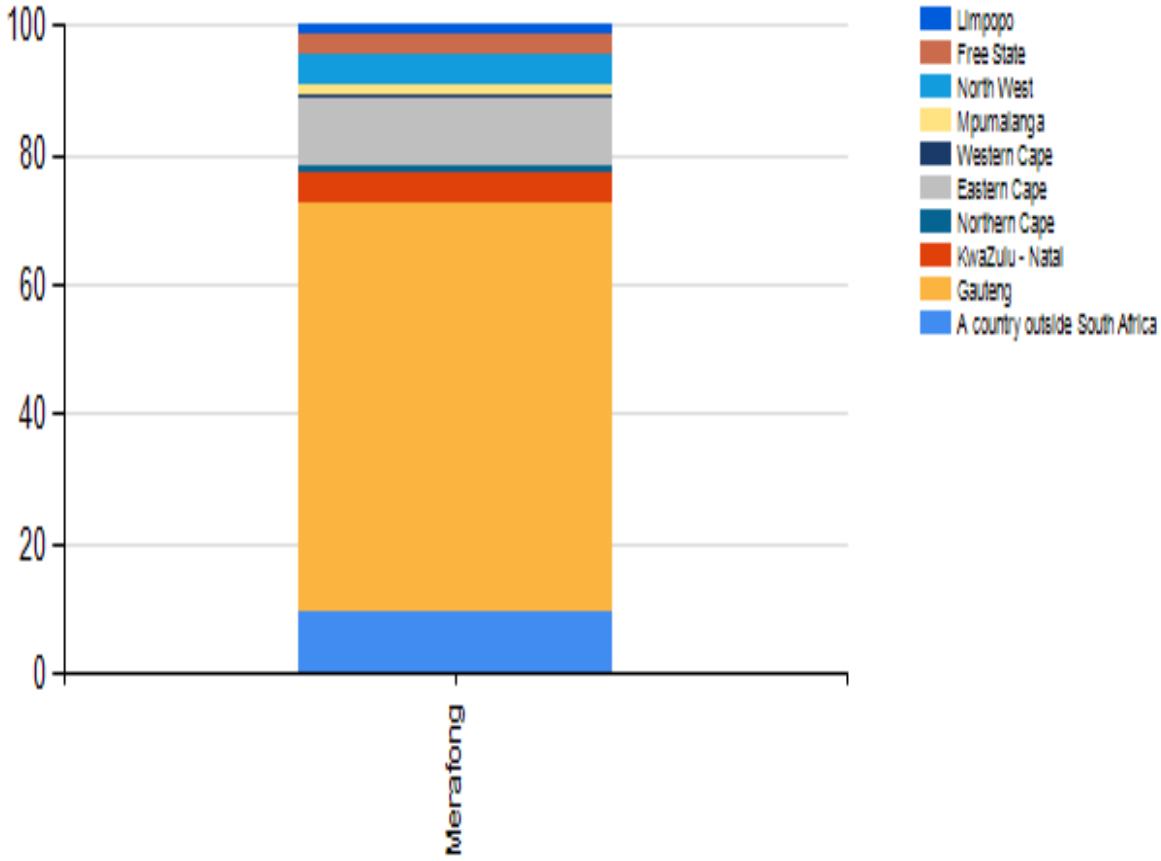
Figure 1: Province of birth for Khutsong



(Statistics SA: 2011)

According to the GCRO (2011) quality of life survey a vast majority of people in Merafong (63%) considered Gauteng Province to be their home.

Figure 2: Where do people consider to be home in Merafong Municipality



(GCRO: 2011)

4.2.1. Remittances

A connection with the rural 'home' not only affects how much people are willing to invest in it but also issues of remittance come in to play. Penny (1986) identifies two purposes of remittance relevant in the migratory style of the gold industry, she states that "remittances are used to accumulate assets in the home area" (Penny: 1986; 295). Her second assertion is that "remittances are used to support his dependants who reside in the home area" (Penny: 1986; 295). The first point is particularly useful for the study as the lack of those assets represents not only a lack of investment in the rural area but a pledge to survive in the urban. Upon discussing this with my participants there was very little remittance to the rural home (for those who still maintained). It was only Mr Fernando Manjate actively involved in remittance.

"I do want to go back but at home I am not used to and there is no money there. If I can get a few cents here it is better because I can send home, so the children go to school and they can get something to eat" (Fernando Manjate interview: 2013)

Mr Fernando Manjate's remittance is strongly maintained by the fact that none of his family are with him in Khutsong. The money that he does send is not only to sustain his family back home but to build enough assets at home to go back to something. His wife has a small garden at home, thus the money goes to maintaining this garden.

There are some authors who see a difference between formal and informal links to remittance, Gupta et al (2008) argues that "while remittances can facilitate the entry of households into formal financial markets, only a fraction of the sums remitted by migrant workers from sub-Saharan Africa finds its way into the formal system" (Gupta et al: 2008; 110), Taylor (1999) supports this idea of less formal by stating that "migration and remittances may reshape migrant sending economies through indirect channels that are missed by traditional research approaches" (Taylor: 1999; 64). This is strongly seen in the case of Mr Fernando Manjate,

"I send it (money) home because there are people from back home who drive taxis. I then send it with them, I pay their service and they take the money home" (Fernando Manjate interview: 2013)

Amongst the group of young men I interacted with non-remitted money. Other than the fact that they had no links to a rural space but even those that did have such links with the rural home did not remit money because they cited unemployment as a cause of this but with that they also had no close relatives and no incentives to do that.

The remittance behaviour displayed by the participants of study in Khutsong was very much different from the miners I interacted with at Elandsridge Village. The miners I spoke with remitted almost on a regular basis. The miners indicated to sending back home money but also goods such as fridges, beds, television sets were bought and sent back to the rural areas. The narrative that came out of the miners (and these often came out in clear ways) indicate that they still viewed their existence within the circular migratory system. Gauteng and the mines represented a space of employment while their rural homesteads were spaces of family. Thus the remittances were part of a long-term strategy to move back to their rural homes. The remittance behaviour was hugely supported by the fact that most of these men were working

full time as miners, this is different from participants in Khutsong who life for them was made more uncertain as a result of unemployment. This unemployment not only reduced remittance behaviour but encouraged the view to further entrench their foothold in the urban space of Khutsong.

4.3. Social Networks:

The ability to call on social links in times of need is a powerful contributor to how households or individuals are able to sustain themselves when faced with continued vulnerability (Beall, 2001; Dershem and Gzirisnvill, 1998). These social links can be drawn from close family members, distant relatives, friends, acquaintances, neighbours or those in the 'community'. I believe individuals draw differently from these social networks.

In a study on a fire that affected Imizamo Yethu in 2004, Harte el al (2009) found that for everyday life the majority of residents in Imizamo Yethu relied on informal social networks within the community, principally support from extended family and friends, and were able to tap into these social networks to rebuild their shacks after the fire. The situation faced in Khutsong is different as it is not a fire or short term disaster but rather a continuous and gradual process of vulnerability that people are finding themselves in. Thus for Imizamo Yethu the primary focus was to rebuild shacks immediately but with Khutsong residents the goal is to continue surviving in the urban environment.

Berkey and Jolly (2001) looking at the effects of climate change on the Artic Inuit note that food sharing strategies amongst groupings is important, "Inuit food sharing often went beyond the immediate group as well, because the Inuit tended to have complex networks of social relationships, and exchanges took place based on these extensive networks (Berkes and Jolly: 2001; 17). The social networks were seen as important by the participants in the research to the continued resilience in Khutsong.

"We are poor but because of the good way we worked together we still greet each other even my brother here when he has a bit of money, 50 cents or R5 he gives me to buy bread, that is how we live" (Fernando Manjate interview: 2013)

When asked about relatives to Mr Sibongiseni Nzala*, "No, I've tried something like that, but when you are poor even your own family stay away from you. I do have family relatives here*

in the township but we do not visit each other because I do not have anything" (Sibongiseni Nzala interview: 2013).

There is a sense then for Mr Nzala that resilience can be outside the network of relatives, this sentiment that kinship abandon one because of socio-economics also shared by Fernando Manjate who admitted to having family within South Africa but saw no relationship with them, *"No, I do not have here (Gauteng) but in other places they are there. Even if they were here it would be the same because they work and I don't they will see me as nothing"* (Fernando Manjate interview: 2013).

Even though the extended family is not seen to form basis of support, close family does. As Harte el al (2009) show in their study that respondents nominate family as the single most important source of assistance to the immediate response and long term response. In order to survive the trying times, people use their social networks in different ways in order to be resilient, thus while Mr Manjate and Nzala do not see help from family, this was different from the case of Mr Gobodo.

Mr Vuyisile Gobodo stays with his wife, his 3 children and grandchildren, none of the children are employed. Poverty and the lack of employment in the area sees households such as that of Mr Gobodo changing in size and structure as a result of the poverty and unemployment in the region (Mosoetsa: 2011). This pattern is recorded in other parts of the country with regions facing similar issues were three to four generations are staying under one roof (Mosoetsa: 2011). Grouping together of the household to booster financials as it cuts costs of renting, but heavy strain as no one works in the household and state grants utilized by family does not cover everything, as shown by (Mosoetsa: 2011) state grants barely ever meet needs of large households. As Mr Gobodo and his wife both receive pensions this is used to support the household. Grouping together of the household and maximising the state grants is a strategy in this household to adapt and minimise vulnerability.

Banks (2001) on his paper on *'ukuhlalisana'* relationships in Duncan Village in the 1980s is a good starting point as this is something that came up in the interviews. *'Ukuhlalisana'* or living together as Banks (2001) argues that it was used "...to express new social identities and to highlight the ascendancy of the youth within the township and especially to mark them as different from older, more conservative migrant in the city" (Banks: 2001; 131). Banks

(2001) goes on to comment that "Growing demographic imbalances in a largely stagnant urban economy, together with deep seated social and political ferment among the youth, provided the essential background to the assessment of living together or ukuhlalisana" (Banks: 2001; 138).

In the current study *'ukuhlalisana'* came out as way to move out of home, two of the five young-men (Mzwandile and Sizwe) I was talking to were involved in 'ukuhlalisana' relationships, these two were also the oldest amongst the group. Mzwandile was staying full time with his girlfriend and their son. While Sizwe on the other hand moved back and forth, staying with his girlfriend to staying at home. When I quizzed Sizwe on this he maintained that the main reason for doing this was that he needed his own space at times.

Both young-men recounted the difficulties of 'ukuhlalisana' relationships because as they were unemployed and at times this brought strain on their relationships with their partners. Thus Sizwe moved back and forth depending on economies, when his girlfriend had no money he stated he would move back home as he could not provide anything financially to her. There was a sense from Sizwe then that there is need forn an extra space of survival.

Upon informal conversations with other people in the township it became clear that *'ukuhlalisana'* relationships are largely exercised. Some saw it as a way to band together and maximise resources, while some saw it in terms of economic terms, a way to have someone to support them. But social networks to call upon also included friends, Mr Fernando Manjate stated that he relied on those close to him for shelter, food and money.

"I do not have family around here (Khutsong), I do not have my own shack. I got help when they said sleep here, when they want they kick me out and I go sleep in the woods" (Fernando manjate interview: 2013).

4.4. Informality

In some instances the decline of the formal economy in an area naturally leads to the growth of 'informal' activities to generate income (Mosoetsa 2011). In Khutsong this was very hard to find amongst many of my participants. Many of the people I spoke with in the township commented how the presence of Somali shops in the area has destroyed chances of locals in

the area to go into trading businesses. There was not much of an 'informal' economy with those I interacted with but there were many involved in casual labour, Mr Gobodo mentioned that he does casual labour where he works as a painter, in this task he does with his oldest son; but he bemoaned the fact that this involves very unstable income and never enough to cover household needs. Mr Fernando Manjate was the only one working in the 'informal' economy working as a bottle collector.

"It is not enough but it is better than sitting and doing nothing because there is nothing I can do, I will gain nothing, my children will also gain nothing it is better to move around collecting (bottles) until sun-down then come back to sleep. I wake up early in the morning. I can spend two or three months without getting stock because there are many other people collecting bottles and cans" (Fernando Manjate interview: 2013).

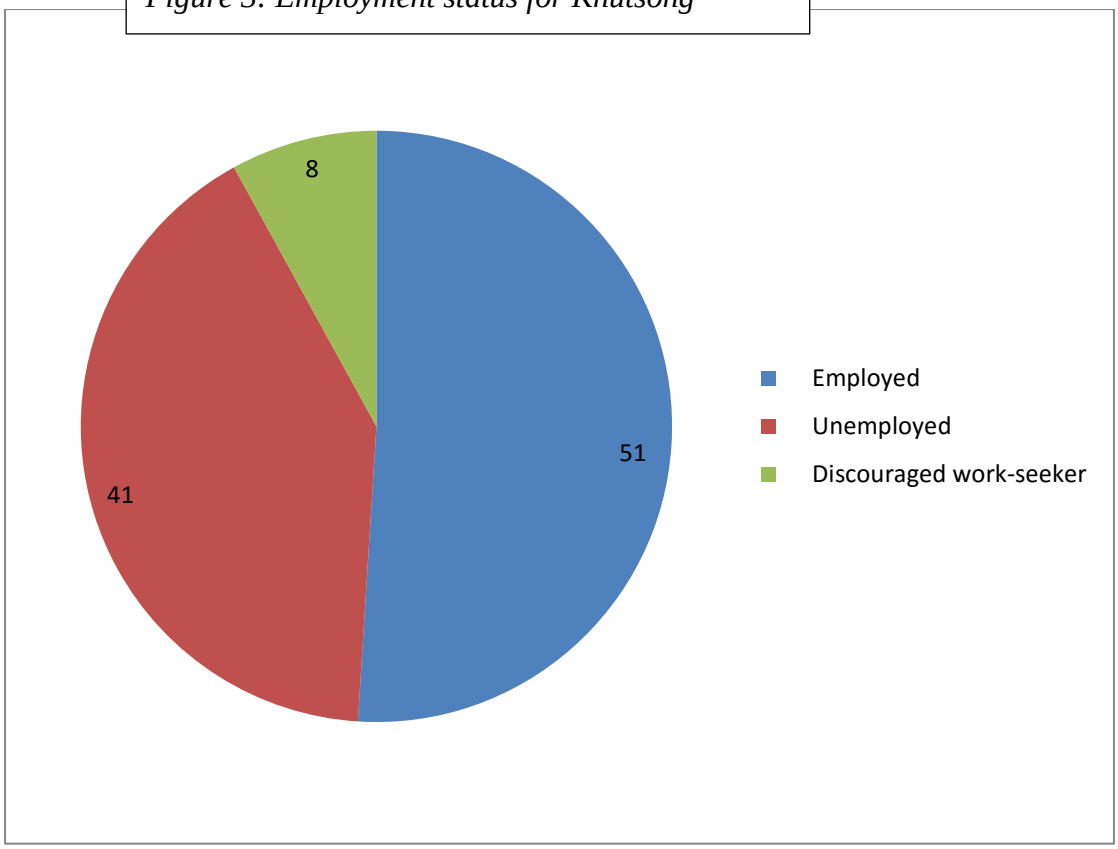
What is clear from the two cases is that of the unpredictability of income. But the sense of employment was different amongst the group of young men I spoke with. Although they also showed urgency and frustration at being unemployed, they saw employment not in casual labour or informality but rather wanted stable, less strenuous employment. The mines were a good prospect to go work in as they saw that there existed chances of upward mobility working there. This prospect was hampered by the difficulties of getting a job in one of the mines. They all recounted how bribery or paying "intshontsho" seemed the only way for one to get work in the mines.

4.5. Implications for Resilience in Khutsong:

The persistency through continues difficulty plays itself out in interesting ways with the participants of the study. We learn that space holds different meaning and understanding. Even though Khutsong, as with the rest of Merafong, is going through a slump in the economy and going through a lot uncertainty with its future; the urban experience it offers is still valued. According to the World Bank (1991) "The highly commoditized nature of the urban sector means that labor is the urban poor's most important asset, generating income either directly in terms of goods and services which are sold through informal sector self-employment activities". Thus this commodification of the urban sector is interesting as participants of the study saw their strategies of resilience only being able to take place in the urban environment. But it is troubling in the case of Khutsong which has a very high

unemployment rate, meaning that the urban for a lot of people is not an income generating space.

Figure 3: Employment status for Khutsong



(Statistics SA: 2011)

Thus this idea of the commodification of the urban is causing many people in Khutsong to hold on even through uncertainty. The idea put forth by the World Bank (1991) when taken in the context of South Africa has to be viewed in the political history of apartheid and circular migration when the urban was seen by the state as space only for employment for Africans.

In the study we see that the urban is not only a 'commodification' space but also plays a role as a space of ownership, especially the ownership of housing is seen as being very important. Lemanski (2011) writing about RDP houses notes that "For low-income South Africans households, an RDP property represents their first legal tenure right to the city and their first opportunity for long generational stability and familial well-being, something poor

households are reluctant to risk" (Lemanski: 2011; 69). We see in our participants that housing important tool of resilience for participants. Mr Gobodo's home is housing his children and grandchildren; it acts as a point of shelter and security in face of unemployment, this is key in the urban representing order in face of this current uncertainty faced by household.

The absence of permanent housing thus not only increases vulnerability but lose of a tool for resilience. Mr Fernando Manjate does not have his own place in Khutsong or Gauteng; he currently is finding shelter with friends in the area. His uncertainty and vulnerability in Khutsong is exacerbated by the lack of permanent housing. Mr Mthembu also does not have his own house; he rents a backyard shack within Khutsong. The act of renting or not having ownership showed his precarious and difficult relationship with the urban and Khutsong.

4.6. Conclusion:

The urban space is a space of enacting resilience strategies. The urban environment enables one to be resilient, even though one is vulnerable and facing unemployment in the urban space. The urban environment holds ideas of employment that are still strongly adhered to. The narratives that come out of this chapter speak of time and familiarity as to many people Khutsong and mining all that they know. Other areas, such as rural spaces for instance seem unfamiliar to participants and current resilient strategies would be hindered or would not work. Coming out in a very clear manner from the participants of the study is that Khutsong for many people is a space of resilience.

Chapter five:

5. Conclusion:

5.1. Introduction:

The aim of this chapter is to summarise the main findings and points that come out of the research report. In summarising the findings an attempt is made to present the overall argument of the report, which relates to the resilience exhibited by people in Khutsong Township. One of the main points to come out of the research relates to how people in the study understand their urban experience, the history of mining and how that has shaped how they perceive their space and their involvement in that space. The chapter deals with Khutsong as an urban space, and lastly how resilience is exhibited by the people in Khutsong. The resilience concept provided a good lens to tackle the issues in Khutsong and Merafong Municipality.

5.2. Khutsong and mining:

As identified by Van Eeden (2010) 'Carletonville's battle for economic survival' has been going on for some time. Then it needs to be asked how can the region try to rescue itself out of the current situation so that the future may look brighter? Harrison and Zack (2012) in their article summarise the process of economic survival that Johannesburg was able to come through after the decline in gold mining in the region. They note that "Johannesburg experienced a process of diversification beginning in the early twentieth century. The development of the mines created an immediate demand for industrial production such as iron and steel, construction materials and chemicals" (Harrison and Zack: 2012; 556). Thus for Johannesburg there existed a connection between the gold mining sector and other sectors, meaning that other sectors were there to replace gold mining when the time came (Harrison and Zack: 2012). As it looks for the Merafong region this does not seem to have been the case so far. It is understandable that cannot compare the Johannesburg case to what is taking place in the West Rand because of the different dynamics at play but Johannesburg provides an example where this successfully happened.

Liljenas (1992) cited in Nel, Hill et al (2010) has a typology of local strategic responses to counter mine closures:

- Attempt to preserve existing economic life
- Finding and expanding existing alternative local jobs (diversification)
- Development of new activities e.g small firms, service and tourism
- Movement into high-technological sectors

For Khutsong and whole Merafong Municipality it is hard to find where these four steps of the typology have been implemented. A lot still needs to be done in the region to diversify the economy. Going against the region is the distance between it and the main economic area in Gauteng such as Sandton and Johannesburg.

Nel and Binns (2002) looking at the decrease of gold mining in the Free State identify certain local economic initiatives, partnerships and plans that were put in place to counter the slump in gold mining and increase economic growth in the area. One of the strategies they note was the establishment of the Free State Goldfields Development Central (FGFDC), which had the following goals and objectives in the region:

- Improving access to food, shelter, health services and protection
- Improving living standards through the provision of education and jobs,
- Expanding social and economic opportunities for citizens;
- Acting as the facilitator and champion for local economic initiatives;
- Marketing the inherent potential for economic growth in the region;
- And evaluating and processing applications for local and national incentive schemes
- Concerted effort to spurn economic development

From the Merafong City 2011-2012 IDP document, there seems to be plans to "diversify economy to avoid 'Ghost Town' scenario" but there have been few visible infrastructural developments to assist these plans. Many of the people who took part in the study do not see development taking place, and view that corruption and mismanagement clogging the system to warrant any visible growth.

5.3. Resilience in the unpredictable city:

The precarious nature of the Merafong region is in the heavy dependence on the gold mining sector. Even though gold mining in the region will still go on for many years to come it is important to take seriously the precarious and unpredictable future faced by Khutsong and

other areas in the municipality as a result of a decrease in gold mining production and employment. This situation is made worse because gold mining is the biggest contributor to the local economy providing employment directly and indirectly.

The current situation even though there is little/ or no growth in production and employment in Merafong Municipality, Khutsong is still seen as a centre of opportunity by many people. In comparing population figures from 2001 and 2011 census there is only a slight drop in the population from 2001 to 2011 not going to the script of the 'ghost town'. And of the majority of that population in Merafong resides in Khutsong. Thus despite hardships many people are still moving in to Khutsong, and the township still continues to grow.

As highlighted by the study, Khutsong still holds a strong link to the urban/ city for many people in the area, and thus the story by many of the people that they would rather be unemployed in an urban space than a rural or another space. There is an idea here that in the urban environment there is chance of getting employment, there is still a chance of being employed in the mines.

Khutsong is maintaining its population and still holds significance to people because people see the township as holding a link or connection with Gauteng, but beyond that they recognise the strong connection that Khutsong and the other areas of Merafong still have with the gold mining sector. The connection with gold mining is strong and strongly preserved and appreciated by the people.

As seen from participants Khutsong is still a place of hope for many people that reside in the area. For many, Khutsong and mining all that they know. For them Khutsong still represents an urban environment thus a place of employment. This idea is very crucial and important for many of the people. As illustrated by interviews with Mr Fernando Manjante for instance; in Khutsong there exists a chance of employment though this may be erratic and not guaranteed.

Many people still maintain rural ties, some strong and some rarely there. This relationship is not always clear at times. As seen from participants of the study the rural was a space of unfamiliarity, it was not a place where their current resilience strategies could be implemented or even affectively work.

Linked with the abovementioned point is that the accumulation of key assets in the city such as housing was very important in strengthening or weakening resilience of people. Lack of housing meant instability; this was seen with Mr Fernando Manjate and Mr Mthembu. On the

other-hand a house for Mr Gobodo provided him and his family order and stability in the city. The house provided a reason for him to remain in Khutsong but also provided shelter.

Social networks formed a big part of the resilience for many of the people in the study. These social networks were able to provide participants with food, finances, support or shelter.

This study tried to present the lived experiences of the people involved in the study. Through that the researcher hoped to get a more detailed lense into these spaces. The blend of theory and empirical research informed research. The theory and empirical material merge and create a symbiosis feeding each other to be able to tell the story that is Khutsong. The stories of the people interacted with told its own story and those stories were infused with theory this allowed for the seamless flow of research argument.

Reference List:

Adger, W N. 2006. Vulnerability, *Global Environment Change* 16: 268-281

Adger, W N. Hughes, P T. Folke, C. Carpenter, R S. and Rockstrom, J. 2005. *Science* 309: 1036 - 1039

Adger, W N. 2000. Social and ecological resilience: are they related? *Progress in Human Geography* 24 (3): 347 - 364

Allen, V. L. 2003. *The History of Black Miner workers in South Africa. Volume 3*. The Moor Press. UK

Azeem, M. Afzal, T M and Bashir, M. 2008. Reliability and validity of qualitative and operational rsearch paradigm, *pak.j.stat.oper.res* 4(1): 35-45

Banks, L. 2001. Living Together, Moving Apart: Home-made Agendas, identity Politics and Urban Rural-Linkages in the Eastern Cape, South Africa, *Journal of Contemporary African Studies* 19 (1): 129-147

Beall, J. 2001. From social networks to public action in urban governance: where does benefit accrue, *Journal of International Development* 13: 1015-1021

Berkes, F and Jolly, D. 2001. Adapting to Climate Change: Social – Ecological Resilience in a Canadian Western Artic Community, Conservation Ecology 5 (2): 18

Blaikie, P. and Brookfield, H. 1987. *Land Degradation and Society*. Methuen. London

Bonner, P. 1990. The Politics of Black Squatter Movements on the Rand, 1944-1952. *Radical History* 46 (7): 89-115

Bonner, P. 2005. Eluding Capture: African Grassroots Struggles in 1940s Benoni. In: *South Africa's 1940s: World of Possibilities*. Cape Town: Double Storey. Pp. 170-191

Bozzoli, B. 1991. *Women of Phokeng: Consciousness, Life Strategy and Migrancy in South Africa, 1900 – 1983.* Johannesburg: Ravan Press.

Collinson, M. Tollman, S. Kahn, K. Clark, S. 2003. *Highly prevalent circular migration: Households, mobility and economic status in rural South Africa.* Paper prepared for

conference on African Migration in Comparative Perspective, Johannesburg, South Africa, 4-7 June 2003.

Delius, P. 1989. *Sebatakgomo: Migrant Organisation, the ANC and the Sekhukuneland Revolt*. Additional Seminar Paper: University of the Witwatersrand

Demissie, F. 2010. In the shadow of the Gold Mines: Migrancy and Mine Housing in South Africa, *Housing studies* 13(4): 445-469

Department of Mineral Resources. 2011. South African Minerals Industry. Available form: http://www.dmr.gov.za/news-feeds.html. [10 October 2014]

Dershem, L and Gzirishvili. 1998. Informal social support networks and household vulnerability: Empirical, *World Development* 26(10): 1827-1838

Drimie, S and van Zyl, J. 2005. *Human Vulnerability to Environmental Change*. Background Research Paper produced for the South African Environment Outlook report on behalf of the Department of Environmental Affairs and Tourism

Dunbar Moodie, T. 1994. *Going for Gold: Men, Mines and Migration*. University of California Press. US

Eales, K. 2001. Patriarchs, Passes and Privilege: Johannesburg's African Middle Classes and the Question of Night Passes for African Women. In: P.Bonner et al, ed. *Holding Their Ground: Class, Locality and Culture in 19th and 20th Century South Africa*. Johannesburg: Ravan Press. Pp.105-139

Flyberg, B. 2006. Five Misunderstandings About Case-Study Research, *Qualitative Inquiry* 2: 219 - 245

Folke, C. 2006. Resilience: The emergence of perspective for social-ecological systems analys, *Global Environment Change* 16: 253- 267

Gallopin, G C. 2006. Linkages between vulnerability, resilience and adaptive capacity, *Global Environment Change* 16: 293-303

Gauteng City Regional Observatory (GCRO). 2011. Quality of Life Survey. Available from: http://gcro1.wits.ac.za/qolviewer/. [06 December 2014].

Gupta, S. Pattillo, A C and Wagh, S. 2009. Effects of Remittances on Poverty and Financial Development in Sub-Saharan Africa, *World Development* 37 (1): 104 - 115

Harrison P and Zack T. 2012. The power of mining: the fall of gold and rise of Johannesburg, *Journal of Contemporary African Studies* 30 (4): 551-570

Hart W.E, Childs I.R.W and Hasting PA. 2008. Imizamo Yethu: a Case Study of Community Resilience to Fire Hazard in an Informal Settlement Cape Town, South Africa, *Geographical Research* 47 (2): 142-154

Holling, C S. Peterson, G and Allen, R C. 1998. Ecological Resilience, Biodiversity and Scale, *Ecosystems* 1: 6 - 18

Holling, C S. 1973. Resilience and stability of ecological systems, *Annual Review of Ecological and Systematics* 4: 1-23

Johnston, S and Bernstein, A. 2007. *Voices of Anger: Protest and Conflict in Two Municipalities*. Report to the Conflict and Governance Facility. Johannesburg. The Centre for Development and Enterprise

Katzen, L. *Gold and the South African Economy: The Influence of the Gold Mining Industry on Business Cycles and Economic Growth in South Africa 1886 – 1961*. Gothic Printing Company Ltd. Cape Town

Kirshner, D. J. 2012. "We are Gauteng People: Challenging the Politics of Xenophobia in Khutsong, South Africa, *Antipode* 44 (4): 1307 – 1328

Lemanski, C. 2011. Moving up the ladder or stuck on the Bottom Rung? Homeownership as a solution to poverty in urban South Africa, *International Journal of Urban and Regional Research* 35 (1): 57-77

Macmillan, H. 2012. Mining, housing and welfare in South Africa and Zambia: an historical perspective, *Journal of Contemporary African Studies* 30 (4):539-550

Maphosa, F. 2007. Remittance and development: the impact of migration to South Africa on rural livelihoods in southern Zimbabwe, *Development Southern Africa* 24 (1): 123 – 136

Maylam, P. 1990. The Rise and Decline of Urban Apartheid in South Africa, *African Affairs* 89 (354): 57 - 84

Mbembe, A and Nuttal, S. 2004. Writing the world from an African metropolis, *Public Culture* 16 (3): 347-372

Merafong City Local Municipality Budget Speech. 2008. Deliverd by: Councillor D.D Van Rooyen

Merafong City Local Municipality. Anexure J.I. Spatial Development Framework. Vol. third review

Moser, C O N. 1998. The asset vulnerability framework: Reassessing urban poverty reduction strategies, *World Development* 26(1): 1-19

Mosoetsa, S. 2011. *Eating from One Pot: The Dynamics of Survival in Poor South African Households*. Wits University Press. Johannesburg

Nel, E and Binns, T. 2002. Decline and Response in South Africa's Free State Goldfields, *IDPR* 24 (2): 249-269

Nel, L E. Hill, R T. Aitchinson, K C and Buthelezi. 2003. The closure of coal mines and local development responses in coal-rim cluster, northern KwaZulu-Natal, *Development South Africa* 20 (3): 369-385

Nattrass, N. 1995. The crisis in South African Gold mining, *World Development* 23 (5): 857-868

Parnel, S. 2005. Constructing a developmental nation – the challenge of including the poor in the post-apartheid city, *Transformation* 58: 20-44

Penny, N J H. 1986. Economic Society of South Africa,

Pierce, R. 2008. *Research Methods in Politics-a practical guide*. SAGE Publications: London

Posel, D. 2003. *Have Migration Patterns in post-Apartheid South Africa Changed?* Paper prepared for Conference on African Migration in Comparative Perspective, Johannesbug.

Posel, D. 2001. How do households work? Migration, the household and remittance behaviour in South Africa, *Social Dynamics: A journal of African Studies* 27 (1): 165 - 189

Ramphele, M. 1989. They Dynamics of Gender Politics in the Hostels of Cape Town: Another Legacy of the South African Migrant Labour System. *Journal of Southern African Studies* 15 (3): 343-414

Rowley, J. 2002. Using case studies in Research, *Management Research News* 25 (1): 16-27

Smit, B and Wandel, J. 2006. Adaptation, adaptive capacity and vulnerability, *Global Environment Change* 16: 282-292

Statistics South Africa. 2011. 2011 Census data. Available from: http://www.statssa.gov.za/census2011/default.asp. [01 December 2014].

Taylor, J E. 1999. The new economics of labour migration and the role of remittances in the migration process, *International migration* 37(1): 63-88

Tomlinson, R. Bearegard, A. R. Bremer, L and Mangcu, X. (ed.). 2003. *Emerging Johannesburg: Perspectives on the Post-apartheid City*. Routledge. New York.

Van Eeden, E. 2010. So long goldmines long live industries? A case study of Carletonville's battle for economic survival, *South African Journal of economic history* 12(1-2): 103-127

Walker, B. Anderies, M.J. Kinzig, P.A and Ryan, P. 2006. Exploring Resilience in Social – Ecological systems Through Comparative Studies and Theory Development: Introduction to the Special Issue, *Ecology and society* 11 (1): 12

Walker, B. Carpenter, S. Anderies, J. Abel, N. Cumming, G. Janssen, M. Lebel, L. Norberg, J. Peterson, D G and Pritchard, R. 2002. *Resilience Management in Social – Ecological Systems:* a Working Hypothesis for a Participatory Approach

Wells, J. 1993. *We now demand!: the history of women's resistance to pass laws in South Africa*. Wits University Press. Johannesburg.

Wilkinson, C. 2012. Social – ecological resilience: insights and issues for planning theory, *Planning theory* 11: 148-169

Wisner, B and Luce H.R. 1993. Disaster, Vulnerability: Scale, Power and Daily Life. *GeoJournal* 30 (2):127-140

Woolard, I. 2002. *An Overview of poverty and inequality in South Africa*

World Bank and International Corporation. 2002. *Mining and Development: It's not over when it's over: Mine Closure Around the World*. Global Mining Report

Yin, R. 2014. *Case Study Research: Design and Methods, 5th Edition*. Sage Publications. California

Yin, R. 1994. *Case Study Research: Design and Methods, 2nd Edition*. Sage, Thousand Oaks