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Exploring the effect of spatial planning in delivering access to socio-economic opportunities to address spatial inequality - *The case of the Tswaing Mega Project and the Marikana-Soutpan community.*

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ABSTRACT

South Africa is challenged by persistent spatial inequality inherited from previous regimes, which contributes to various socio-economic challenges and hinders the sustainable development of urban areas. Consequently, poverty tends to be more severe in previously marginalised areas where poor residents, the majority of them being black, still suffer from a lack of proximity to adequate socio-economic opportunities (Harrison & Todes, 2013). Several urban and spatial policies have been adopted and implemented, but spatial fragmentation persists. The Department of Human Settlements proposed adopting Mega Projects to develop large-scale, new housing projects integrated with infrastructure, in greenfield sites which are located in urban peripheries. Mega Projects also aim at attracting private sector investment. However, this strategy has been criticised for disregarding planning ideals of compactness and integration with existing economic centres and job opportunities, and for putting forward plans that lack details (Ballard, 2017; Turok, 2015). Therefore, the objective of this study was to investigate how spatial planning and infrastructure investment could be used to promote access to socio-economic opportunities for marginalised people in spatially fragmented urban areas by focusing on the case of the Tswaing Mega-Project in the Marikana-Soutpan community in the periphery of the City of Tshwane. Unlike other Mega Projects designed on vacant land, the Tswaing Mega Project covers an already existing informal area, the Marikana-Soutpan informal settlement. Qualitative research methods informed the research, drawing from three types of primary and secondary data: (1) qualitative interviews, (2) documentation review and (3) participant observation. Research findings describe how the Tswaing Mega Project plan, launched in 2015, experienced delays and was eventually cancelled, with the adoption of the Upgrading of Informal Settlement Programme (UISP) in October 2022. Additionally, the long waiting period for government intervention and the lack of transparency from the government have proven to worsen the state of marginalisation for the Marikana-Soutpan Community. At the completion of this research project, the Marikana-Soutpan community is in for another, possibly long, waiting period as the UISP initiates. Therefore, this research speaks to the analysis that is critical of Mega Projects for offering poorly detailed project plans, lacking transparency, and lacking consideration of the complexities of human settlement development. Based on the findings, it is argued that the now-revoked Tswaing Mega Project has contributed to the further marginalisation of the Marikana-Soutpan community.

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DECLARATION FORM

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Signature:  Date: 02 November 2023

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LIST OF ACRONYMS

BNG	Breaking New Grounds
CBD	Central District Centre
CSIR	Council of Science and Industrial Research
CTMM	City of Tshwane Metropolitan Municipality
DFA	Development Facilitation Act
GCRO	Gauteng City-Region Observatory
GDHS	Gauteng department of Human Settlement
GPF	Gauteng Partnership Fund
MSDP	Municipal Spatial Development Framework
QoL	Quality of Life
RDP	Reconstruction Development Programme
RSDF	Regional Spatial Development Framework
SPLUMA	Spatial Planning and Land use Management Act
UISP	Upgrading of Informal Settlement Programme

LIST OF DEFINITIONS

- **Socio-economic Opportunities**

  The study of Socio-economics is concerned with how different economic factors such as income can influence societal behaviours. It is concerned with the interaction between economic activities and social processes which determine the **socio-economic status** of different groups within a society (Tarver, 2017). Socio-economic status is determined by an amalgamation of social and economic factors such as employment, education, housing, healthcare, etc. Therefore, **socio-economic opportunities** refer to an adequate level of accessibility to various socio-economic factors necessary for communities or an individual to improve their quality of life (County Health Rankings and Roadmaps, 2023).

- **Spatial Planning**

  Taylor (2010) describes spatial planning as a mechanism that is concerned with understanding how human settlements work, the types of activities that are allowed in specific areas, and how infrastructure and services should be distributed to meet the needs of the population within human settlements. Spatial planning is also understood as a government function to guide future spatial development, it is concerned with land uses that can create a balance between the achievement of socio-economic objectives and the protection of the environment (Wegener, 1998 as cited by Yoshida et al., 2020). Stead and Nadin (2008), describe spatial planning as a mechanism to develop long-term and sustainable socio-economic spatial development within nations to achieve integration between different sectors – such as energy and transportation, among others, taking into consideration the environment to improve national development (Stead and Nadin, 2008).

- **Spatial Inequality**

  For this study, spatial inequality refers to the unequal distribution of resources, opportunities, and development across different geographic areas or regions measured by both social and economic indicators (Shahaboonin et al, 2023). It is characterised by varying levels of access to infrastructure, services, education, healthcare, and economic opportunities across different parts of cities and regions, which can lead to significant disparities in the quality of life and well-being of people living in these different areas.

- **Spatial Justice**

  Spatial justice addresses the spatial dimension of inequality by acknowledging that access to resources, services, and opportunities can vary significantly depending on where individuals or communities are located. Spatial justice seeks to ensure that all people,

regardless of their geographical location, have equal access to essential services and opportunities that contribute to their overall well-being and quality of life. This includes access to education, healthcare, housing, public transportation, a clean environment, job opportunities, and other critical resources. Spatial justice recognizes that spatial inequalities can be caused by historical, political, economic, and social factors, and it aims to address these disparities through inclusive and equitable spatial planning and development policies (Soja, 2009; Van Wyk, 2015). According to Van Wyk (2015), spatial injustice can represent either the forceful detention of people in a small space or the unequal distribution of resources across space. Therefore, spatial justice can be interpreted as the equal distribution of resources across space.

1. CHAPTER 1: INTRODUCTION

CHAPTER 1: INTRODUCTION

1.1. Introduction

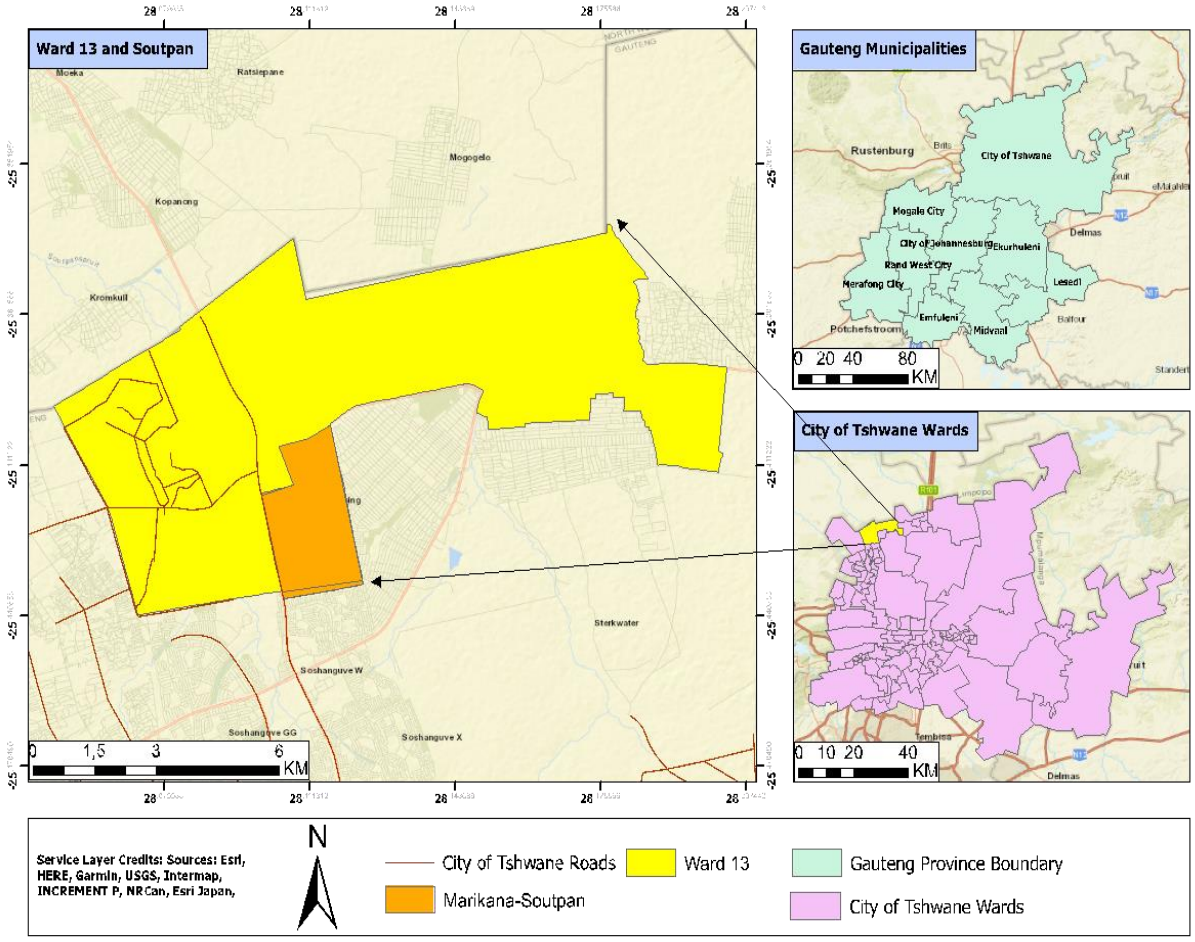
South Africa like many other Sub-Saharan countries is challenged by spatial inequality, which contributes to persistent socio-economic challenges. Previous planning systems that enforced exclusionary policies caused spatial fragmentation and limited access to socio-economic opportunities for the previously marginalised. Racial segregation was the order of policy planning and implementation during the Colonial and Apartheid eras. Skin colour determined the government's decisions concerning spatial location and socio-economic benefits (Berrisford, 2011). Spatial planning was used to exclude black and coloured people from privileged socio-economic centres and political rights in urban areas (Hindson, 1996; Todes & Turok, 2018; Van Wyk, 2015). Today, inequality and poverty in South Africa still display spatial patterns inherited from Apartheid planning. Poverty tends to be more severe in previously marginalised areas where poor residents, most of them black, still suffer from a lack of proximity to adequate socio-economic opportunities (Harrison and Todes, 2013). The end of Apartheid was a much-needed liberation, especially for black people. However, this period brought new challenges, including those related to rural-to-urban migration and urban sprawl (Cross, 2013). The Democratic government has attempted to rectify the Apartheid spatial legacy by implementing different legislations and policies such as the Development Facilitation Act (DFA) and Reconstruction Development Programme (RDP). However, the spatial inequality and fragmentation have persisted (Bikam, 2016; Howe, 2021). These policies are criticised for having intensified peripheral development by providing housing development far from employment centres and in turn contributing to the intensification of poverty (Gibson, 2012). The rapid urbanisation of the black population combined with the non-availability of land close to economic centres contributed to the densification of poor and peripheral settlements (former township areas) created by the Apartheid government (Strauss & Liebenberg, 2014). Bikam (2016) pointed out that post-Apartheid spatial policies and strategies have not yet been able to fully transform the spatial pattern inherited from previous regimes. Housing policies such as the Breaking New Ground Policy (BNG) and the RDP did not manage to completely redress the Apartheid spatial pattern by appropriately resolving housing shortages or creating integrated, self-sustainable human settlements (Sutherland et al., 2015). Thus, most of the previously marginalised communities are still affected by spatial inequality which is visible through the lack of socio-economic opportunities in peripheral human settlements. Presently, many of these previously marginalised communities are still forced to commute daily to have better access to socio-economic opportunities (Ballard, 2017).

Between 1960 and 1980, the estimated urban population in South Africa went from 47 per cent to 48 per cent. This minimal increase can be argued to have been contributed by the

influx control policies that were in place. The influx control policies were repealed in 1986 and rapid urbanisation took place. Between 1980 and 1990 the urban population increased from 48 per cent to an estimated 52 per cent (Lemon, 2021). The end of Apartheid further contributed to the increase in urban population as all racial spatial policies and legislation such as the Population Registration Act 1950 were repealed. By the year 2000, 57 per cent of the population lived in urban areas (World Bank Group, 2018). In the year 2020, the urban population rose to 67.35 per cent of the total population and it is projected to increase to 75 per cent in 2030 (South African Government, 2021). This increase in urban population translated to the rapid growth of Informal settlements as poor and marginalised urban dwellers struggled to access formal housing (Cross, 2013).

In the context of the Gauteng province, the poor results of earlier post-Apartheid legislations and policies were one of the major factors influencing the adoption of Mega Projects by the Gauteng Department of Human Settlement (GDHS), backed by the Gauteng Partnership Fund (GPF). These Mega Projects acknowledged that earlier post-Apartheid measures to address spatial inequalities and favour previously marginalised groups were fragmented. They were cementing the Apartheid spatial legacy by formalising human settlement in remote areas away from economic centres (GPF, 2022). The Mega Projects' vision is to develop socio-economic hubs in peripheral areas for the upliftment of the marginalised settlements in these urban peripheries and to correct the historical marginalisation of black settlements (GPF, 2022). However, this strategy is criticised, mainly for not addressing the issue of access to economic activities and employment for these new peripheral locations (Ballard, 2017; Charlton, 2017; Turok, 2015). Ballard (2017) suggests that mega human settlement policy strategies in urban peripheries are motivated by target chasing within the government's political arena. Moreover, the outcome of this kind of policy motivation is the key contributing factor to previous policy failures. Harrison and Todes (2017) highlight that the development of mega human settlements in peripheral areas mirrors the ideology of “new town” development. Moreover, for these strategies to be able to succeed, proper economic development to enable economic activities, and/or transport planning that could link these peripheral localities to the broader metropolitan region, must be prioritised. According to Turok (2015), the Gauteng Mega Projects were launched with no consideration of the possible impact on marginalised communities should these projects fail to deliver internal economic activities. Therefore, this study explored how the proposed Mega Projects planned to help redress spatial inequality and afford adequate access to socio-economic opportunities for the previously and still marginalised people in South Africa. Its specific focus is on the Tswaing Mega Project in the City of Tshwane Metropolitan Municipality (CTMM) which was to be implemented in the Marikana-Soutpan area.

1.2. The Study Area – Marikana-Soutpan Informal Settlement

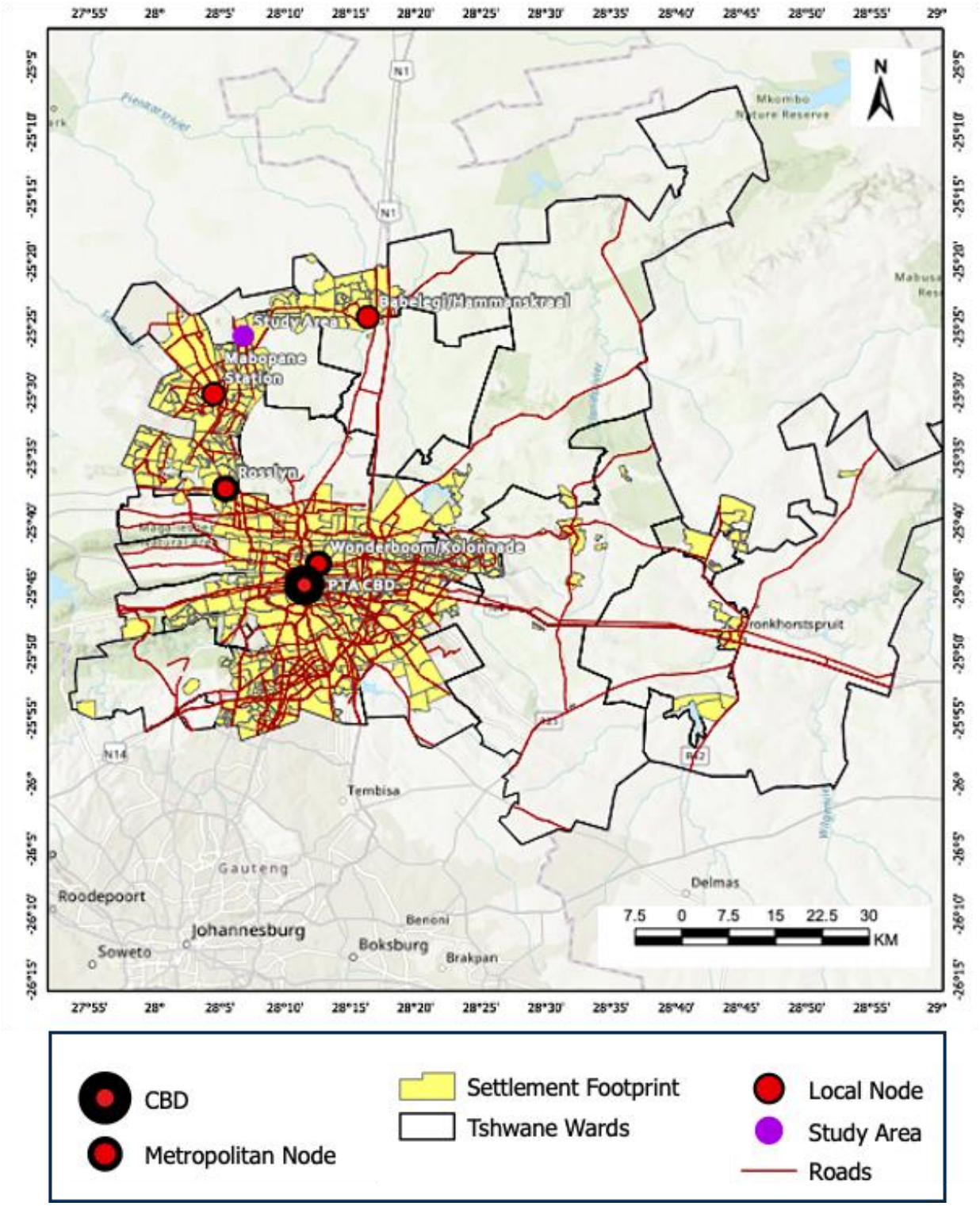


Map 1: The Study Area Locality (Source: Author)

Marikana-Soutpan Informal settlement is located within the peripheral settlements of Region 2 of CTMM in Ward 13 (***see Map 1***). The study area is approximately 415 hectares and shares its boundaries with Soshanguve, the older New Eersterust township and the Tswaing Crater nature reserve. The Marikana-Soutpan settlement was built-up in 2012 on a bush field, in 2021, it was estimated that 10,000 families live in this area (Rafapa, 2021).

As indicated on Map 1, the Marikana-Soutpan settlement is located on the outskirts of the CTMM, far from urban centres. The nearest centres that the Marikana-Soutpan community can access for economic opportunities are the Mabopane station local node and the Babelegi/Hammanskraal local node. Moreover, they can only access these nodes by commuting *(see Map 2 below*) and most of the dwellers rely on public transport (taxis) for commuting. The area does not have any large-scale economic activity, only small-scale

businesses such as tuckshops and food vendors can be found in the area. Social amenities can be accessed in other formal townships such as Soshanguve Block V and Block T.



Map 2: The Locality of Economic Nodes (Source: Author)

Map 2 indicates the localities of economic nodes in relation to the Marikana-Soutpan community. The nearest local economic nodes which include Mabopane station and Babelegi/Hammanskraal are located over 10km away from the study area while the Metropolitan node (*Roslyn and Wonderboom*) and the Central District Centre (CBD) are over 20km away. The Marikana-Soutpan dwellers are required to travel for any kind of formal economic opportunity. This reality aligns with Dewar's (2011) argument that in post-Apartheid South Africa, the travel cost required to access socio-economic opportunities magnifies people's marginalisation.

The Marikana-Soutpan informal settlement has improper municipal service infrastructure, ranging from unauthorised electricity and water connections to no municipal waste management services for the area. According to Rafapa (2021) from the Ground Up newsletter, the City of Tshwane started providing water tanks for the area only in 2019. Rafapa (2021) reported a high level of unrest from the community of Marikana-Soutpan due to the long wait for formalisation and proper municipal services.

1.3. Background

The Gauteng Department of Human Settlement launched the Mega Projects strategy on the 7th of April 2015 which included the Tswaing Mega Project. This project covered an already existing informal area, the Marikana-Soutpan informal settlement, although this was not recognized in the documents. The GPF describes Mega Projects as "Mega Human settlements representing a decisive departure from uncoordinated, small scale, low impact, and sporadic as well as unsustainable housing developments. The goal must be to achieve diversity in human settlements by emphasising mixed-income, high-density human settlements that emphasise social and economic inclusion, as well as promoting spatial justice" (GPF, 2022). The GPF and the GDHS identified nineteen Mega Projects, including the Tswaing Mega Project. The Tswaing Crater conservation area and the greenfield which is now occupied by the Marikana-Soutpan Informal settlement were the main triggers for Tswaing to become one of the Mega Projects.

This research investigated how the Tswaing Mega Project could affect access to socio-economic opportunities for the Marikana-Soutpan dwellers and redress spatial inequality. However, as the research progressed it became clear that this was a special case since the Tswaing Mega Project covered an already existing settlement. This was different from the general notion of Mega Projects being developed on greenfield land. According to Turok (2015), the strategy of peripheral greenfield being the target land for Mega Projects emanates from the fact that they are cheap and easier to develop.

After years of uncertainty about the project and during the period of this research, the ward Councillor indicated that the Tswaing Mega Project was discontinued in October 2022. Indeed, 7 years later the project was never implemented which means 10 years and counting of living with inadequate access to basic services for the dwellers. The ward Councillor also specified that an Upgrading of Informal Settlement Programme (UISP) would be initiated in February 2022 for the Marikana-Soutpan area. Rafapa (2022) reports that the GDHS's justifications for the cancellation of the project included budget constraints and the occupation of the land by the Marikana-Soutpan community. However, looking at the timeline of the land occupation (2012) and the launch of the Mega Project (2015), it is clear that there were other inconsistencies related to the project during the design and approval stages.

1.4. Problem Statement and Rationale

The Spatial Planning and Land Use Management Act's (Act 16 of 2013) spatial justice principle establishes that the government must ensure development that will redress the "past spatial and other development imbalance" through urban planning policy, development, and implementation (RSA, 2013). This comes after the fact that previous government systems have left a legacy of racial inequality that is persistent and visible in spatial geographies to date. As indicated, several policies including the RDP have been adopted and implemented with some success, but spatial inequality persists (Smith, 2021). The marginalisation of the population living in poverty is perpetuated by outcomes such as travel costs to access employment centres and other socio-economic opportunities (Dewar, 2011; Charlton, 2017; Turok, 2016; Ballard, 2017). This indicates that spatial inequality, marginalisation, and peripheral informal settlement in urban areas are related. Therefore, marginalised communities living in spatially fragmented areas should be connected as efficiently as possible to socio-economic opportunities. Given the existing dynamics of spatial inequality and fragmentation, it can be argued that "where you live matters" in countries like South Africa.

The government is still struggling to make peripheral settlements self-sufficient. The socio-economic status of current black peripheral settlements is still lower than that of previously white-only areas (Bikam, 2016). Marikana-Soutpan as one of these settlements is characterised by spatial fragmentation, located far from local and metropolitan nodes. The main strategy of the Tswaing Mega Project was to integrate socio-economic opportunities and spatial planning mechanisms of mobility and connectivity to develop self-sustainable nodes/hubs where people could live, work, and undertake leisure activities. However, as Turok (2015) emphasises, the Mega Projects strategy is vague; it lacks feasibility studies to determine the possible outcomes, and it makes promises on an experimental basis. Therefore,

it was necessary to study the Tswaing Mega-Project's possible effect on access to socio-economic opportunities for the Marikana-Soutpan dwellers based on the existing realities on the ground. In particular, it was necessary to understand how spatial planning and infrastructure investment related to Mega Projects could be used to promote access to socio-economic opportunities for marginalised people in spatially fragmented urban areas such as the City of Tshwane.

1.5. Research Objectives and Questions

The main objective of this study was to investigate how spatial planning and infrastructure investment could be used to promote access to socio-economic opportunities for marginalised people in spatially fragmented urban areas. The focus was on the Tswaing Mega Project in the Marikana-Soutpan community. The study's sub-objectives were:

- Analyse and identify existing socio-economic opportunities in the vicinity of Marikana-Soutpan.
- Investigate how the Tswaing Mega Project could enable adequate access to socio-economic opportunities for the area.
- Identify factors that might hinder and/or facilitate the implementation of the Tswaing Mega Project.

The main research question was: how can the proposed Tswaing Mega Project help redress spatial inequality and afford adequate access to socio-economic opportunities for the Marikana-Soutpan dwellers? Subsequently, the sub-questions were as follows:

- What types of socio-economic opportunities are available and desired by the Marikana-Soutpan community?
- How does the Tswaing Mega Project plan to enable adequate access to socio-economic opportunities for the Marikana-Soutpan community?
- What factors can hinder and/or facilitate the implementation of the Tswaing Mega Project in the Marikana-Soutpan community?

1.5.1. Expected Findings

The study expected to find that the Marika-Soutpan community does not have adequate access to socio-economic opportunities. While residents wait for the implementation of the Tswaing Mega Project they are forced to travel to alternative areas to access socio-economic opportunities such as access to schools, employment centres, etc. It was also expected that, if implemented, the Tswaing Mega Project would only deliver required social and municipal

services such as community centres, schools, water, sanitation, etc, for the Marikana-Soutpan community, neglecting economic activities and job creation.

1.6. Research Method

The research followed a qualitative case study method. The Tswaing Mega Project was used as a case study to investigate the possible impacts of Mega Projects on previously marginalised communities such as the Marikana-Soutpan community. Three types of data, both primary and secondary, informed the study: Qualitative interviews (*selective and unstructured interviews*), documentation review and passive participant observation. Additionally, Census data and the GCRO Quality of Life (QoL) data were used as secondary data to supplement the findings.

- **Qualitative interviews** – This was the primary data collection method that was used to answer the research questions. The study used "standardised open-ended interviews/ semi-structured and unstructured interviews." Three groups were identified and selected for interviews: the planners, the community members, and the ward councillor. Each group was asked different sets of questions during the semi-structured interviews. Twelve community members were selected using non-probability homogenous sampling, and convenience sampling was adopted. In convenience sampling, the researcher selects the respondents according to convenience and accessibility (Neuman, 2014). Please see Section 3.3.1. for a more detailed description.
- **Documentation Review** – This is a secondary data collection method that was used to support and supplement the primary data. Different types of documents relating to the study area and topic were reviewed ranging from the Tswaing Mega Project plan, policies, legislation, and strategies to general publications relating to the study area.
- **Passive participant observation** – This is also a primary data collection method that was used to support data collected from the documentation review and qualitative interviews. This method was conducted during the field visits to support the analysis of the findings.

1.7. Conclusion

In concluding the introduction chapter of this research, the chapters that form part of this report are outlined and discussed briefly.

Chapter 1: Introduction – This chapter introduced the research, presenting a background, context (study area), rationale and problem statement of the research. Moreover, it discussed research objectives, research questions and research expectations.

Chapter 2: Literature review – This chapter presents the review of relevant literature/academic papers relating to the study topic, to frame the debate about spatial planning, spatial inequality, and Mega Projects according to South African literature.

Chapter 3: Research Methodology – This chapter presents the methodological framework used to frame this research by discussing the rationale behind the research method used to support the study.

Chapter 4: The Marikana-Soutpan Development Project – This chapter presents and outlines the context of the study area and the GCRO QoL 2015/16 and the 2011 Census data for Ward 13 are discussed. Additionally, a documentation review of all relevant policy and legislation documents concerning the study area is analysed, including the Tswaing Mega Project plan.

Chapter 5: The Impact of the Tswaing Mega Project on the Marikana-Soutpan Community – This chapter presents the data collected from the qualitative interviews and participant observation and discusses the findings in relation to the research objectives.

Chapter 6: Conclusion – This chapter presents the analysis and interpretation of the findings in relation to the research objectives and the literature. Additionally, it concludes with research implications and recommendations.

2. CHAPTER 2: LITERATURE REVIEW

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

South Africa has experienced political and governance transformations that have affected the social and spatial characteristics of cities. Spatial policy, planning and implementation processes have changed over the years to suit different regimes (Hindson, 1996; Van Wyk, 2015; Berrisford, 2011). According to Van Wyk (2015), race-based legislation was originally introduced by the colonial government through legislation such as the Native Land Act of 1913 which restricted access to land for black and coloured populations, designating only 7.3 per cent of South African land to these groups. The Natives (Urban Areas) Act of 1923 prohibited the black and coloured population from owning land in urban areas, they could only access residence in urban areas for employment-related reasons. The Apartheid regime followed the colonial regime's footsteps. It passed legislation such as the Group Area Act of 1950 which segregated urban locations according to race and that led to black people being isolated to urban peripheries far from socio-economic opportunities (Van Wyk, 2015). Following the end of Apartheid, the ruling government had to come up with policy strategies to remedy socio-economic inequality and the marginalisation of black people (Van Wyk, 2015; Berrisford, 2011).

Two decades into democracy in South Africa, several trials, and errors in spatial policies and legislations including those related to the RDP contributed to the further segregation of black people; still, the key issue of social and spatial inequality persists (Muzenda 2022). Huchzermeyer et al. (2019) pointed out that many state-subsidised human settlements are provided at the urban edge, exacerbating the spatial fragmentation of South Africa. Mabin (2005) indicates that the early Democratic government failed to adequately address the housing challenges that emerged with the transition from Apartheid to a Democratic government. He further argues that this failure led to the continuation of the development of remote and partly serviced townships initiated by the Apartheid government (Mabin, 2005). Turok et al. (2021) indicated that upon the transition to a Democratic government, the new political leaders were inexperienced in addressing the spatial fragmentation of South African cities. Consequently, private developers were given the freedom to develop without objections through the DFA which led to the development of low-density gated residential areas on the other side of cities catering for only the upper- and middle class and disregarding the lower class (Turok, Visagie & Scheba, 2021). This trend has led to the development of the popular suburban areas which have now expanded to more than residential; where the upper-middle class are located and the township area, where the lower class are located (Mabin, 2005).

The adoption of Mega Projects by the Department of Human Settlements can be viewed as the government's 'big new idea' An attempt to provide large-scale housing in available

greenfield, with the utopian idea of self-sustainable settlements that would erase the stain of fragmentation from peripheral settlements. The Mega Projects acknowledged that earlier post-Apartheid measures to address spatial inequalities were fragmented. Mainly because they were cementing the Apartheid spatial legacy by formalising human settlement in remote areas far from economic centres (GPF, 2022). Therefore, their solution was to create self-sustainable peripheral hubs, where people can spend their leisure time, work and live; claiming the capability to deliver economic activities in urban peripheries (GPF, 2022). However, as Harrison and Todes (2017) argued, economic development has not been the central focus of the Gauteng Human Mega Projects, something that is essential for the successful deliverance of economic activities. Moreover, Turok (2015) emphasised the difficulty of large-scale human settlement projects in sparking internal economic activities, given their peripheral locations. Hence, Mega Projects as spatial strategies for peripheral settlements have been associated with experimental planning, and as strategies that seldom achieve their promised outcomes (Ballard, 2017; Turok, 2015). Mega projects support large-scale housing developments that are located in greenfield peripheries outside the urban edge which are not in line with the current South African spatial policy agenda. The current spatial policy agenda supports densification, compactness, and the prevention of urban sprawl, these include infill human settlement projects in already urbanised areas (Turok and Rubin, 2017).

According to the GDHS (n.d.) Mega Projects mainly focuses on social and economic infrastructure investment and spatial planning. Therefore, this literature review's main objective was to investigate how spatial planning and infrastructure investment can be used to promote access to socio-economic opportunities for marginalised people in spatially fragmented urban areas in South Africa. Moreover, the review focuses on the following:

- The causes of spatial fragmentation in South Africa.
- Spatial planning response to spatial fragmentation/inequality.
- Mega Projects' capability in addressing spatial fragmentation/inequality.

Therefore, this literature review is outlined in three sections: (1***) Spatial inequality and its possible triggers***, (2) ***Post-1994 Spatial Planning response to Spatial inequality*** and (3) ***Mega Human Settlement Projects and Peripheral Developments***.

2.2. Spatial inequality and its possible triggers in South Africa

Spatial inequality in South Africa has been a persistent and complex issue, stemming from historical political and economic factors such as the colonial era and the Apartheid regime's town planning policies that enforced racial segregation and discrimination. Currently, despite the policy efforts to redress spatial segregation enforced during the Apartheid era, the country

continues to grapple with spatial inequality that contributes to further socio-economic challenges (Turok, Visagie and Scheba, 2021). These challenges include sluggish economic growth which is associated with rising unemployment rates and high poverty levels (Turok, Visagie and Scheba, 2021). As a result, policymakers and scholars have built up an interest in spatial inequality as a form of inequality relating to the spatial distribution of socio-economic opportunities (David et al., 2018). Inequality is described as the position of being unequal in status and opportunities (Koh, 2020). Therefore, spatial inequality is the spatial dimension of inequality, and it refers to the unevenness in terms of socio-economic opportunities, service delivery, infrastructure, policy consideration, etc, across different geographical locations (Kuhn, 2015; Kim, 2008).

In the South African context, the town planning systems enforced across different regimes are among the major contributors to spatial inequality (Kim, 2008). The spatial division contributing to the current spatial fragmentation was intentionally planned and enforced in South Africa, first by the Colonial powers followed by the Apartheid regime (Todes & Turok, 2018). Legislation such as the Group Areas Act regulated the grouping and establishment of human settlement by race; land uses such as national roads, large industries, and rivers and forests all were used as buffers to enforce this segregation, isolating black settlements far from urban centres and economic activities (Todes & Turok, 2018).

The Abolition of Influx Control Act 68 of 1986 encouraged an influx of population in urban areas. The rapid urbanisation process that occurred was further amplified with the transition from Apartheid to a Democratic government. The previously marginalised people moved to urban areas seeking socio-economic opportunities such as access to employment (Lemon, 2021). The rapid increase of people in urban areas exposed the true reflection of inequality within the Apartheid government. Peripheral urban settlements and spatial inequality expanded as rural-to-urban migration processes took place (Cross, 2013; Mabin, 2005). Todes (2008) argues that private sector developers also contributed to spatial inequality by concentrating private investment in locations that were considered to be productive, neglecting other locations. Therefore, it can be argued that both the private sector and the government contribute to spatial inequality.

To further comprehend the causes of current spatial inequalities in South Africa, past planning systems are discussed in the next section.

2.2.1. Pre-1994 Spatial Planning

It is indisputable that post-1994 spatial fragmentation of South African cities stems from both the Colonial and Apartheid regimes. The beginning of Apartheid reinforced strategic

exclusionary approaches in spatial planning that the colonial rule had initiated (Van Wyk, 2015). Race-based spatial controls were the key foundations of the Colonial regime, which saw more strict and strategic enforcement during the Apartheid era. At first, the spatial plans for South African cities intentionally separated ethnic groups in terms of settlements. The city centre was provisioned for white people, coloured communities were located somewhere between white and black settlements and black people were forced to seek housing on the periphery of cities. The city centres were areas of attraction because of their proximity to socio-economic opportunities (Mabin and Smit 1997). Later in the 19th century, black South Africans were seen as non-permanent settlers in urban places and legislations such as the Native Land Act of 1913 and the Natives (Urban Areas) Act of 1923 regulated this. Black people were employed from rural areas and accommodated by their employers in private hostels that were strategically located around the city. These living quarters were one of the first forms of controlled municipal residential areas for black South Africans (Harrison, 2002).

At the beginning of the 20th century, the adopted discriminative legislation of the Colonial ruling was carried on into the Apartheid regime and was justified as a tool to disperse labour (Mabin & Smit 2017). During the 1950s this changed as more drastic racially biased laws were passed, which were very rigorously used to keep black South Africans in the homelands. These laws played a key role in realising the Apartheid regime's goal of separating the country into areas that were racially and ethnically divided (Harrison & Todes, 2015). Legislations such as the Prevention of Illegal Squatting Act 52 of 1951 played a significant role in effecting the spatial restructuring of Apartheid towns and cities in South Africa (Strauss, 2019). This Act regulated the illegal occupation of land by permitting the compulsion of black urban residents living on such land to move to established resettlement campsites, with severe criminal penalties for non-compliance. The Physical Planning Act 88 of 1967 was also crucial in guiding Apartheid's spatial segregation in South African urban areas (Strauss, 2019). This Act centralised the control of municipal planning processes and the management of black urban settlements by moving them to state administration boards. The planning practices implemented under this Act were ruled as ineffective and as the major contributor to the production of informal settlements on urban peripheries (Strauss, 2019). The 1960s and 1970s brought forth an inversion of the spatial structure in urban areas, as car ownership grew and the development of highways expanded (Mabin, 2005). The white middle class relocated from the city centre, and only the poor white, coloured, and black people were left inhabiting the central city areas. The city centres were painted with the brush of deterioration, places that were to be avoided, and the suburbs were seen as places where people longed to be and displayed success (Mabin & Smit 2017).

2.3. Post-1994 Spatial Planning and Spatial Inequality

After the end of Apartheid, the new government struggled to address the spatial fragmentation of South African cities (Turok, Visagie and Scheba, 2021). While the Apartheid legislations were repelled or cancelled and government institutions were restructured, a new vision for integrated cities was not sufficiently pressed (Turok et al., 2021). The Democratic government adopted the concepts of "reconstruction, reform and transformation" in spatial planning in attempts to address the inheritance of race-based inequality from the Colonial and Apartheid regimes. Notably, South African spatial planning has focused on reconstruction agendas through the colonial era, during the Apartheid regime, and today in Democratic South Africa (Harrison, 2002). These reconstruction agendas differ according to the political goals of their respective regimes. In the Democratic era, the goal is to deliver spatial justice and racial equality for the previously marginalised through equitable spatial and socio-economic investment planning. Turok Visagie and Scheba (2021), argue that the early post-Apartheid governance was inclined towards reconcilement rather than justice and restoration. They further argue that while numerous progressive policy agendas were adopted, these policy agendas were followed by unparalleled implementation strategies. The main agenda of the Democratic government was based on densification, compactness and the prevention of further sprawl and segregation through spatial planning (Huchzermeyer et al., 2019). However, as indicated, the implementation strategies of these policies did not deliver anticipated results. Todes (2011) indicates that the policy agenda of compactness in South Africa is hindered amongst other things by macroeconomics and political agendas that are not consistent with planning. The state of the early Democratic South African economy resulting from the Apartheid-era global sanctions, and the government transition unrest limited the availability of resources for major public socio-economic investment. The global sanctions excluded the South African economy from the rest of the world thus, the economy consisted of elevated inflation rates, inadequate growth and investment and struggling public funds.

Consequently, spatial restructuring policy agendas were viewed as one of the reasons for the lack of progressive results (Turok et al., 2021). At the beginning of the post-Apartheid era the world was moving away from state-led urban planning and land use control to market-based urban development and a lean urban governance system (Turok et al., 2021). Consequently, private investors and developers were granted a significant amount of freedom, which led to the establishment of several traditional single-standing dwellings, retail centres, and office spaces at low densities catering only for the upper and middle classes (Turok et al., 2021).

The provision of basic services infrastructure through formal housing provisions enforced by the Development Facilitation Act (DFA) and the RDP did not deliver the envisioned

improvement of spatial inequality. This policy and legislation delivered housing stock in the urban peripheries far from socio-economic opportunities thus, further contributing to the spatial pattern of Apartheid planning (Bikam, 2016). At the same time, it can be agreed that early post-Apartheid legislation and policies were successful in providing social security for the previously marginalised. Bikam (2016) highlights that the RDP was successful in making sure that the system included the previously excluded. However, as indicated it has done little to change the physical spatial pattern of the past regimes (Bikam, 2016). Sutherland, Sim and Scott (2015) pointed out that the 2004 BNG Policy resulted in mega housing projects that also failed to redress the Apartheid spatial pattern. This policy was also unable to appropriately resolve housing shortages or create integrated, self-sustainable human settlements (Scott, 2015). According to Sutherland et al. (2015), the BNG Policy advocated progressive and integrated human settlements; however, the implementation thereof was hindered by political interference. Todes (2011) indicated that focusing on the improvement of basic services, as the implementation of the BNG and RDP policies did, does not automatically improve the daily lives of the marginalised and fragmented communities. She indicated that a cluster of social and economic infrastructure is required for the success of spatial planning in creating integrated human settlements. Moreover, she emphasised that, in addition to a cluster of social and economic infrastructure investment, transport infrastructure is important for peripheral development (Todes, 2011).

To further apprehend post-Apartheid spatial planning response to spatial inequality, the next section focuses on the current spatial trends in South Africa

2.3.1. Current Spatial Planning

Presently, inequality and, more specifically, spatial inequality have made race crucial in the review of spatial planning conventions and concepts in South Africa (Van Wyk 2015). Van Wyk (2015) emphasises that one hundred years of past government neglect and marginalisation are important indications of the task at hand for the reconstruction of South African spatial structure. Huchzermeyer et al. (2019) emphasise that spatial policies within the Democratic government context promote planning notions of redistribution, compactness, and accessibility, which have not materialised. This indicates flaws in spatial planning implementation processes. The unequal distribution of socio-economic opportunities across space is one of the key contributing factors to spatial inequality that planning is out to address. Spatial planning and spatial inequality are therefore interrelated (Portnov & Pearlmutter 1999).

Taylor (2010) describes spatial planning as a mechanism that is concerned with understanding how human settlements work, the types of activities that are allowed in specific areas, and how infrastructure and services should be distributed to meet the needs of the population

within human settlements (Taylor, 2010). Spatial planning is also understood as a government function to guide future spatial development, it is concerned with land uses that can create a balance between the achievement of socio-economic objectives and the protection of the environment (Wegener, 1998 as cited by Yoshida et al., 2020). Stead and Nadin (2008), describe spatial planning as a mechanism to develop long-term and sustainable socio-economic spatial developments within nations to achieve integration between different sectors (energy, transportation, etc.,) taking into consideration the environment to improve national development (Stead & Nadin, 2008). The definitions indicate that spatial planning is a planning tool that can be used to guide development in space, taking into consideration different developmental sectors necessary for socio-economic balance.

Currently, the Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA) as the key legislation regulating spatial planning, seeks to address the shortcomings of the Democratic government's earlier adopted urban policies. SPLUMA identified development principles including the spatial justice principle which emphasises that spatial fragmentation should be addressed through access to land and the use of land. The spatial justice principle further indicates that the access and the use of land should be addressed through spatial planning systems (SPLUMA, 2013). This indicates that SPLUMA recognises spatial planning as the key tool to remedy the current spatial inequality.

In summary, the Democratic government's key mandate to achieve spatial justice can be described in two aspects. (1) Restructuring the spatial and social fragmentation caused by previous regimes, and (2) adjusting and planning for the rapid urban population growth which surfaces through development issues such as informal settlements (including peripheral informal settlements), unemployment in urban areas and overall, the lack of adequate socio-economic opportunities for spatially fragmented settlements.

Van Wyk (2015) divides spatial injustice/inequality challenges that the current spatial planning Legislation (SPLUMA) ought to address to achieve spatial justice into three categories:

1. **The elimination of segregation concerning race** – progress has been made for the previously marginalised. Currently the middle- and higher-income class can penetrate the suburban housing market and employment. There is still work to be done, to help the poor/lower income class access socio-economic opportunities and escape segregation.
2. **Compactness, intensification, and mixed development** - over the past 20 years, urban areas have expanded even further exacerbating urban sprawl. Although government policies indicated the intention to promote integrated and compact cities, policies such as RDP have been associated with urban sprawl. The RDP cemented

segregation patterns by providing and maintaining housing development at the periphery of cities where land costs are lower and large tracts of land are more readily available.

3. **Upgrading of informal areas and settlements** – significant housing provisions have been made, but the rate of informal settlements indicates that there is still a long way to go. According to the World Bank (2022), informal settlements in South Africa, including backyard dwellings, have steadily decreased from 26 per cent in 2010 to 24 per cent in 2018 and remained at 24 per cent in 2020. However, the complex challenges that can be observed in informal settlements such as unemployment are yet to be addressed for many upgraded areas (Van Wyk, 2015).

Spatial justice addresses the notion of equity, democracy, integration of human settlements, transparency, and public participation (Van Wyk 2015). Spatial justice and spatial planning are also correlated. According to Soja (2009), the outcome of spatial development/planning can help determine the unjust or just settings of space. Therefore, spatial justice is about the fair distribution of socially treasured resources in space. Spatial justice does not replace social, or other forms of justice, rather it frames justice from a spatial standpoint. Van Wyk (2015) argues that spatial justice is the combination of social justice and space, moreover, the way space is organised is important for societies because it reflects social truths and shapes social relationships. Manikoth (2018) also emphasises the connection between social justice and spatial justice, agreeing with Van Wyk (2015) on the notion that the urban fabric in which people are located can determine their livelihood and their level of access to socio-economic opportunities. It can be argued that the use and governance of land will reflect justice and/or injustice in space.

Turok Visagie and Scheba (2021), in their paper titled “Social Inequality and Spatial Segregation in Cape Town”, substantiate that socio-economic inequality has persisted to be associated with race in South Africa. However, the trigger is now associated with the labour market and the economy and not the Apartheid effects. Some previously marginalised people were able to penetrate the middle-high class settlements changing their socio-economic status and spatial inequality status however, a considerable amount of them is still marginalised. The labour force and the economy in general have not been able to produce sufficient employment to elevate most people (especially, from the previously marginalised group) from poverty and into better socio-economic status (Turok et al.,2021). Hence, understanding the relationships between locations where marginalised communities reside and the everyday life and opportunities of these communities is essential for comprehending spatial/social injustice and developing appropriate strategies to address spatial fragmentations.

The new strategy of mega human settlements projects adopted by the GDHS has taken a different route from all the other prevailing policies. It has moved away from the strategy of preventing urban sprawl by targeting peripheral greenfield locations for mega human settlement development far from existing economic centres. The next section discusses the strategies of mega human settlements in detail.

2.4. Exploring Mega Human Settlements Projects and Peripheral Developments

Sutherland et al. (2015) indicate that the South African housing policy objectives have moved from housing units to the development of human settlements through large-scale housing Mega Projects (Harrison & Todes, 2017; Sutherland et al., 2015). The GDHS considers mega human settlement projects as the next solution to address unsustainable peripheral developments and housing backlog. Mega Projects were adopted as the inclusive solution to address the shortcomings of the earlier post-Apartheid urban and spatial policies. Sutherland et al. (2015) emphasise that in the South African context, Mega Projects are presented as pro-economic growth and pro-poverty upliftment, given the consequences of past government systems. These housing Mega Projects are supposed to involve the development of peripheral human settlements that the government envisages as being self-sufficient (Ballard, 2017). However, Sutherland et al. (2015) also highlight the difficulties of Mega Projects to deliver both economic prosperity and improve social issues such as employment and poverty alleviation. They argue that Mega Projects are large-scale development initiatives reflecting state-supported neo-liberalism, characterised by complexity, massive scale, public-private partnerships, policy exceptionalism, comprehensive land use transformation, lengthy completion periods, and high costs.

The literature on housing Mega Projects in urban peripheries is of particular relevance to this analysis. For example, Rao (2020) analysed the Pradhan Mantri Awas Yojana initiative in India, which was launched in 2015. The Pradhan Mantri Awas Yojana project's objective is the construction of 11 million dwelling units to make India free of slums by 2022. India adopted 4 housing strategies with the aim of achieving this goal. The first was "In-situ slum redevelopment" where the focus was on upgrading slums in their existing location (most of which were in the inner city). This strategy resulted in the development of a small number of units that could not match the number of dwellers. The second was a credit-related funding scheme where the aim was to subsidise housing development in middle-high-class areas to allow access for working lower-class dwellers. The third was partnering with housing supply agencies to allow the development of affordable housing which resulted in the development of problematic peripheral settlements. The fourth was a beneficiary-focused construction

where they focused on dwellers who have land and require funds for housing constructions. The beneficiary-focused construction was identified as the strategy that yielded more housing stock approval; however, all four strategies were able to produce acceptable approvals (Rao, 2020). Rao (2020) indicated that the actual completion of these projects has not materialised as envisioned due to institutional-related challenges.

Egypt also adopted a mega housing project strategy in 2015. The objective was to construct a new administrative capital city with approximately 21 housing districts to house approximately 5 million dwellers. Egypt is characterised by a high population rate which is estimated to top 120 million in 2050, explaining the need to construct such extensive housing development (Nabawy et al., 2021). Nabawy et al. (2021), indicates that mega housing project in Egypt faces a lot of challenges which includes budget overrun and delays in implementation and delivery. It was indicated that this mega-housing project ran out of schedule in 2013 however, it was able to attract investments (including foreign investment) for construction purposes (Nabawy et al., 2021). Moser, Côté-Roy, and Korah, (2022) highlight the growing investment trend of foreign actors in Africa's new cities development and recommend investigations of these partnerships to understand their complexity and dynamics. Overall, these two mega-housing projects indicate that when undertaking Mega Projects, challenges should be expected especially those related to delays and budget.

This review focuses on mega human settlement projects that are proposed by the GDHS in greenfield locations available in urban peripheries. Previous policy failures and the drastic policy shift from small housing projects to Mega Projects have led scholars to question the assumptions underpinning these new strategies and point to their contradictions. The proposed Mega Projects strategy mirrors previously criticised policies by still providing housing development in the periphery of urban areas without the guarantee of internal economic activities. Additionally, they are not aligned with any of the South African prevailing policies that push for compact and integrated development (Ballard, 2017; Harrison & Todes, 2015; Turok et al., 2017).

Turok et al. (2017) emphasises the significant risk of mega human settlement projects aggravating the fragmented nature of South African urban areas and worsening spatial inequality, to the extent that these projects are unable to deliver sustainable internal economic activities. The Mega Projects' objective of creating self-sufficient peripheral hubs is also criticised for its actual ability to create employment beyond the short-term employment during the construction phase. Ballard (2017) suggests that some policies are flawed and motivated by target chasing within the government's political arena, suggesting that the government is chasing housing stock for political reasons and disregarding the spatial planning implications

and challenges of human settlements. He further highlights that the outcome of this kind of policy motivation is the key contributing factor to the previous development of peripheral human settlement in early post-Apartheid South Africa (Ballard, 2017). Turok (2015) emphasises that mega human settlement projects run the risk of accelerating the state of marginalisation for the affected people which the project's strategy overlooks.

To comprehend mega human settlement/housing projects the literature review looked at a similar housing project in South Africa that was implemented in alignment with policy strategies of integration and compact development.

2.4.1. Cornubia Mega Human Settlement

Cornubia is a public-private partnership development for human settlement in the Northern sections of Durban. Unlike the GDHS Mega Projects this project is located close to the urban core, and it is a mixture of greenfield and urban infill development. It is anticipated that this project will be the largest sustainable integrated human settlement venture in KwaZulu Natal. The project spans over 1300 hectares and is expected to cost R25 billion. This project was planned to rectify the spatial inequality that the past planning system caused. The project is considered one of the best illustrations of a local government programme that intends to construct a mixed-use, mixed-income community where people can work, live and undertake leisure. Moreover, the project connects the development with Phoenix, Ottawa, and Umhlanga through TOD and corridor development. The provision of public transportation, which will be planned as part of the Bus-Rapid Transport to connect the development with other areas, is one of the key components of this project. The project involved intergovernmental relations from local to national government for policy alignment purposes. The project was not without challenges, the completed Phase 1A of the project faced implementation challenges that delayed the commencement of the project by 6 years. In her research focusing on the implementation process of the Cornubia Housing Programme, Mzolo (2016) indicated that the project's initial concept/plan was restructured to accommodate and align the plan with prevailing legislation and policies. This action Indicates that policy alignment is important for the successful implementation of mega human settlement projects. The delay in the implementation of the project manifested as a major challenge that could be argued to have affected the housing beneficiaries waiting for adequate state-provided housing. However, the identified implementation challenges for this project were rectified.

Taking into consideration that this project came across challenges and delays regardless of its central locality, the next section will discuss peripheral human settlements.

2.4.2. Peripheral Human settlements

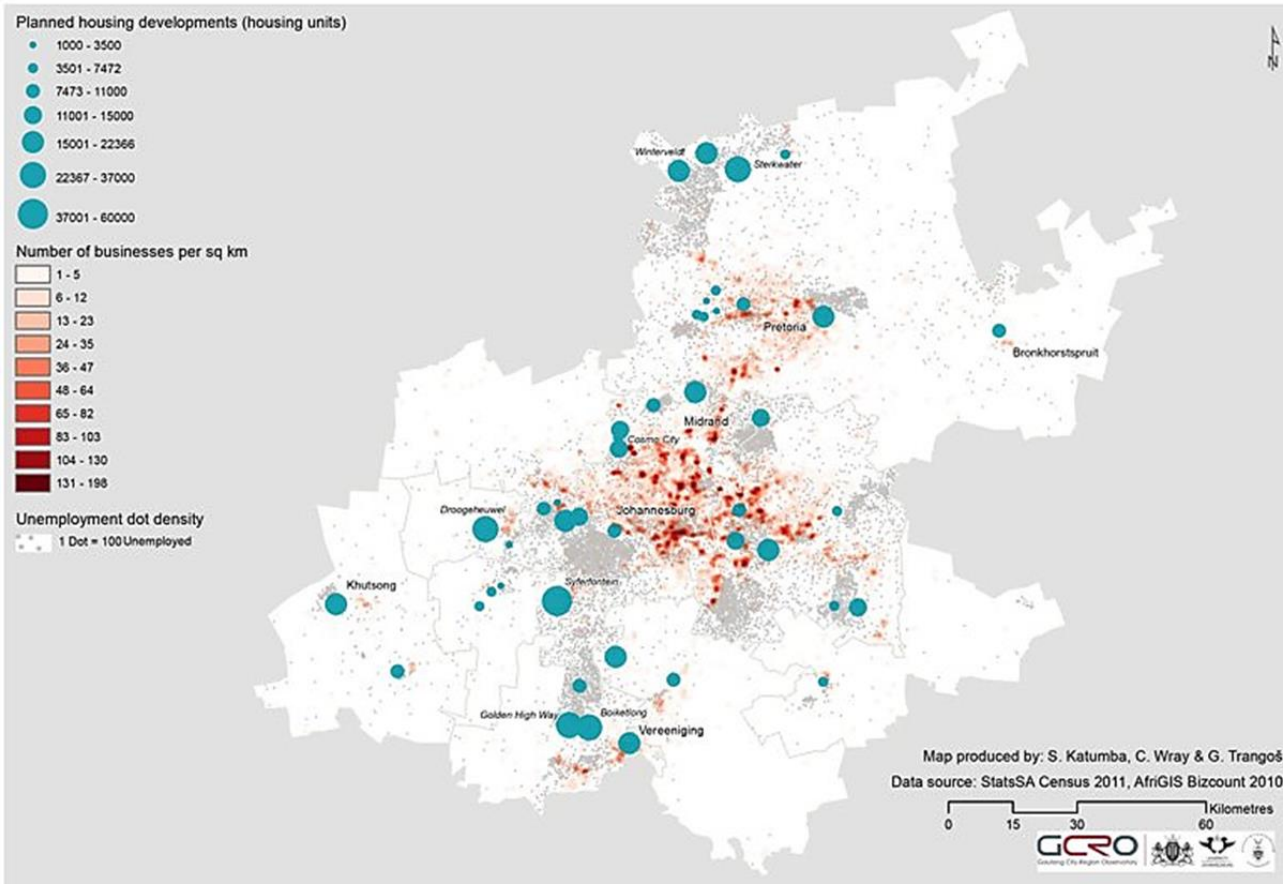
In the case of South Africa, peripheral human settlements are associated with informality. These areas can also be associated with "black townships" which were areas excluded from formal municipal planning during the Apartheid era. Jürgens and Donaldson (2012: 154) argue that the previously marginalised black townships have not experienced the expected transformation since the end of Apartheid. Todes (2011) argues that the combination of spatial planning with infrastructure development can positively impact growth and that for marginalised areas, it is important that an emphasis is placed on employment, socio-economic opportunities and service delivery. Therefore, it can be argued that the expected transformation of black townships has not materialised because socio-economic infrastructure investment has also not reached the expected standard. Peripheral human settlements are also associated with urban sprawl. The typical peripheral settlements are characterised by insufficient socio-economic opportunities meaning the dwellers are dependent on transport modes for access purposes. Consequently, accessibility and mobility are other major challenges for peripheral settlements which dwellers need for their livelihood and development prospects (Portnov & Pearlmutter 1999).

The notion of accessibility and mobility is not limited to access to employment centres. Venter et al. (2007) emphasise that accessibility and mobility are determined by proximity to socio-economic opportunities such as clinics, schools, shopping centres, etc. Conversely, access to public transportation systems is essential for peripheral settlements. Harrison and Todes (2015) attest to the importance of mobility and accessibility. They emphasise that mobility initiatives can improve access to socio-economic opportunities, which can include access to employment and other economic possibilities, educational and health facilities for the marginalised in peripheral settlements. This indicates that to improve access to socio-economic opportunities, peripheral dwellers should be afforded access to adequate public transport. It also indicates that large-scale human settlement projects such as the one adopted by the GDHS should be encouraged on already urbanised areas nearby existing economic hubs. Alternatively, Mega Projects should be planned and developed simultaneously to economic development projects and strategies to enable local economic activities. (Turok 2016).

2.4.3. Gauteng Human Settlement Mega Projects challenges

The locality of the Gauteng Mega Projects has been indicated as the major challenge to the successful implementation of these projects (Ballard, 2017; Harrison and Todes, 2017; Turok et al., 2017; Turok, 2015). Many of the Mega Project's locations are in peripheral areas far

from existing economic activities and close to areas that are already marginalised in terms of access and proximity to socio-economic opportunities (Wray et al., 2015). Map 3 indicates the relation between unemployment (*derived from the 2011 Census*) and locations of Gauteng Mega Projects, and it is clear these projects are located in areas of high unemployment and low to non-economic activities. Wray et al. (2015) and Harrison and Todes (2017) acknowledge the need for economic intervention in existing peripheral settlements created by Colonial, Apartheid and earlier Democratic governments. However, they also caution that should the Mega Project not deliver internal economic activities within these peripheral settlements as envisioned, the previously marginalised group will be left worse off. Harrison and Todes (2017) further argue that the adoption of these Mega Projects is predominantly focused on housing stocks with limited focus on economic development which cannot be guaranteed.



Map 3: GCRO Indication of Gauteng Mega Projects in relation to unemployment and business areas (Wray et al, 2015)

The biggest challenge to delivering economic activities to these proposed peripheral mega human settlements by the GDHS is anticipated to be the ability to secure funds to provide envisioned infrastructure, attract private sector investment and deliver appropriate economic activities (Harrison & Todes 2017; Turok, 2016). These Mega projects are also associated

with the notion of “new towns” which were first seen in the 1930s in Europe, as people moved to the outskirts of cities to escape what was considered unsustainably densified cities with growing slums (Harrison & Todes, 2017). The history of new town developments indicates that there were challenges and failures led to the establishment of developments such as the “Ghost Town” in China. New town development can be understood as a planned urban development designed and constructed from scratch. The new town developments are often located beyond the existing urban edge with a match between housing and job opportunities (and sometimes skills) within the new town (Harrison & Todes, 2017). The rationale behind new towns is to limit the need for commuting, making it crucial for the new cities to attract both population and economic activity while aligning the jobs on offer with the skills available locally (Harrison & Todes, 2017). Thus, internal economic activities are central to the creation of successful new town developments (Harrison and Todes, 2017). Ghost towns on the other hand are associated with large-scale housing developments that were established as “new towns” around an economic base (mines, heavy industries, etc.) which get deserted and abandoned as the economic base diminishes or as the environment deteriorates (Batty, 2016). In China’s case, ghost towns emerged as the result of urbanisation where developers over-supplied the housing units with inadequate economic activity development to attract the appropriate population (Batty, 2016).

Given the above, it is appropriate to question the ability of the Gauteng Mega Project to create sustainable peripheral settlements and not further exacerbate the marginalisation of poor South African citizens. The next section will discuss the literature on one of the first large-scale human settlement developments in Democratic South Africa in Gauteng that mirrors the strategies of the GDHS Mega Projects.

2.4.3.1. Lufhereng Mega Human Settlement

Lufhereng human settlement was the first biggest peripheral housing development project to address the housing need and reduce the list of people on the waiting list for adequate housing in Gauteng (Charlton, 2017). This project was one of the first Democratic government’s large-scale housing development projects that illustrate the idea of Mega Projects. In her article “*Poverty, subsidised housing and Lufhereng as a prototype megaproject in Gauteng*” Charlton (2017) indicated that the Lufhereng project did not yield formal economic activity as it was assumed at the design stage. Consequently, the dwellers were forced to create their solutions by establishing local businesses and altering the built environment and/or land use. Given the level of unemployment of the population addressed by the project, the author argues that this should have been anticipated and planned for. Charlton (2017) further highlighted the delays that took place in implementing and concluding the project as the other major implementation

challenges. Like with the Cornubia project, it can be argued that the delay and prolonged conclusion of the Lufhereng lengthened the marginalisation of people waiting for state-provided housing. People wait in informality, under challenging living conditions for the government to intervene as per legislation and policy.

Oldfield and Greyling (2015), refer to the daily struggles that come with living in informality as the “modalities of waiting”. This phrase refers to the challenges people living in informal settlements face daily because of their lack of adequate housing as they wait for the government to intervene. In explaining the continued delays in housing project implementation, Oldfield and Greyling (2015) argue that policies that shape housing provision in government are difficult to trace and hard to apprehend by the officials and the waiting dwellers. There is a clear indication that there are institutional challenges within government implementation processes of large-scale housing projects that should be addressed to avoid future delays in upcoming projects.

The next section will outline and discuss the conceptual framework that frames this literature review.

2.5. Conceptual Framework

Based on the literature, this study assumes that spatial inequality is a complex issue, influenced by numerous factors such as the lack of adequate socio-economic opportunities, spatial planning, the economy, and urban politics. Spatial planning including the government's direct policy planning and implementation processes, such as Mega Projects developments is one of the major direct influencers of spatial inequality through public expenditure allocation processes (socio-economic opportunities distribution). Socio-economic opportunities including mobility (provided by road infrastructure as well as transport services), as well as access to adequate education and health systems are major factors that spatial planning should highly consider for peripheral developments. Therefore, this study assumes that appropriate and well-planned spatial planning can enable adequate access to socio-economic opportunities to improve spatial inequality.

The study's assumption about the influence of spatial planning on spatial inequality in South Africa is supported by various factors. Spatial planning can have a positive effect on the allocation of resources and investments in different areas. However, if spatial planning decisions favour certain regions over others, then it can exacerbate social and spatial disparities. Access to socio-economic opportunities is crucial in addressing spatial inequality. Literature indicates that a significant proportion of the South African population is still located in areas that lack employment opportunities, quality services, and good schools and health

care facilities. Spatial planning can be influenced by (1) private developers lobbying spatial planning policies and legislation during public participation periods and (2) political leaders with competing interests within the government (Hofer et al., 2021). As seen in the early post-1994 period, political agendas were often chasing housing stocks instead of sustainable human settlements and that contributed to sprawling housing developments in already disadvantaged areas. Additionally, developers were able to influence development during the DFA period which resulted in private developments that only catered for the upper and middle class. Literature also indicated that the economy has not been able to produce sufficient and relevant employment to improve spatial inequality. Hence, the economy and the labour market can also influence spatial inequality.

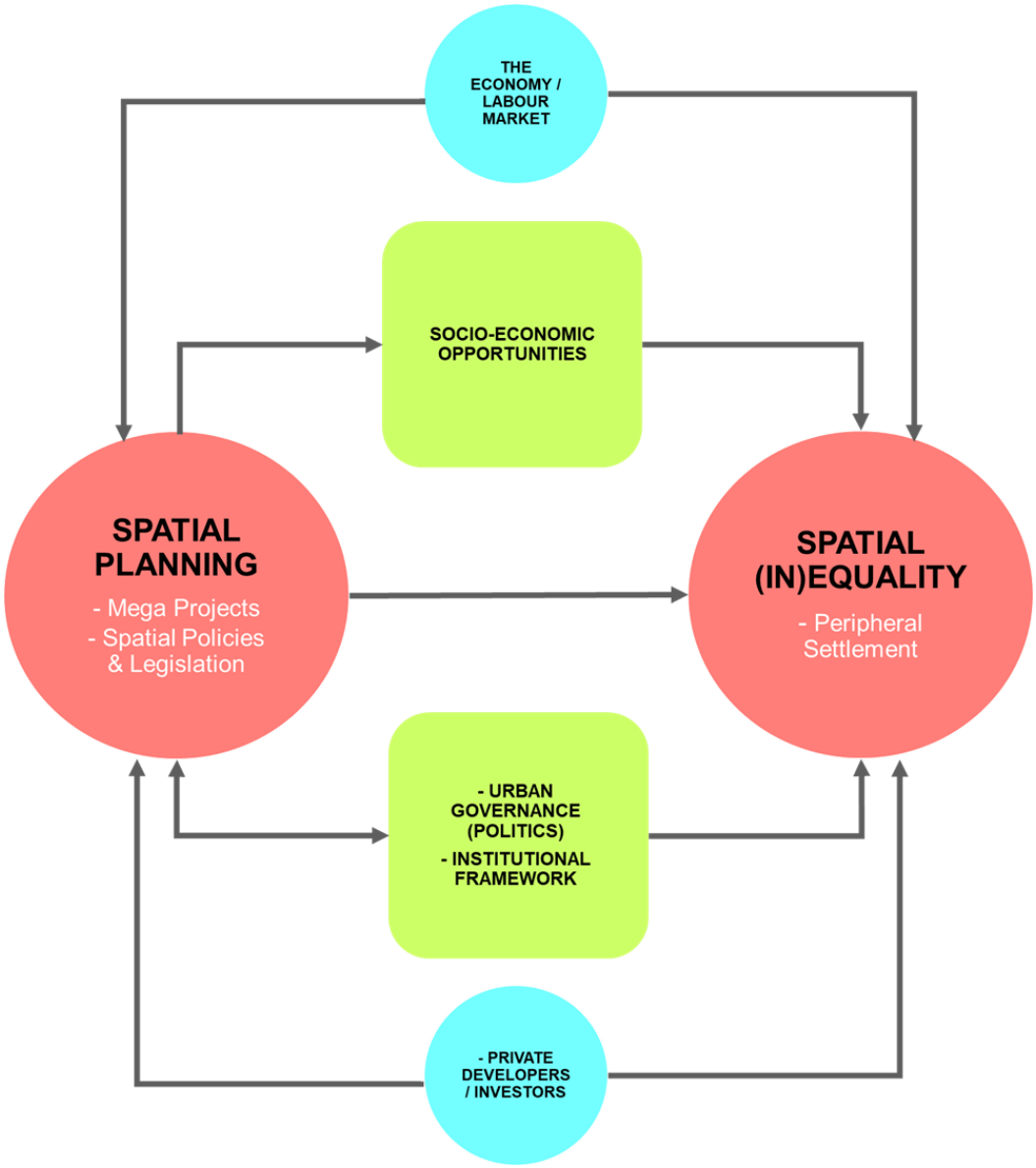


Figure 1: Conceptual Framework (source: Author)

In summary, literature indicated that achieving appropriate and well-planned spatial planning that can enable adequate access to socio-economic opportunities and improve spatial inequality is a complex task. In practice, implementing effective spatial planning that addresses spatial inequalities while also accommodating economic growth and development is dependent on external factors such as the economy, political powers, the private sector, and the labour market.

2.6. Conclusion

The literature review indicated that South African spatial inequality is rooted in the discriminatory nature of the Colonial and Apartheid regimes. Moreover, earlier post-Apartheid spatial and urban policies exacerbated the spatial inequality by delivering housing development in urban peripheries. Although policies such as the RDP which were enforced by the DFA were acknowledged for affording the previously marginalised access to formal housing tenure, its impact in exacerbating spatial inequality was also highlighted in several studies. The influence of private developers and financiers in pushing for development that catered for the middle and the high-income class in the early post-Apartheid era was also indicated as a contributor to spatial inequality in South African cities. The literature also indicated that progressive policy agendas were adopted; however, their progressive goals (of, for example, social and economic inclusion) were not matched during implementation strategies. This trend meant the continuation of patterns of marginalisation in areas without adequate socio-economic opportunities and far from viable economic activities. Spatial planning was indicated as one of the key mechanisms used to orchestrate racial segregation and inequality during the Colonial and Apartheid eras, and it was also identified as a solution to redressing the spatial fragmentation that resulted from those eras, however without success. In summary, literature on later periods of the post-Apartheid era indicates that (1) the lack of socio-economic opportunities in peripheral settlements, (2) spatial policy implementations that focus mostly on housing stock, (3) insufficient urban governance and politics, (4) private developers/investors development trends, (5) and the limited labour force and economy contributing to unemployment play a major role in influencing spatial inequality.

The “new big idea” of the GDHS to develop Mega Projects is still promoting peripheral settlement with the promise of delivering internal economic activities. Some evidence on large peripheral human settlements that mirrors the GDHS Mega Projects has indicated no success of these projects providing more than just adequate housing. The limitation of these large-scale human settlements to enable internal economic activities given the status of unemployment and the deprivation of people has led to the continued segregation of

marginalised people. The Cornubia project, however, has indicated that large-scale human settlement projects can be more successful when closer to existing functional economic centres and that other challenges which cause delays can be overcome.

3. CHAPTER 3: RESEARCH METHODOLOGY

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

This chapter outlines and discusses the research methodology that was used to conduct and compile this study. The research methodology is one of the most important parts of a research project. It can be described as the planning phase of a research project because it summarises measures that the researcher took to conduct and compile a research report (Leedy & Ormrod, 2014:74). This research followed a qualitative case study method.

3.2. Qualitative Research

Qualitative research aims to explain events that take place in the real world, as experienced by the people within the research limitations (Leedy & Ormrod, 2014). According to Leedy and Ormrod (2014), qualitative research can be described in two features; (1) it focuses on real-life events that take place in natural everyday living and (2) it involves the process of collecting information in real-life events that are at times complex to study. In simple terms, qualitative research aims to methodically rationalise natural events as experienced by certain people in their everyday lives.

3.2.1. Case Study Research Method

This research followed a case study method which can be described as the study of a complex topic in a comprehensive way, through analysis that is focused on daily realities and experiences. The Tswaing Mega Project and the Marikana-Soutpan community were identified as the focus of this qualitative case study research, which enabled an in-depth understanding of the study topic. The area of interest for this study was "***exploring the effect of spatial planning in delivering access to socio-economic opportunities to address spatial inequality - The case of the Tswaing Mega Project and the Marikana-Soutpan community***." Thus, data were collected at the case study area, the Marikina-Soutpan Informal Settlement.

Qualitative interviews and passive participant observation were the main primary data collection methods. The term "primary data" refers to information that the researcher has directly gathered. "Secondary data" refers to information that the researcher uses but was originally obtained by another party; examples of such information are policy documents (Hox & Boeije, 2005). The study deployed three main data collection methods: **two primary data** (1) qualitative interviews (*semi-structured and unstructured interviews*), (2) participant observation, and **one secondary data** (3) documentation review. The data is collected from the location of the Tswaing Mega Project known as Marikana-Soutpan informal settlement to develop an understanding of "*spatial planning and infrastructure investment in promoting*

access to socio-economic opportunities for marginalised people in spatially fragmented urban areas such as the Marikana-Soutpan informal settlement."

The research design for this study can also be described as a descriptive study because the main objective was to understand the relationship between spatial planning and spatial inequality by investigating current spatial planning mechanisms (Tswaing Mega Project) for the Marikana-Soutpan community. Dulock (1993) explains the purpose of descriptive studies as the action of systematically and accurately describing characteristics and truths of a specific group or area of interest.

3.3. Data Collection Methods

The types of data collection methods that informed this study will be discussed in the following section: (1) qualitative interviews (*semi-structured and unstructured interviews*), (2) passive participant observation and (3) documentation review. Moreover, additional secondary data sources that were used to supplement the findings are also discussed.

3.3.1. Qualitative Interviews

This section will focus on discussing the sampling strategy and the types of qualitative interviews adopted for this study (1) standardised open-ended or semi-structured interviews and (2) unstructured interviews.

3.3.1.1. Sampling Strategy

The research used a non-probability homogenous sampling, additionally, convenience sampling was adopted. A non-probability homogenous sampling entails selecting individuals who have common traits or qualities related to the research objective (*for this study, this would be individuals residing in the Marikana-Soutpan settlement under similar circumstances*). The objective is to produce a sample that is largely uniform or similar in terms of significant characteristics in relation to the overall study objective (Neuman, 2014). In convenience sampling, the researcher selects the respondents according to convenience and accessibility (Neuman, 2014).

There is no consensus when it comes to sample sizes for qualitative research. Several scholars have tried to indicate the actual sample size for different qualitative research. However, Sandeloski (1995) indicates that a sample size of qualitative research should be determined by evaluating the quality of the information collected against the research objectives. Sandeloski (1995) further argues that qualitative research is not concerned with variables, instead, it focuses on "maximising the understanding". For homogeneous sampling,

Bekele and Ago (2022) indicated that 12 to 20 participants are sufficient to reach saturation, that is when enough information is collected from the respondents that no new themes, information and/or topic are emerging. The objective of this study was to "investigate how spatial planning and infrastructure investment could be used to promote access to socio-economic opportunities for marginalised people in spatially fragmented urban areas by looking at the case of the Tswaing Mega-Project in the Marikana-Soutpan community." Therefore, this research aims to contribute to an understanding of the impact of Mega-Projects on informal communities.

A total of 12 community participants were interviewed, 1 CTMM Official and the Ward Councillor. Table 1 indicates the profile of participants according to gender and age estimation. The small sample size is recognised as a limitation because it might impede the ability of this study to capture the research topic fully.

INTERVIEWS SAMPLING SIZE		
Community Participants	*Gender*	*Age Estimation*
1	Female	40 - 49
2	Female	20 - 29
3	Female	30 - 39
4	Female	30 - 39
4	Female	30 - 39
6	Female	40 - 49
7	Male	50 - 59
8	Female	40 - 49
9	Female	30 - 39
10	Male	30 - 39
11	Male	30 - 39
12	Female	40 - 49
Official Participant *(CTMM Planning Professional - Housing Department*	*Gender*	*Age Estimate*
1	Male	30 - 39
Ward Councillor	*Gender*	*Age Estimate*
1	Female	60 - 69

Table 1: Sample Size Data (Source: Author)

During the process of preparing for this study, a permission letter from the Gauteng Department of Human Settlement to conduct this research was requested and received (**see Appendix D**). However, upon the request to access the Tswaing Mega Project plan, no proper

feedback was given by the GDHS officials and none of them were available to participate in this study. Therefore, an official from CTMM and The Ward Councillor were identified as alternatives to fulfil the research objectives.

3.3.1.2. Standardised Open-ended Interviews or Semi-structured Interviews.

Standardised open-ended interviews or semi-structured interviews can be described as interviews that entail consistent questions that are asked to all participants in the same manner, with no restriction on how the participants may answer (King and Horrocks, 2010). They can also be described as interviews that the researcher conducts with a group of different people in the same space, to gather information for a specific topic of interest. They aim to clearly explain the meaning and importance of the fundamental and base subject of the overall topic of interest. The interviews were conducted to gather and understand the realistic information from the respondents and understand the meaning of the gathered information (Kvale,1996). Initially, two groups of participants were identified for participation in the research interviews: (1) the officials who were meant to be government officials involved in the planning and implementation of the Tswaing Mega Project which included mainly the GDHS planners; and (2) the community members. However, the former was not available to participate in this study. Consequently, the CTMM Planner and the Ward Councillor participated in the study additionally, the traditional leaders for the study area were also identified to participate in the study, but they were also not available to participate. Therefore, semi-structured interviews were conducted with the community members and the CTMM planner. Additionally, an unstructured interview was conducted with the Ward Councillor (***this is discussed in section 3.3.1.3.***). Each group (*the community members and the CTMM planner*) was asked different sets of questions during the semi-structured interviews. The community members were asked questions concerning their daily life in the Marikana-Soutpan settlement. The questions were able to capture an understanding about the nature of access to socio-economic opportunities in the settlement. The CTMM planner questions were in relation to the Tswaing Mega project plans, and the rationale behind the adoption of the project. The aim was to understand the standpoint of the government with regard to the Marikana-Soutpan community. Please see **Appendix A** for the detailed questionnaires.

The community members

As specified earlier a convenience sampling strategy was adopted. This type of sampling strategy is suitable when the aim is to access respondents who are readily accessible and willing to participate in the study (Neuman, 2014). Therefore, to source out the community members who participated in the study, the researcher walked around the area and approached community members according to convenience and availability and explained the

study. The researcher made appointments with the community members who agreed to participate in the study. Upon the interview meeting with each community member, the researcher explained the anonymity and confidentiality of the interview and that the information collected was going to be used for the compilation of this research only. To collect the interview data permission was requested to record the interviews and 11 out of 12 participants gave consent. Additionally, the researcher took notes during the interviews. All the participants signed a consent form for participating in this study (**see Appendix B for the participants' consent form template**). The following is an overview of the open-ended questions that were asked to the community members:

1. Why did you choose to settle in the Marikana-Soutpan areas within the Tswaing area?
2. Why did you move to this area? Where did you come from?
3. What activities do you do on a typical day? What about your other household members?
4. How do you feel about your chances to access socio-economic opportunities? Do you think that you have a fair chance to access them, or do you face challenges?
5. What intervention(s) do you think can improve these challenges?
6. Do you know about the proposed Tswaing Mega Project coming to your area and its plans to bring new developments to the Marikana-Soutpan If so, what do you think about the project?
7. Do you expect that the project will bring new socio-economic opportunities?
8. What do you expect Marikana Soutpan Settlement to be in future?

The CTMM Planner

To secure an interview with the CTMM Planner, the researcher sourced the contact details of the relevant planner from the Municipal contact list directory and booked an appointment with him. The interview took place on Microsoft Teams. Before the interview, the Planner was furnished with a research information sheet (see **Appendix C**) detailing the research and the interview process. The Planner agreed to the recording of the meeting for the purpose of collecting data only. Additionally, he could not sign the consent form however, he consented verbally. The following are the open-ended questions that were asked to the CTMM planner:

1. What types of socio-economic infrastructure can be found in the Marikana-Soutpan area and what are their conditions?
2. What factors led to the adoption of the Mega Project in the Marikana-Soutpan area?
3. How is this project integrated with other planning policies such as the national/provincial/local SDFs?

4. How does this project plan to provide sustainable long-term employment?
5. How is the project planning to promote access to socio-economic opportunities in the area?
6. How has public participation been considered in this project?
7. Are there factors hindering and/or facilitating the implementation of the Tswaing Mega Project? What are these factors?
8. How has the local community responded to the project?
9. How do you see the Marikana-Soutpan Human settlement in future?

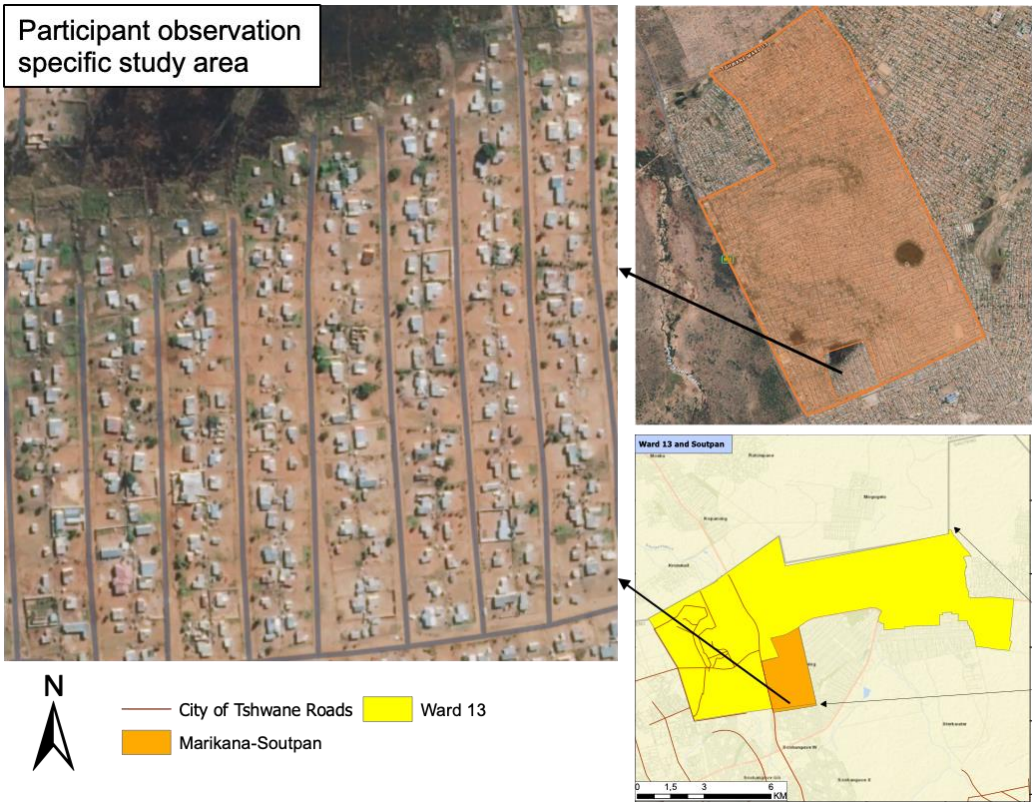
3.3.1.3. Unstructured Interviews

The study also employed an "unstructured interview" with the political leader (*ward Councillor*) of the area. This was adopted to fill in the missing gaps from data collected from interviews with the Marikana-Soutpan community members and the CTMM Planner. Unstructured interviews are characterised by the lack of a predetermined framework and/or set of questions. The unstructured interviews enable an organic interaction between the researcher and the participant with no prior classification, the researcher communicates with the participant and formulates questions following the participant's narrated experiences (Zhang & Wildermuth 2009). Zhang and Wildermuth (2009), indicate that unstructured interviews are not "random"; the researcher must have comprehensive knowledge of the study topic/issue. For this research, the researcher started the interview by broadly asking about the status of the Tswaing Mega Project and accordingly the Ward councillor narrated her experience/view in the subject matter and follow-up questions were created in line with her narratives. The follow-up questions included questions that were trying to investigate (1) the establishment of the study area, (2) reasons for the 10 years delays for intervention and (3) the Government's future plans for the settlement. To secure an interview with the ward Councillor, the researcher sourced out her details in the CTMM Councillor contact details directory. Upon the interview meeting, the researcher explained the details of the research and the confidentiality of the information provided. The Councillor consented to the recorded interview and signed the consent form.

3.3.2. Passive Participant Observation

Participant observation can be described as a qualitative data collection method that allows the researcher to observe the target group related to the area of the topic (*in this case the Marikana-Soutpan community in their everyday lives*). It involves connecting the researcher to the same or similar experience that the respondents experience by allowing the researcher to also participate, observe and record human behaviour and interaction in an organic setting (Bernard, 2006). A passive participant observation was conducted during field visits to support

the analysis of the interview data. The qualitative interviews were conducted in order to investigate the Marikana-Soutpan dwellers' access to socio-economic opportunities. The participant observation was conducted to observe the dwellers in action (their daily lives) with the kind/level of access they are afforded. Passive participant observation entails the researcher observing human behaviour and interaction without actively participating in the activities and interacting with the people he/she is observing. For this study, the researcher observed the functionality of the study area and observed the interaction between the people and socio-economic opportunities around. Additionally, the researcher took notes along with pictures to capture the observations, the pictures did not include any human faces as per ethics consideration approval. Using this method, the researcher was able to identify different behaviours and interactions that the interviews and other data collection methods could not uncover. Hence, this type of data can cover some of the limitations of other data collection methods used in this research (Bernard, 2006).



Map 4: Participant observation focused area (Source: Author)

Given that the study area (the Marikana-Soutpan community) is 415 hectares in extent, a portion of approximately 16 hectares of the study area was selected based on convenience and accessibility (***see the Participant observation specific area Figure below***) to focus the observation. ***It is important to note that the 16-hectare portion of the study area was only selected for the participant observation, the study area still remains the entire***

settlement of the Marikana-Soutpan settlement (*see Map 4 above****)***. The criteria for selecting this portion were based on convenience and accessibility for the researcher to be able to walk around safely. The objective of the observation was to understand how the Marikana-Soutpan community fulfils their daily needs and wants with the level/kind of socio-economic opportunities they can access. The participant observation was conducted under a limited timeframe because of the duration of the research. In conducting the observation, the researcher walked around the identified area as though she was passing through without the community members knowing she was conducting an observation.

3.3.3. Documentation Review

Documentation review is an organised method for reviewing documents relating to a study topic and requires the researcher to interpret identified documents (Corbin & Strauss, 2008). Documentation review is like other qualitative data collection methods, it necessitates a systematic review of topic-related documents. Moreover, the interpretation of the data is important for extracting meaning (Bowen 2009). Different types of documents relating to the study area and topic were reviewed ranging from the Tswaing Mega Project plan, policies, legislation, and strategies to general publications relating to the study area.

The key policy and legislation documents that were reviewed place particular emphasis on the study topic (*spatial planning and informal settlement promotion*) which were the following:

- The Tswaing Mega Project
- City of Tshwane Municipal Spatial Development Framework (MSDF)
- Regional Spatial Development Framework (RSDF)
- The Constitution of the Republic of South Africa, 1996
- The National Development Plan Vision 2030 (NDP)
- Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)
- Housing Act 107 of 1997
- Breaking New Ground 2004 (BNG)
- Upgrading Informal Settlement Programme (UISP)

3.3.4. Other Data Sources

The GCRO 2015/16 Quality of Life (QoL) ward data was used to comprehend the level of marginalisation within and around the study area. Additionally, the latest Census (2011) and spatial information (2022 zoning information and the RSDF 2018 data) for the study area were also gathered and analysed as supporting data for the research. The spatial information from the City of Tshwane e-GIS viewer was used to comprehend the current mobility and socio-economic access of the study area. The spatial data included spatial representation of health

facilities, educational facilities, parks and recreation and retail/economic nodes, to measure the travel distance for the Marikana-Soutpan community to access these facilities in relation to the CSIR Red book: The Neighbourhood Planning and Design Guide:

3.3.4.1. The CSIR Red Book: The Neighbourhood Planning and Design Guide.

The Neighbourhood Planning and Design Guide, generally known as "the Red Book " was first published in 2000 by the CSIR. The 2019 version is an updated and reviewed document that is supposed to guide the development of human settlement for planning and design purposes. The creation of this document was introduced and sponsored by the National Department of Human settlement in collaboration with the CSIR who were responsible for the final product of the document. The application of the guiding document is expected to produce settlements that exhibit infrastructure and facilities that can afford communities sustainable settlements. The guidelines range from layout designs for different settlements to housing designs. For this research, the focus was on Part 2 (H) of the documents (**Housing and Social Facilities Guidelines**); these guidelines were used to measure the level of access to socio-economic opportunities for the study area (the Marikana-Soutpan community).

3.4. Data Analysis and Interpretation

Data from the different types of data collection methods used for this study were ordered and analysed using the following steps:

DATA ANALYSIS PROCESS	
INTERVIEWS	**Starting point:** Raw data collected during the interviews (answer sheet filled by the researcher and recordings). **Step 1:** Familiarisation of the answer sheets and recordings – looking at relationships, similarities, and differences between the participants' interviews. **Step 2:** Focusing on data collected – focusing on the ideal theme by reviewing the data in relation to the research objectives. (Focusing on questions that the study should answer) **Step 3:** Grouping data – identifying and categorising ideal themes concerning the research objectives. **Step 4:** Finding relationships and patterns between identified grouped data.

	Step 5: Interpreting data – interpretation of data by looking at implications, meanings and overall discoveries using a narrative approach.
PARTICIPANT OBSERVATION	**Starting point:** Raw data collected during the observation (notes and pictures by the researcher during the observation. **Step 1:** Familiarisation of the observation notes and pictures – identifying any impressions from the data. **Step 2:** Focusing on data collected – focusing on the ideal theme by reviewing the data in relation to the research objectives. (Focusing on questions that the study should answer) **Step 3:** Grouping data – identifying and categorising ideal themes concerning the research objectives. **Step 4:** Finding relationships and patterns between identified grouped data. **Step 5:** Interpreting data – interpretation of data by looking at implications, meanings and overall discoveries using a narrative approach.
DOCUMENTATION REVIEW	**Starting point:** Selection of documents – Relevant policies, legislation, spatial data from the City of Tshwane GIS and Media Outlet. **Step 1:** Familiarisation of the selected documents – Skimming each document looking at relationships, similarities, and differences between data in relation to the study objective. **Step 2:** Focusing on each selected documents – Read the documents focusing on the ideal theme that relates to the study objective for each document selected (focusing on questions that the study should answer) **Step 3:** Grouping data – Identifying ideal themes in relation to the study objective. And give meaning to the text. **Step 4:** Finding relationships and patterns between identified grouped data. **Step 5:** Interpreting data – interpretation of data by looking at implication
OTHER DATA SOURCES: The GCRO QoL data	**Starting point:** Selection of Ward 13 data – Census 2011 and GCRO QoL data 2015/16. **Step 1:** Familiarisation of data – identifying any impressions and relevance of the data to the research objectives for selection.

2015/16 and the 2011 Census	**Step 2:** Focusing on selected data– focusing on relevant themes by reviewing the data in relation to the research objectives. (Focusing on questions that the study should answer) **Step 3:** Finding relationships and patterns between selected data and other data sources. **Step 4:** Interpreting data – interpretation of data as published, looking at meanings and overall discoveries using a narrative approach.

Table 2: Data Analysis (Renner & Taylor-Powell, 2003)

Throughout the process of analysis and interpreting the data collected, conceptualisation of the data also took place as a way of making sense of and putting the collected data in order (Neuman, 2014). The conceptualisation of data involved defining and interpreting the grouped data. Data collected and findings were presented in this research report using a narrative approach. This approach presents data or findings in a logical sequential way; the researcher narrates the story/study as they experience it (Neuman, 2014). In analysing, interpreting and presenting the findings, the following maps were created by the researcher:

- Map 1: Study Area Locality – This map was created to spatially present the study area in the context of the City of Tshwane and Gauteng.
- Map 2: Locality of Economic Centres – This map presents the locality of economic centres relative to the study area.
- Map 8: Current Socio-Economic Opportunities – This map presents the locality of socio-economic opportunities relative to the study area.
- Map 11: Illustration map for public transport accessibility – This concept map presents public transport routes for the study area.

3.5. Study Limitations

There were a number of factors that the researcher had no control of during this study which may have impacted the results of study. These include:

- The unavailability of the Tswaing Mega Project's unpublished plans to the researcher for analysis. Acquiring detailed documents relating to the Tswaing Mega Project or Mega Projects was not possible for the researcher as these are unpublished documents, which were not made available for consultation despite requests. Thus, the documents analysed for this study might not completely reflect the actual strategy of the Tswaing Mega Project.

- The unavailability of the relevant GDHS Officials to participate in the study. This limited the extent of information the researcher could access regarding the Tswaing Mega Project, particularly, the implementation processes and the challenges that were encountered.
- The small sample size of 12 interviews may not offer a full picture of the local community. The researcher thought to mitigate the negative effects of this small sample size by looking at secondary sources, namely, newspaper reports.

3.6. Ethical Consideration

A required ethical clearance application was lodged and approved; this approval factored in possible risks that could have occurred during the data collection of this research. It took into consideration the researcher's interaction with the interview participants ensuring anonymity and confidentiality in the compilation and reporting of this research.

Ethical Protocol/clearance number: **SOAP104/07/2022 (*see Appendix E)***

3.7. Conclusion

In conclusion, this chapter outlined and discussed the research method followed to compile this research report. The study limitations were also presented, notably, the lack of access to official project information and the small number of in-depth interviews. In this regard, it is worth mentioning that, as a case study of a megaproject plan interacting with an informal community, it is not the objective of the report to generalise findings, but to shed light on the fact that there are conflicts and contradictions related to these developments. The next chapter outlines and discusses the context of the study area and data from the documentation review.

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4. CHAPTER 4: THE MARIKANA-SOUTPAN DEVELOPMENT PROJECT

4.1. Introduction

This Chapter outlines the documentation review data for this research. The documentation review was used to supplement the collected primary data. The 2011 Census data and the GCRO QoL 2015/16 ward data were also reviewed in order to support the primary data. Therefore, this chapter first discusses the demographic background of the Marikana-Soutpan informal settlement. Second, the current spatial and socio-economic context of the settlement are analysed. Third, the Tswaing Mega Project is discussed in relation to the research objectives. Lastly, policy and planning documents related to the study area are reviewed and discussed.

4.2. Statistical Background

As mentioned in Chapter 1, Marikana Soutpan is located within Ward 13 on the outskirts of the CTMM (See Map 1). The CTMM is one of the largest municipalities in South Africa, covering approximately 45.2 km^2. It consists of four previously black townships, one of which is where the study area is located. The study area shares a boundary with Soshanguve and New Eersterust (CTMM, 2022). Currently, the study area can be described as a typical informal settlement characterised by a lack of socio-economic opportunities. Typically, informal settlements do not have neighbourhood-level data hence, there is no published data on Marikana-Soutpan informal settlement, the only available data is on Ward 13. Therefore, to get an idea of the demographic status quo of the Marikana-Soutpan community, the 2011 Census and the GCRO QoL 2015/16 data for Ward 13 is discussed below.

4.2.1. Ward 13 Demographic Information

The 2011 Census data is the latest demographic information available for Ward 13. The Marikana-Soutpan Informal settlement was established in 2012 thus, the 2011 Census data can be outdated and not reflect the true nature of the current state of Ward 13. The GCRO QoL 2015/16 data was used to supplement the 2011 Census data. Newspaper reports were also used. Ozgun, and Broekel (2022) indicate that press releases can be used as complementary and alternative data sources for studies about the allocation and change of socio-economic activity in space. Therefore, newspaper articles were used as complementary data to fill in the gaps in this report.

The total population for Ward 13 was estimated to be 27,224 in 2011 before the Marikana-Soutpan area was established in 2012. As already mentioned, it can be assumed that this estimated 2011 population would not reflect the true population size of Ward 13 today (*please see Figure 5 indicating the occupation of the Marikana-Soutpan area in a year, increasing the*

population of Ward 13). The Ground Up media outlet's press release dated 26 April 2021 indicated that the Marikana-Soutpan settlement alone accommodated over 10,000 families. Amongst the population of Ward 13, 99 percent were estimated to be black, see Figure 2 below (Census, 2011).

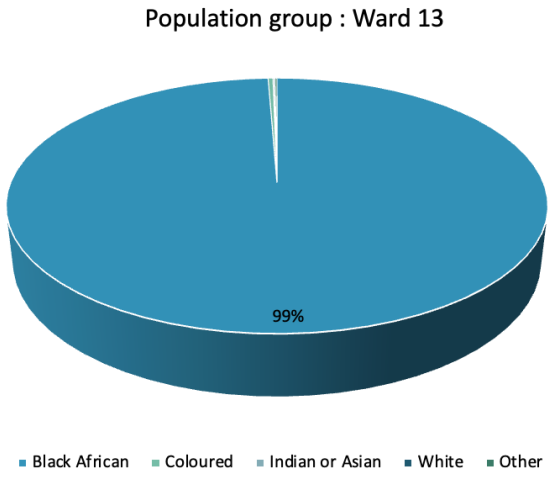


Figure 2: Ward 13 Population by race (Census, 2011))

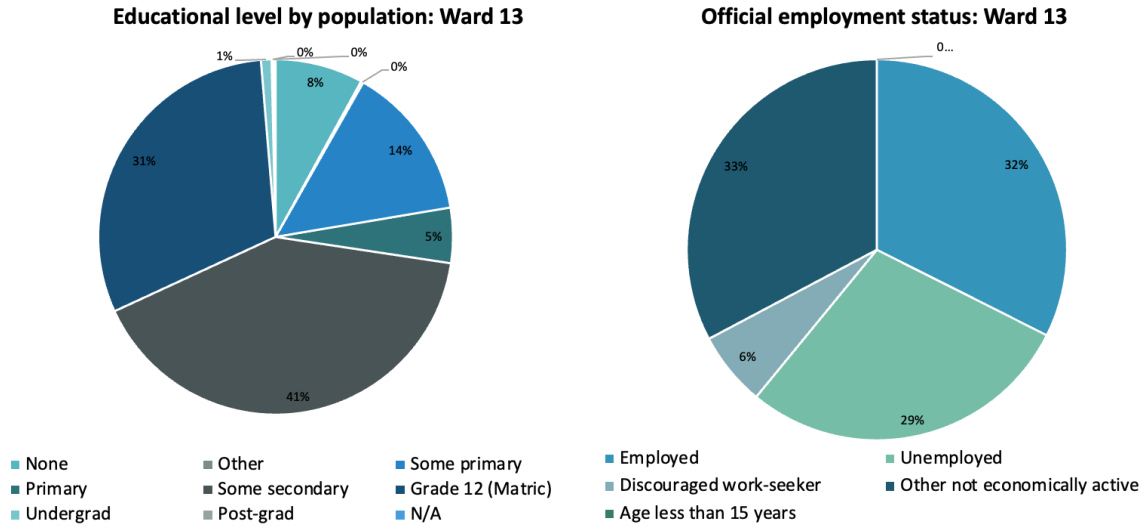


Figure 3: Ward 13 Population by Education and Employment (Census, 2011)

Only one per cent of the population was estimated to have acquired tertiary education. The largest number of about 41 per cent of the population was estimated to have secondary school as the highest level of education obtained. This indicated that Ward 13 population were marginalised in terms of education and the type of employment attainable given the low rate of tertiary education within. Given the marginalised state of the Marikana-Soutpan settlement

itself, it can be assumed that the low levels of education attainment and employment persist in the Marikana-Soutpan community and Ward 13 to date.

The City of Tshwane has indicated that the lack of municipal services is a major challenge within the study area, characterised by inadequate and unauthorised municipal service infrastructure. The issue of sanitation has persisted since 2011. Figure 4 below indicates that about 84 per cent of people in Ward 13 were using pit toilets for sanitation in 2011 while approximately only 5 per cent of households have access to a flushing toilet. The establishment of an informal settlement in the area means that the percentage of people with no proper sanitation has increased. This ratio of households without sanitation indicates the level of deprivation that exists within peripheral settlements of the CTMM. Additionally, according to the 2011 Census, approximately 18 per cent of households do not have access to piped water, a ratio that has likely risen given the size of the Marikana-Soutpan community.

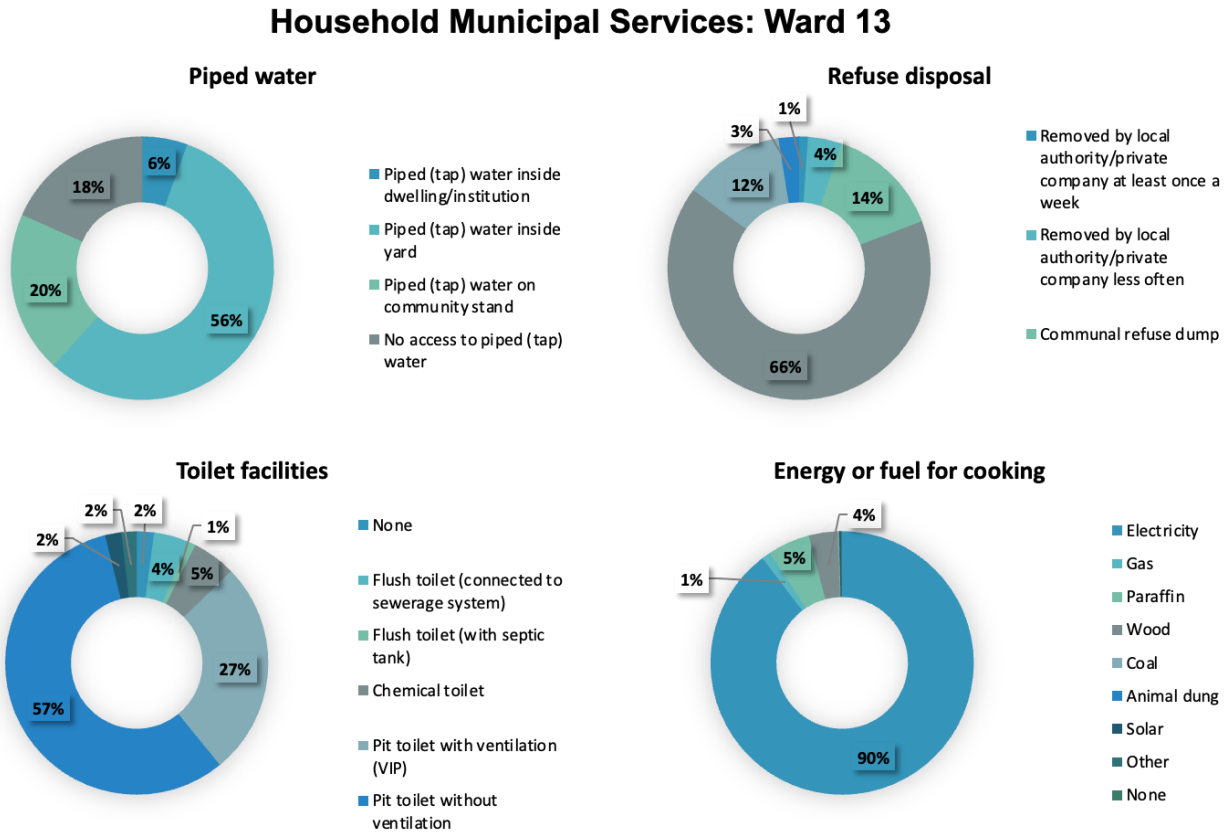
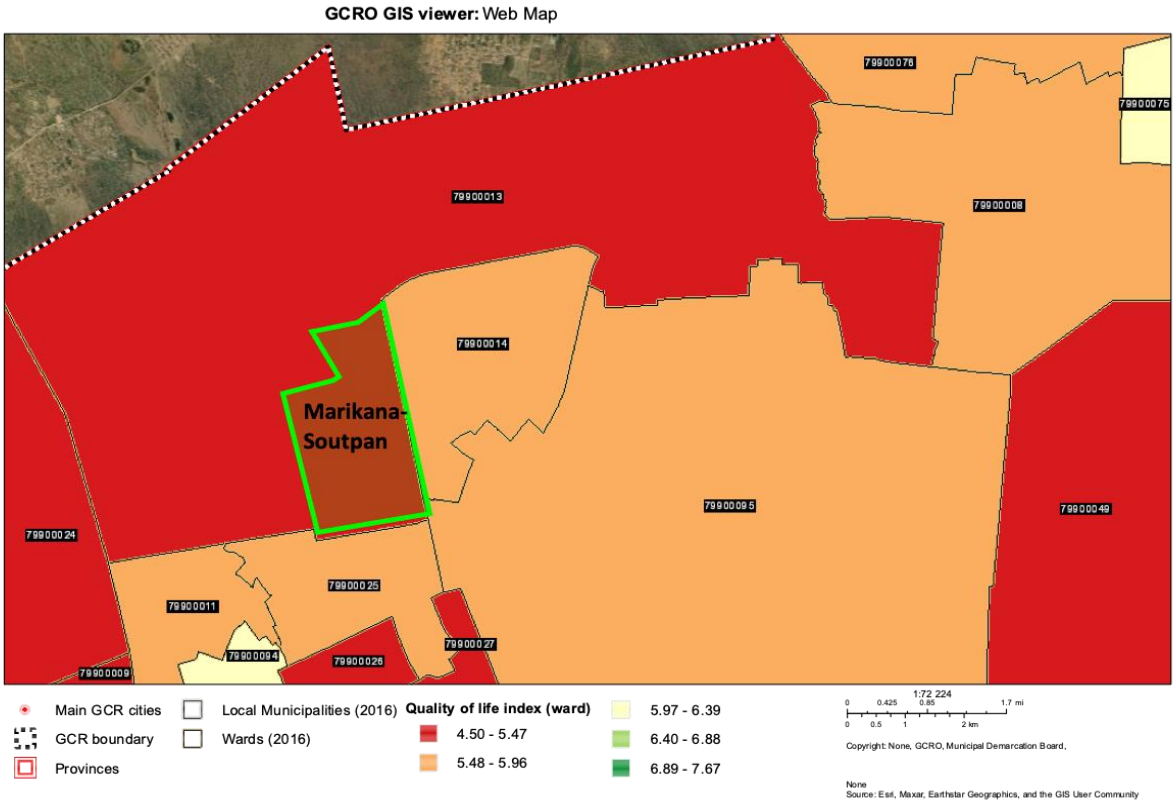


Figure 4: Ward 13 Municipal Service Access (Census, 2011)

4.2.2. GCRO Quality of Life (QoL) Survey: Ward 13

The GCRO QoL survey IV (2015/16) is the latest ward-level socio-economic data recorded in South Africa. This section outlines the information from this data source for Ward 13. The survey is developed to measure the socio-economic conditions of different areas toward

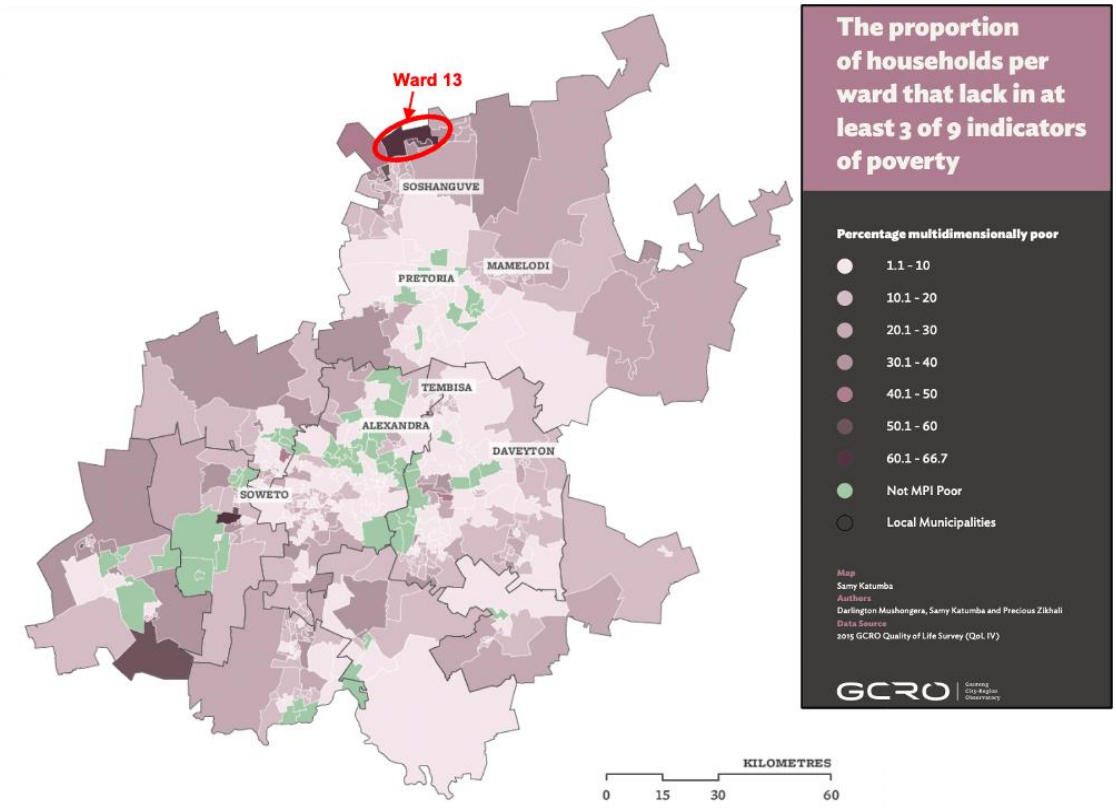
service delivery for policy purposes and implementation. The QoL index draws from multiple indicators that are categorised into ten dimensions: Global life satisfaction, Family, Community, Health, Dwelling, Infrastructure, Connectivity, Work, Security and Socio-political. Map 5 indicates that Ward 13 falls within the 4.50 – 5.47 QoL score which indicates that people within the ward are more prone to express dissatisfaction with local government. Moreover, the QoL survey indicated that Ward 13 satisfaction with the local government percentage was between 18.9 and 30.1 per cent. All things considered; Ward 13 was recorded as one of the areas with lower QoL in Gauteng. The GCRO QoL 2015/16 data supported the overall analysis of the Marikana-Soutpan settlement, indicating that the settlement and Ward 13, in general, is characterised by deprivation and inadequate service delivery.



Map 5: Ward 13 QoL Index (Source: GCRO GIS viewer)

The Gauteng City-Region Observatory (GCRO) identified Ward 13 as one of the most marginalised areas within the City of Tshwane through the "Multidimensional poverty in the GCRO (2015/16 data)" analysis which was derived through the GCRO QoL Survey using selected indicators as stipulated below. A multidimensional approach acknowledges that poverty can be measured across a variety of indicators (Zikhali, Mushongera, & Katumba, 2018). Hence, with this approach poverty is measured in terms of the following carefully selected socio-economic indicators:

- **Housing** – The household does not have a formal house (they live in a shack, overcrowded dwelling, backyard dwelling, etc.).
- **Water and Sanitation** – No access to piped water and flushing toilet in the household
- **Energy –** inadequate access to electricity for lighting.
- **Communication/assets** – Level of access to television, radio or/and phone (one out of three access of the listed items).
- **Food** – Food insecurity due to a lack of enough food in the household.
- **Unemployment** – All the household members are unemployed.
- **Education** – Adults in the household have less than five years of education (Zikhali, et al., 2018).



Map 6: GCRO "Multidimensional poverty" (GCRO, 2016)

Map 6 above indicates that Ward 13 consists of a severe lack of access as per the above discussed indicators. Additionally, the ward is characterised by deprivations such as a lack of municipal services, and higher unemployment than other areas within the City of Tshwane.

4.3. Spatial Context

The Marikana-Soutpan settlement was established in 2012 on what was then a greenfield (*see Figure 5: 2011 and 2012 Marikana-Soutpan aerial images below*). The need for housing and tenure security led to the change in the aerial view of the study areas from greenfield in 2011

to full coverage of the entire 415 hectares by an informal settlement in 2012. At the beginning of the establishment of the settlement, the dwellers each bought a portion of the land for 250 rands from a person who identified himself as a tribal leader under false pretences. The land was never registered as tribal land; the Marikana-Soutpan settlement is located on Portion 1 of the farm Tswaing 149-JR. The title deed was registered under Gauteng Provincial Government in 2018, which changed in September 2022 to the CTMM (CTMM, 2022). Someone who claimed authority over the land in Marikana-Soutpan promised buyers that the area was in line for housing development. Thus, the current dwellers bought out their plots with the understanding that they would become beneficiaries for the upcoming development. However, to date no development has materialised.

To understand the current spatial context of the Marikana-Soutpan settlement, this section will focus on the (1) zoning and land use of the settlement, and (2) socio-economic context of the settlement.

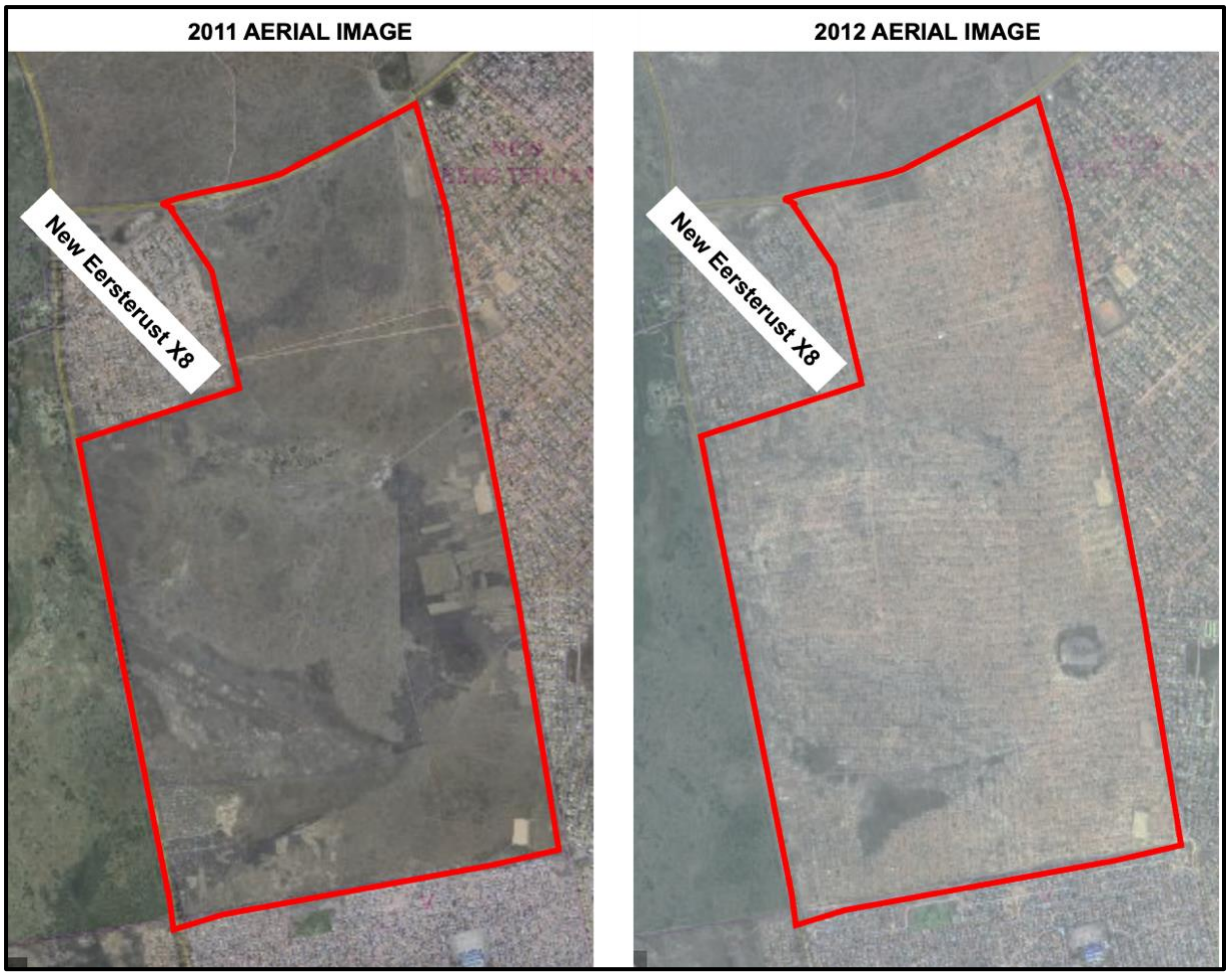
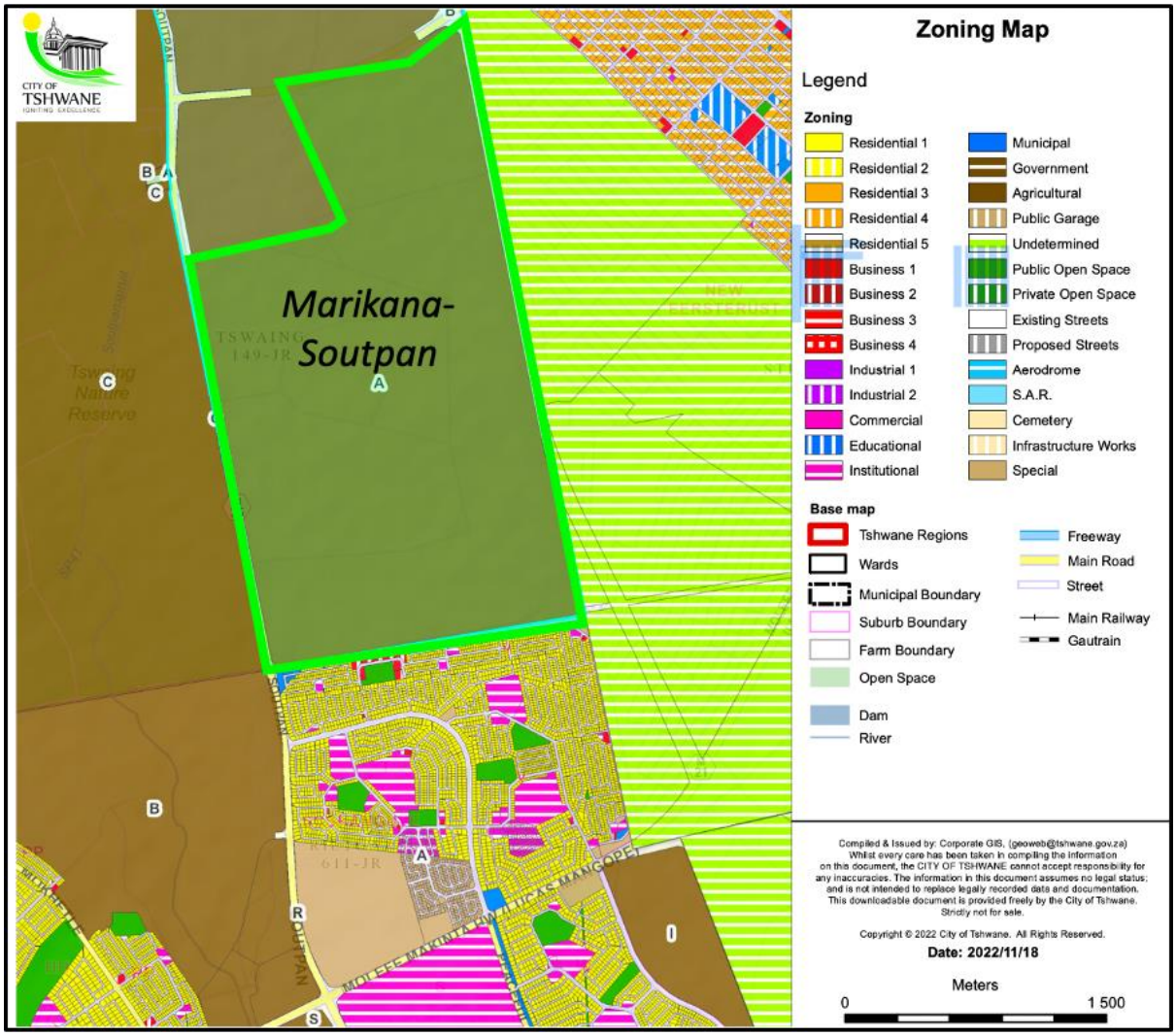


Figure 5: 2011 and 2012 Marikana-Soutpan aerial image (CTMM 2022)

4.3.1. Zoning and Land use

According to the CTMM zoning plan, the study area is currently zoned agricultural which is subject to change through land development application processes in line with the RSDF and development needs. The current land use for the study area can be described as residential, the Marikana-Soutpan Informal settlement is characterised by single-dwelling stands. The surrounding land use is also mostly residential development. Conversely, the settlement on the eastern border of the study area is still zoned "undetermined" even though it is classified as a formal township (New Eersterust) (CTMM, 2022). This indicated that the proper proclamation of the township as per the provisions of SPLUMA is still to be completed. According to the zoning, permissible development in the area is mostly residential development excluding major business development; only a small pocket of business zoning can be identified in the area.



Map 7: Zoning Plan (CTMM 2022)

4.3.2. Socio-economic Context

This study considers that socio-economic opportunities are based on locality, that where one lives determines their access to socio-economic opportunities and thus, their livelihood (Venter et al, 2007). From the literature review chapter, spatial inequality is one of the major development challenges that policymakers have tried to remedy in South Africa. Peripheral settlements such as the Marikana-Soutpan informal settlement have been indicated to be disadvantaged because of their location, far from major economic centres and major social facilities. Therefore, this section details current socio-economic opportunities within the vicinity of the Marikana-Soutpan community.

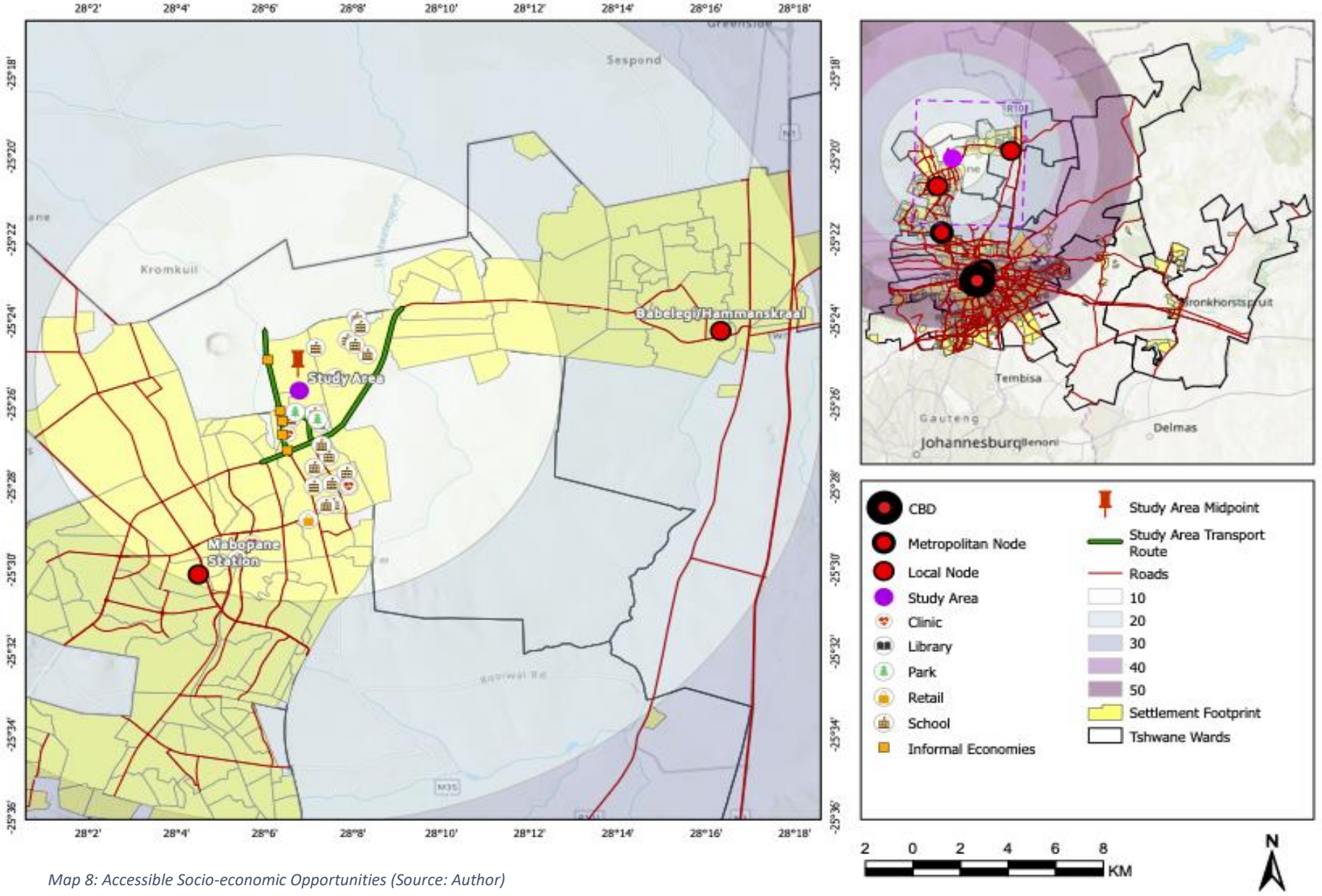
Map 8 below indicates all the identified socio-economic opportunities within 5km to 10km of the study area. As indicated on Map 8, formal economic/employment centres (local node, Metropolitan nodes, and the CBD) are located 10 km to 40 km away from the study area. However, there are some emerging informal businesses in the form of street vendors along the Soutpan road. The map indicates educational, health and retail/business amenities that the Marikana-Soutpan community can access. The study area has access to a clinic within a 2km walking distance radius. Depending on where one is located within the 414 hectares of the study area, there are some primary schools accessible within a 1-2 km walking distance. According to CSIR in their Redbook, the maximum appropriate walking distance for primary schools is 1.5km and 20 min travel time. However, the study area does not have access to a high school, a community centre/library and retail facilities within walking distance. The CSIR Rebook indicates that the minimum acceptable walking distance to public facilities is 2.25km. Thus, the Marikana-Soutpan dwellers are required to use public transport to access any other public facility and retail facilities excluding a primary school and a clinic. This indicates that the marginalised communities in the periphery are compelled by travel times and costs associated with gaining access to socio-economic opportunities.

4.3.2.1. Public Transport

The Marikana-Soutpan settlement does not have direct access to public transport. There are no public transport routes within the settlement (see map 8 below). As indicated on Map 11 in Chapter 5, public transport can be accessed at the main route (Soutpan Road) and through other neighbouring formal settlements (Soshanguve Block T and Block V). Therefore, the dwellers of the Marikana-Soutpan settlement can walk over 1km to access public transport depending on where they are located within the settlements. The public transport that exists within the Marikana-Soutpan area are buses and taxis. The buses transport commuters from the Townships area including the Marikana-Soutpan area to various suburbs in Pretoria

(outside the townships areas: Pretoria East, North, West and South). The bus companies that operate around the Marikana-Soutpan vicinity are the Putco bus (which operates around the Soshanguve side) and the North-West Star bus (which operates around the New-Eersterust and Hammanskraal side). The taxis have two operations; (1) the local transport, where people are travelling to local destinations and (2) the CBD transport, where people travel to the CBD as the final destination or to catch another transport for their final destination. The bus system is more functional on weekdays during peak hours and the taxi system is functional on a daily basis. (Putco, 2023; Safari Bay, 2023; Putco personnel 2023, personnel communication, 02 August; North West personnel 2023, personal communication, 02 August;)

The next section of this chapter focuses on reviewing the policy and legislation framework in place for areas such as the Marikana-Soutpan informal settlement. This is done to understand the rationale behind the continued expansion of marginalised peripheral human settlements and to understand the objectives of policy and legislation for areas such as the Marikana-Soutpan Informal settlement.



Map 8: Accessible Socio-economic Opportunities (Source: Author)

4.4. Planning Policy Review

As already presented, informal settlements are one of the major developmental challenges in South Africa. Since the end of Apartheid, the government has developed policy and legislation measures to govern and address spatial inequality and informal settlements. This section outlines and discusses the Mega Projects, the Tswaing Mega Project specifically, as the initial spatial plan that was to be implemented in the Tswaing/Marikana-Soutpan area. Additionally, policies and legislation that are currently governing spatial planning and the provision of adequate human settlements in South Africa are discussed concerning the study area.

4.4.1. The Tswaing Mega Project

On the 7th of April 2015, the Gauteng Department of Human Settlement launched Mega Housing Projects which included the Tswaing Mega Project within the location of the Marikana Soutpan Informal settlement. It is important to note that by the time the project was publicly announced and launched the land on which the Tswaing Mega Project was to be implemented had already been occupied and called the Marikana-Soutpan settlement (GDHS and GPF 2018). According to Rafapa (2021) from the Ground Up newsletter, the dwellers of Marikana-Soutpan were told that their settlements would be developed as a Mega Project regardless of the occupation status of the land, hence the existence of this settlement was acknowledged (Rafapa, 2021).

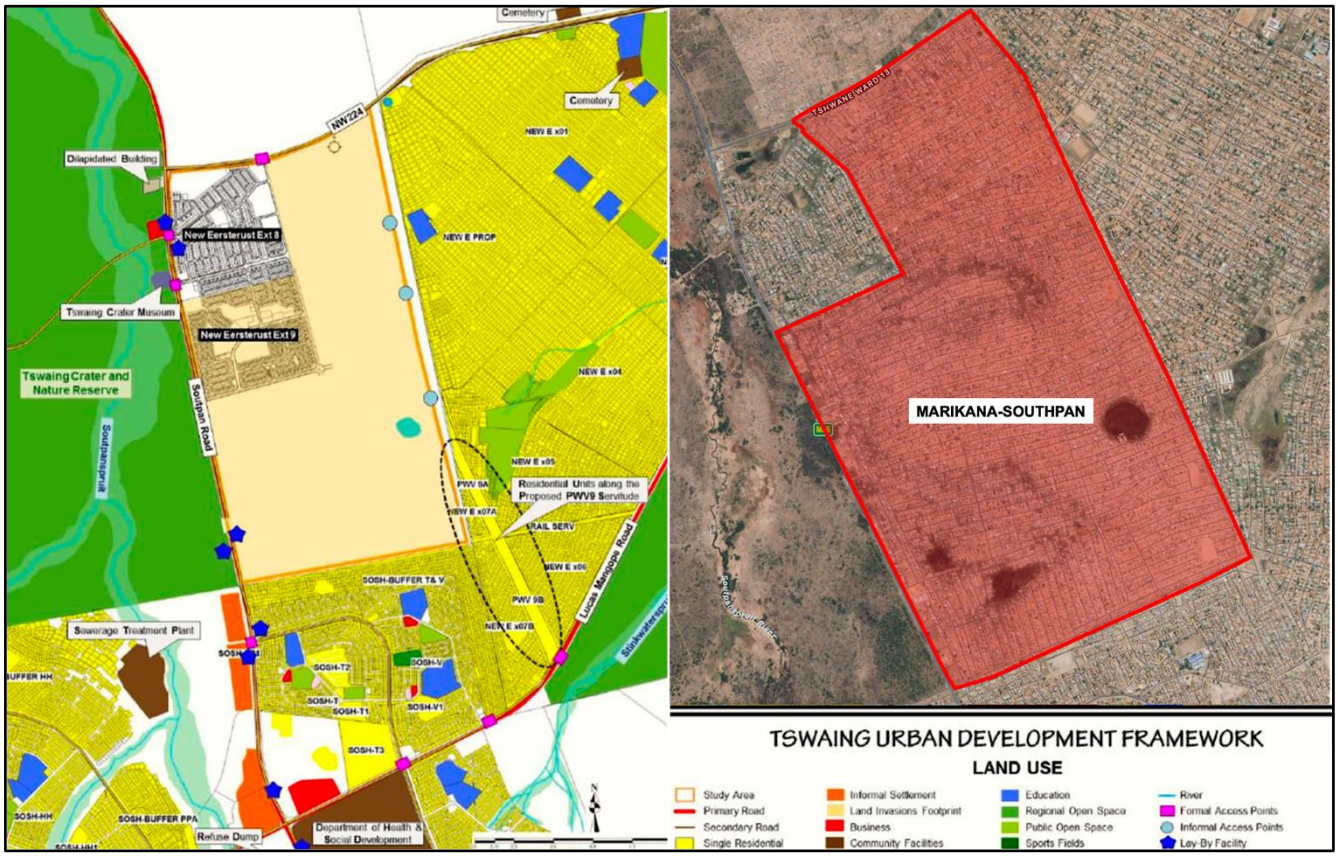
As mentioned earlier in Chapter 1, The GPF identified Nineteen Mega Projects, including the Tswaing Mega Project, located in the northern periphery of the CTMM. Additionally, they describe Mega Projects as "*Mega Human settlements representing a decisive departure from uncoordinated, small scale, low impact, and sporadic as well as unsustainable housing developments. The goal must be to achieve diversity in human settlements by emphasising mixed-income, high-density human settlements that emphasise social and economic inclusion, as well as promoting spatial justice*" (GPF, 2022). Mega Projects are social and economic infrastructure investment projects that are envisioned to deliver an estimated 800 00 housing developments within Gauteng province through the following corridors:

- "The Central Development Corridor" in the City of Johannesburg Metropolitan Municipality.
- The Eastern Development Corridor" in Ekurhuleni Metropolitan Municipality
- The Western Development Corridor" in West Rand District Municipality.
- The Southern Development Corridor" in Sedibeng District Municipality

- The Northern Development Corridor" in the City of Tshwane Metropolitan Municipality which includes the Tswaing Mega Project and this research's study area, the Marikana-Soutpan community.

The main principles and vision of these Mega Projects include the development of "integrated sustainable human settlements" that are self-sufficient, and that can facilitate the "housing, economic and social need" of communities. The Mega Projects were adopted as a strategy to spatially restructure Gauteng cities and remove the stigma of marginalisation associated with peripheral developments. The aim was to plan and implement hubs with socio-economic opportunities (GDHS and GPF 2018).

Map 9 indicates the study area in an aerial view (right) and the surrounding land use identified by the GDHS (left). (GDHS and GPF, 2018).



Map 9: Marikana-Soutpan Aerial View (GDHS and GPF, 2018)

The Tswaing Mega Project's initial plan (2015) envisioned mixed-use development that could roughly accommodate 12 300 households and approximately 50 000 people by the year 2023. However, by the year 2022, no construction had been initiated. Then, in October 2022, the ward Councillor (political leader) confirmed that the project was cancelled. The justification offered for such cancellation was that the land where the project was to be developed is

occupied, even though the land had been occupied since 2012, three years before the Mega Project was launched. However, according to Rafapa (2022), the GDHS indicated that the project was cancelled because of budget issues (Rafapa, 2022). In fact, Mega Projects were presented as greenfield projects (GDHS and GPF 2018). Therefore, it can be argued that the fact that the land was already occupied posed a challenge to the implementation of the project. However, while the land was occupied (2012), the Tswaing Mega Project was launched (2015). This leads to a crucial question: why *was the project launched from the beginning even though the land was occupied?*

4.4.1.1. The Tswaing Mega Project Plan

Seven New Eersterust townships extensions were planned to be established and formalised to join New Eersterust extension 8. The envisioned zonings/land uses included:

- 10 735 mix typology housing units (full title and sectional title) – which were planned to be developed through different housing policies and programmes including the BNG and the Finance Linked Individual Subsidy Programme (FLISP).
- 27 Business erven planned to be 7 hectares in extent.
- 21 Church erven.
- 19 institutional zoning for community amenities such as clinics, community halls etc.
- 5 Primary schools erven.
- 4 Secondary schools erven (GDHS and GPF 2018)

The envisioned land uses/zonings can in principle advance sustainable human settlement provided that private infrastructure investment is attracted and implemented on the 27 business erven to create jobs and attract more private sector investment. The GDHS and GPF estimated 3606 sustainable internal employment opportunities that could have been created through the Tswaing Mega Project. The estimated employment opportunities were as follows:

- 552 retail employment opportunities.
- 488 employment opportunities in community facilities.
- 305 education employment opportunities.
- 2147 local domestic employment opportunities.
- 114 other employment opportunities (GDHS and GPF 2018).

Figure 6 below indicated the graphical depiction of the Tswaing Mega project housing typology. Currently, the entire 415 hectares of the study area is covered with informal settlement structures, including brick houses for households who can afford them. The Marikana-Soutpan area, as is typical of informal settlements, has improper municipal service

infrastructure. Figure 7 below indicates pictures of the current state of housing and services for the majority of the Marikana-Soutpan community.



Figure 6: Tswaing Mega Project Graphical Model (GDHS and GPF 2018)

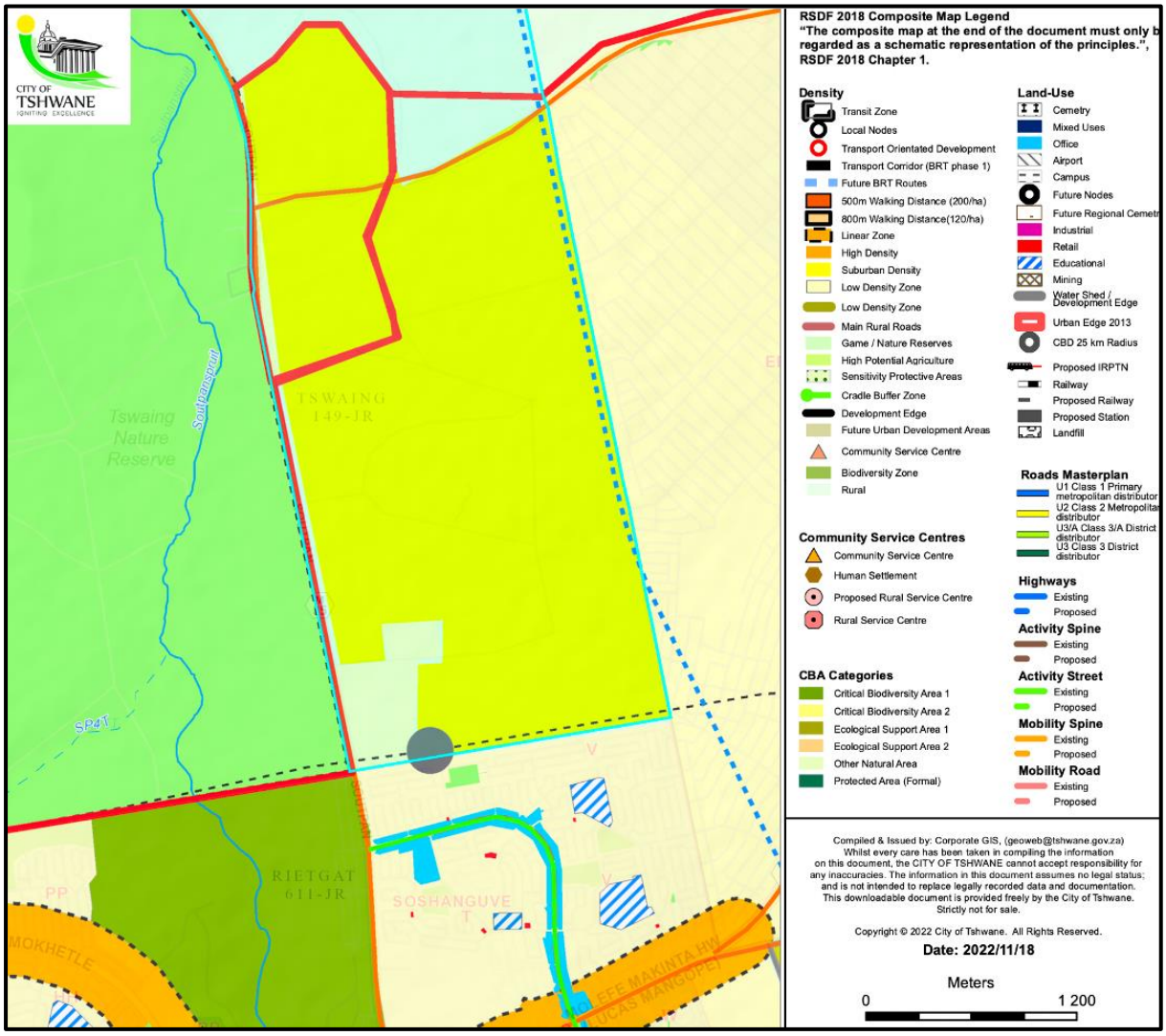


Figure 7: Marikana-Soutpan Current Housing Typology (Source: Author)

4.4.2. The Municipal Spatial Development Framework (MSDF) and Regional Spatial Development Framework (RSDF)

The Municipal Spatial Development Frameworks are enforced and regulated by SPLUMA. They outline and specify the spatial vision of a municipality in line with provincial and national

SDF. According to CTMM MSDF 2021 and RSDF 2018, the study area is earmarked for suburban development. This means that low-density residential developments are envisioned within the vicinity of the study area (see Map 7 below). The Tswaing Mega Project was in line with the CTMM MSDF and RSDF (CTMM, 2022; CTMM, 2018).



Map 10: RSDF 2018 (CTMM 2018)

4.4.3. The Constitution of the Republic of South Africa, 1996

The Constitution is the highest-order legislation governing several aspects of development, intergovernmental relations, the people, etc. Informal settlements and more specifically, the Marikana-Soutpan community are covered under Section 26 which authorises the government to ensure that everyone gets access to adequate housing.

Chapter 2: The Bill of Rights, Section 26 (Housing) states that:

1. "*Everyone has the right to have access to adequate housing.*
2. *The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right.*
3. *No one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances. No legislation may permit arbitrary evictions*."

This means that upon occupation of the study area by the Marikana-Soutpan community, the state cannot move the dwellers from their homes. Moreover, the state has the mandate to provide adequate housing to these dwellers. The Constitution also mandates the state to develop and implement reasonable legislative and policy measures to fulfil the objectives of Section 26. Therefore, several policies and legislation were adopted to achieve the objective of adequate housing for all. This indicates that the Marikana-Soutpan community are within their Constitutional right by expecting formalisation and adequate municipal services (RSA, 1996).

4.4.4. The National Development Plan Vision 2030

This National policy document's main objective is to improve the state of inequality by 2030, it emphasises the need to restructure the spatial pattern of South Africa. The NDP 2030 highlights the importance of the proximity of people to socio-economic opportunities including adequate human settlement with services. The policy document also emphasises the challenges of peripheral settlements located in the outskirt of urban areas like the Marikana-Soutpan Informal settlement, Chapter 8 of the NDP indicates that by 2030 there should not be settlements that are isolated from employment centres, no poverty traps in peripheral settlements and no ridiculous expenditure on daily commuting. This policy highlights and acknowledges challenges peripheral dwellers face concerning the lack of access to adequate housing with necessary municipal services and adequate public transport. However, the policy does not provide specific guidelines or/and framework necessary to achieve these objectives (RSA, 2012).

4.4.5. Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)

SPLUMA is the first nationwide uniform land use management legislation since the end of Apartheid that recognised local government as the implementing authority. Previous land use management legislation did not cover the regulation of the previously black human settlements. Additionally, there was confusion on which sphere of government has

implementing authorities. The Spatial justice principle in Section 7 (a) indicates that the following principles should be exhibited in spatial planning and land development:

- Spatial inequality inherited from the previous governments must be redressed by improving access to land.
- All previously excluded people and settlements, informal settlements included must be included in spatial development frameworks of all spheres of government.
- Underprivileged settlements, informal settlements and previously black areas should be included in the land use management system of the municipalities flexibly specifically for these disadvantaged settlements.
- Provisions must be made for land tenure security and the upgrading of informal settlements.

The mandate to upgrade informal settlements is allocated to municipalities and housing provision is connected to land use management and spatial transformation. This legislation is also in line with the Constitution and the NPD (SPLUMA, 2013).

4.4.6. Housing Act 107 of 1997

This act makes provision for the planning and implementation of liveable human settlements. Additionally, it outlines the principles and roles of all spheres of government in the procedure of human settlement development. This act also safeguards that people have access to formal housing with necessary municipal services and intends for the local government to be the main role player in housing development processes (Housing Act of 1997).

4.4.7. Breaking New Ground 2004 (BNG)

This policy was developed to address the shortfalls and gaps of the RDP policy which implemented housing development in the periphery far from socio-economic opportunities. BNG envisioned sustainable human settlements where people live, work and undertake leisure. It supports the Upgrading of Informal Settlements Programme (UISP) to liveable human settlement additionally it facilitated the provision of low-cost housing in business districts. The objective of this policy was to create liveable, compact, mixed-use human settlements that promote the use of public transport and pedestrian movement (Department of Human Settlement, 2004).

4.4.8. Upgrading Informal Settlements Programme (UISP)

The UISP was developed under the Breaking New Ground policy in 2004. This programme aims to upgrade informal settlement by not disrupting the lives of informal settlement dwellers and promote public participation in the planning and implementation processes. Public participation is the major component of this programme. Community members are acknowledged as the major role players because they are directly affected, and they have deep knowledge about their settlement. The knowledge and needs of the community members are the key drivers of decision-making in UISP Programmes, according to the policy. In a UISP Project, a ward committee is set up and must actively participate in the upgrading processes (Department of Human Settlement, 2005). Upon the official cancellation of the Tswaing Mega Project in October 2022, it was confirmed that a UISP was to be initiated and implemented in February 2023. This was confirmed by the ward Councillor and Rafapa (2022) from the Ground Up Newsletter.

4.5. Conclusion.

In conclusion, this chapter indicated that the Marikana-Soutpan community is located in an area that is spatially fragmented and lacks acceptable access to socio-economic opportunities. The lack of direct access to public transport exacerbates the spatial fragmentation of the Marikana-Soutpan community. Moreover, as reviewed in Section 26, adequate access to basic services is a Constitutional right for the dwellers of the Marikana-Soutpan Settlement and hence they should be afforded adequate such. The socio-economic analysis of the Marikana-Soutpan area indicated that there are informal economies emerging along some part of the main road (Soutpan road) such as street vendors. These identified local economies can be an indication of how some dwellers make a living and of a need for nearby economies. However, the dwellers depend on the local, metropolitan and/or the CBD for most of their economic needs which are located over 10 km away and require access to transportation because the nearby economies are limited and insufficient. The discussed current housing policies and legislation emphasise the importance of integrated human settlements close to economic activities. However, the peripheral locality and lack of economic activities of the Tswaing area contradict these policies. Even though the Mega Projects' plans indicated the development of internal economic activities, success of such cannot be guaranteed. The GDHS Mega Projects strategy has never been tested before. The cancellation of the Tswaing Mega Project seven years after the launch implies institutional incapability within the Mega Projects' framework. This cancellation could have been avoided before the Mega Projects were launched in 2015 by proper analysis and feasibility planning.

Proper feasibility planning for the Tswaing Mega Project could have avoided delays and fast-tracked the government intervention for the Marikana-Soutpan Community. Presently, the dwellers of the Marikana-Soutpan are back at where they started; for possibly longer waiting periods for another intervention.

The next chapter outlines and discusses research findings based on data collected from the passive participant observation and qualitative interviews.

5. CHAPTER 5: THE EFFECT OF SPATIAL PLANNING IN DELIVERING ACCESS TO SOCIO-ECONOMIC OPPORTUNITIES FOR THE MARIKANA-SOUTPAN COMMUNITY

5.1. Introduction

findings from the participant observation and the second section focuses on outlining and describing the findings from the qualitative interviews. Accordingly, the next chapter will outline the analysis and interpretation of the findings to assign meaning and value. The main objective of this research is to "investigate how spatial planning and infrastructure investment can be used to promote access to socio-economic opportunities for marginalised people in spatially fragmented urban areas by looking at the case of the Tswaing Mega Project in the Marikana-Soutpan community." And the main research question is how can the proposed Tswaing Mega Project help redress spatial inequality and afford adequate access to socio-economic opportunities for Marikana-Soutpan dwellers? Therefore, the objective of this chapter is to align the research findings with the overall research objectives and research questions.

5.2. The Built Environment and Everyday Life of the Marikana-Soutpan Community

As indicated in the previous chapter, the Marikana-Soutpan informal settlement was developed in 2012 on a greenfield. The findings indicated that the dwellers occupied the Tswaing greenfield in hopes that a government project would be implemented in the area. After cancelling the plans for the Tswaing Mega Project, today Marikana-Soutpan is a typical informal settlement awaiting government housing intervention in line with the provision of Section 26 of the Constitution.

The objective of the observation was to understand how the Marikana-Soutpan community fulfils their daily needs and wants with the level/kind of socio-economic opportunities they can access. The Marikana-Soutpan, as it is typical of other informal settlements, lacks basic municipal services including waste management. However, unlike many typical informal settlements the individual plots are large, about 250-350m^2 allowing the dwellers the ability to have big open spaces in their yards. A few of the households managed to build brick houses.

Only a portion of the study area was observed (see Figure 8 below) as indicated in Chapter 3. This is described here as the "focused study area."

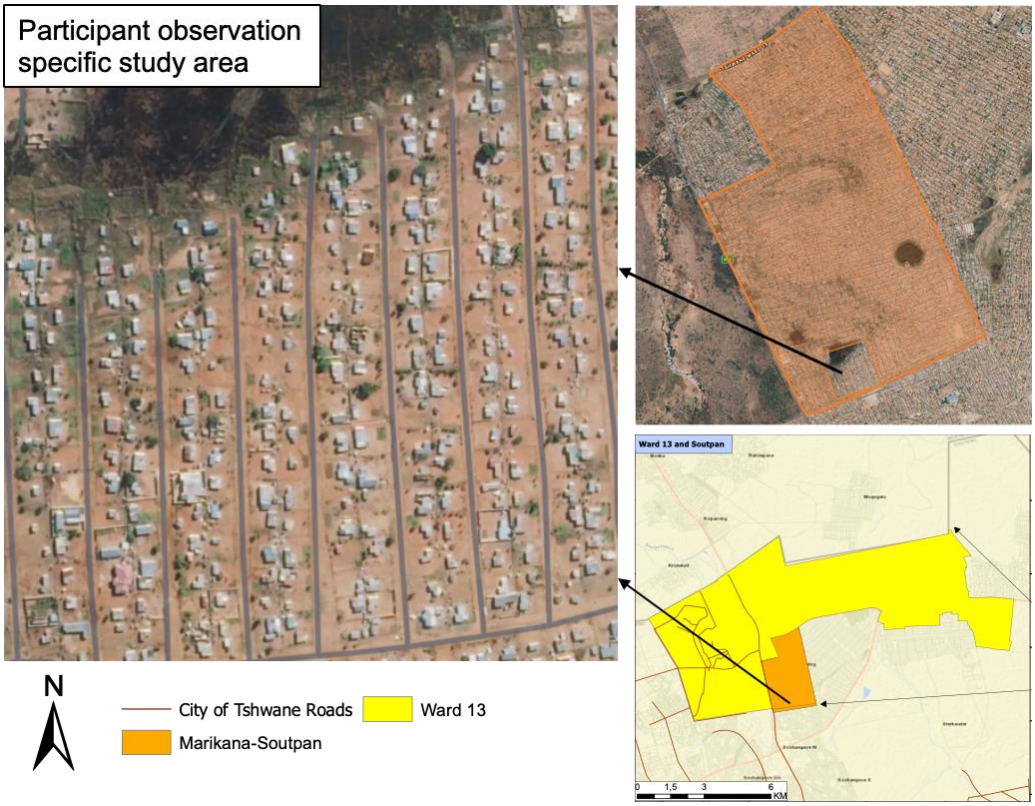


Figure 8: Participant Observation of the focus study area (Source: Author)

The participant observation indicated that during the early hours of the morning almost all the households had one or more adults at home. This indicated that they did not have a regular employment place they needed to go to. Additionally, toddlers who were not of age to start primary school were spotted during this time. On a normal weekday in the Marikana-Soutpan area, toddlers can be seen playing in the yard with adult dwellers sitting or doing house chores. The major basic municipal services and socio-economic aspects of the observation that stood out are the unauthorised connections of electricity and water, the random location of several dumping sites and the mobility pattern of dwellers to access public transport. Therefore, the observations are grouped into three areas of interest concerning the research questions and objectives: (1) unauthorised connections to services, (2) wetlands degradation and waste management; and (3) public transport accessibility.

5.2.1. Unauthorised Connections to Services

The observed section of the Marikana-Soutpan informal settlement consisted of unauthorised electricity, water, and sanitation connections from neighbouring formal townships (Soshanguve Block V and Block T). The electrical connections consist of actual metal wires connected through unstable poles of about 2m height which an average-height person would be able to touch (see Figure 9 below). The unauthorised water connections consisted of about

20cm width of water pipes from the neighbouring formal township. The pipes were barely underground and some above the ground, this connection enabled almost all the households to have access to water inside their yards. Normally, in an informal settlement, the municipality would provide a communal tap for water and alternative sources of energy such as gas and fire would be used for lighting. What was more interesting was the unauthorised sewerage connections, most of the dwellers have resorted to alternative sanitation such as pit toilets and for those who can afford septic tanks. However, several households especially those close to the formal townships managed to connect to the municipal sewerage system.



Figure 9: Unauthorised electricity and water connections (Source: Author)

The most unusual was to see a full brick-built permanent house with borehole water and septic tank sanitation connections amid all the informality and unauthorised connections. The identified house within the study area is a fully functional house permanent housing structure with the only unauthorised connection being for electricity. The Marikana-Soutpan informal settlement consists of a few houses that have been built with bricks but informally (one can tell there was no proper building plan etc.). However, with this house, one could tell that it was carefully planned and built (see Figure 10 below).



Figure 10: Permanent housing structure in Marikana-Soutpan (Source: Author)

5.2.2. Wetland degradation and Waste management

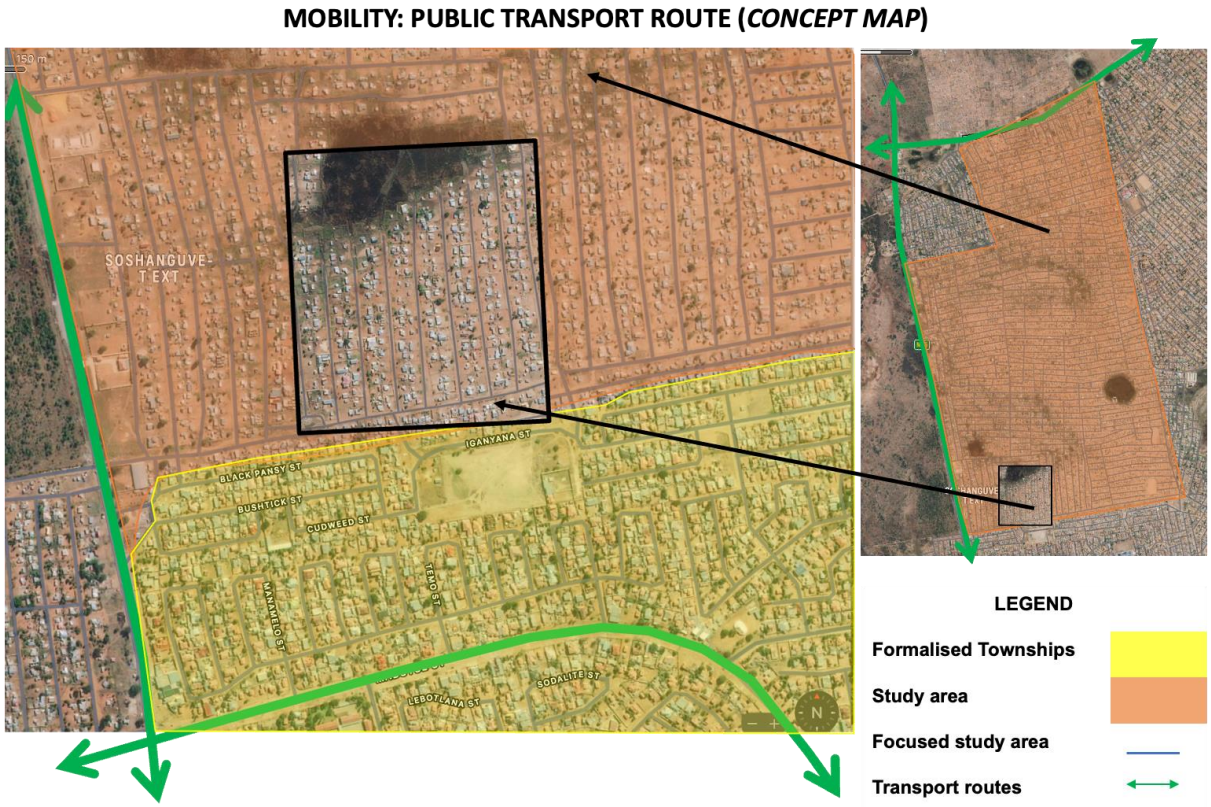
A relatively large area of the Marikana-Soutpan informal settlement is in wetlands. Some of the extreme wetland areas within the study area were left uninhabited; however, they were turned into dumping sites. Waste management was observed to be a challenge for the study area, almost all the uninhabited land of which most are wetlands are turned into dumping areas for the community (see Figure 11 below).



Figure 11: Wetland degradation (Source: Author)

5.2.3. Public transport accessibility

The observation indicated that the dwellers within the focused study area and the dwellers located close to the formal townships, particularly the Soshanguve townships are better off than those located deep inside the Marikana-Soutpan informal settlement. The study area is characterised by gravel roads in which no public transport including taxis enters. To access public transport the dwellers must travel to the transport route as indicated in Map 11 below. Dwellers from the focused study area can walk about 500m to access public transport because of their location. However, those who are located deep within the study area can walk over 1km distance. In the weekday afternoon, school kids can be noticed walking from the transport route (where they are dropped off by the school buses) to their homes within the study area; and for some that would be over a 1km walk. Therefore, to travel anywhere from the Marikana-Soutpan informal settlement via public transport requires the dwellers to walk a considerable distance to access public transport. As indicated in Chapter 4, the modes of public transport accessible for the Marikana-Soutpan community are the South African traditional bus systems and taxis.



Map 11: Illustration map for public transport accessibility (Source: Author)

5.3. The Marikana-Soutpan dwellers' perception regarding the development of their area vs the government's approach

This section outlines and narrates data collected from the qualitative interviews (*semi-structured and structured interviews*). The objective was to analyse, outline and discuss the collected data objectively without being biased or giving meaning to the data. As indicated in Chapter 3, a total of 12 community members were interviewed from the Marikana-Soutpan community; of which 9 were female participants and 3 were male participants (*please refer to Chapter 3*). Additionally, interviews were conducted with the CTMM official and the ward Councillor of the area.

The essence of the interviews was to determine how urban and spatial planning can be planned and implemented to improve the state of the Marikana-Soutpan informal settlement in terms of socio-economic opportunities. Therefore, topic-related themes were identified, analysed and narrated in four categorisations: (1) Everyday challenges for the dwellers, (2) The expectations of the dwellers, (3) The delayed implementation of the Tswaing Mega Project and (4) Broader observed themes.

5.3.1. Everyday challenges for the dwellers

The interview questions were structured to reflect the challenges that dwellers face in their everyday lives. All the participants indicated that they moved to the Marikana-Soutpan area with the information that the area will be formalised and henceforth they do not understand why the government has not implemented any plan to date (10 years later). The main themes related to their everyday challenges are as follows:

5.3.1.1. Safety issues due to lack of Basic Municipal Services

The lack of basic municipal service emerged as one of the major concerns for the participants. More specifically, the unauthorised connections to electricity meant danger for kids and the community. Three of the participants mentioned that kids have passed away due to accidents with electric cables. Additionally, the participants indicated that the electricity that they have is not reliable because they get regular outages. One participant mentioned that the unauthorised electrical connection almost burned her shack. The other safety issue related to services that emerged was the level of crime at night or in the early hours of the morning. One participant said, "at night it gets so dark that people are unable to see, hence thieves use that opportunity to break into our shacks and steal our belongings." The participants also mentioned the struggle of walking to the public transport route in the early morning times due to lack of lighting. The last challenge that emerged was the magnitude of flooding during rainy

seasons. Because some of the households are in wetlands, some of the participants mentioned that during the rainy season they are unable to inhabit their shacks. Additionally, mosquitos are a huge problem in the area due to the wetness of the land.

5.3.1.2. Lack of transparency from the government

Almost all the participants did not know about the Tswaing Mega Project, and those who heard about it did not have clear information on what it entails. The participants indicated their frustration with not having information about what the government has planned for their area. They all indicated that they moved to the Marikana-Soutpan area because they were told it was in line for formalisation. Some indicated that there was a meeting with community leaders (whom they cannot identify today), and they were told to pay a fee to be allocated a yard.

5.3.2. The expectations of the dwellers

Most of the participants indicated impatience with waiting for the government. One participant stated that “it is not fair what our government is doing to us, 10 years without any basic municipal service while some of us have managed to build brick houses instead of waiting for government implementation, we still need the municipal services”. When asked about what they would like to see changed, most of the participants stressed formalisation. One participant even said, “we just want to be formalised like the other neighbouring townships.” Therefore, the main themes related to the Marikana-Soutpan dwellers' expectations that stood out are as follows:

5.3.2.1. Land tenure security and formalisation

All the participants indicated that they were promised that their settlement was in line for formalisation and the provision of basic municipal services. This promise was made by community leaders who, presently, are no longer identified. Hence, the number one expectation of residents is getting the settlement formalised and upgraded. Because most of the participants did not know about the Tswaing Mega Project, when they were presented with the project's graphical concept which included sectional title development they were not pleased. They indicated that their interest is in full title serviced stands. The interviews indicated that most of the dwellers are looking for the government’s minimum intervention of formalisation and the provision of service and only a few mentioned the provision of state-provided housing. Therefore, the priority intervention is the provision of basic municipal services through township formalisation.

5.3.2.2. Proximity and accessibility

The participants indicated access and proximity to schools, employment centres, economic/retail centres and health facilities as their second expectation from government's interventions. They stressed the difficulty of the travel distance to access public transport and socio-economic opportunities such as schools, retail facilities, etc. Most of them used statements such as "it would be nice and convenient to have a high school and/or a retail facility close by," indicating that these socio-economic opportunities would be a bonus to their settlement. However, when the participants were talking about the formalisation of their settlements, they used words like "we want", "we need" and "we were promised" indicating a higher level of importance and urgency, and greater expectation towards formalisation than the provision of social equipment. Overall, the interviews revealed that the participants envision their settlements with schools, retail facilities, employment opportunities within walking distance and a properly tared road to allow the movement of public transport.

5.3.3. The delayed implementation of the Tswaing Mega Project

The delay in public service provision and formalization was highlighted as one of the concerns for the Marikana-Soutpan community. Even though most of the community participants did not know about the Tswaing Mega Project, many knew that the upgrading of their settlement was in the hands of the provincial government. The documentation review indicated that the Tswaing Mega Project was initially planned to conclude in 2023. As already described, the project was never implemented. This delay meant the continued marginalisation of the Marikana-Soutpan community with the lack of basic municipal services.

At the time of the interview, the CTMM planner was not sure if the project would continue as a restructured Mega Project with a different scope from the initial one or a normal UISP given the occupation of the Tswaing area. This is because the Mega Projects are led by the provincial government and the Municipality is part of the project for intergovernmental cooperation purposes and because they are one of the major role players (they oversee the provision of engineering services, etc.). Three themes concerning the delay/hindrance of the implementation of the Tswaing Mega Project were identified:

5.3.3.1. Land occupation

The community participants indicated that before the occupation of the Tswaing area there was a community meeting with traditional leaders who sold them pieces of land in the study area with promises of formalisation. Both the ward Councillor and the planner indicated that the main hindrance to the Tswaing Mega Project was the occupation of the Tswaing area

which took place before the commencement of the project. The ward Councillor indicated that the occupation was caused by the misalignment of development plans between the government and the tribal authorities. The CTMM Planner indicated that although the Tswaing Mega Project was officially launched in 2015, the area was identified and surveyed as a greenfield in early 2012 for Mega Project implementation and that the occupation took place after that. Upon the occupation, the CTMM planner indicated that the GDHS along with the hired service providers attempted to restructure the project to accommodate the relocation of the Marikana-Soutpan community so the project could be implemented. He additionally indicated that the unavailability of land for relocation and the unwillingness of the community to move led to the complication of the project.

5.3.3.2. Misalignment of the government and the tribal authorities' plans

As indicated above, the community participants indicated that they bought their pieces of land from the traditional authority of the area. These authorities were not available for an interview with the researcher. When asked about possible factors that led to the land occupation, the Ward Councillor alleged that it was strategically encouraged by the traditional leaders to sabotage the Tswaing Mega Project, which was going to bring development including different housing typologies in the areas. The interview with the ward Councillor revealed that different traditional authorities in the Tswaing area are allegedly in the process of claiming land in the area; and that the invasion of the Tswaing area was encouraged to facilitate these land claims. Therefore, this indicates that there is some level of misalignment and/or miscommunication between the government and traditional authorities' development plans which has contributed to the delay/hindrance of the implementation of the Tswaing Mega Project.

5.3.3.3. From Mega Project to Upgrading of Informal Settlement Programme

The findings (*documentation review and interviews with the community*) indicated that since the launch of the Tswaing Mega Project, the community members were never formally informed about the progress or the status of the project. The CTMM planner indicated that the initial plan of the Tswaing Mega Project did not necessitate community participation because it was planned on a greenfield, justifying the lack of transparency by the government regarding the project. During the interview with the ward Councillor, she indicated and confirmed that the Tswaing Mega Project was discontinued and that a UISP was initiated, and that the process would start next year in February (of 2023). The Ward Councillor confirmed that the decision to cancel the Mega Project emanated from the fact that alternative land for relocation could not be secured and also that some dwellers had already built permanent houses and were not willing to demolish. Additionally, she highlighted that proper community participation

will take place during the UISP implementation which will require negotiation between the government and the community including the full participation of the community in the planning and implementation of the UISP.

5.3.4. Broader observed themes

This section discusses broader themes that emerged during the interviews with the 12 participants from the Marikana-Soutpan settlement. These are theme that never came up as challenges and/or expectations but kept recurring during the interviews. In discussing these themes, literature is used to substantiate these observations.

5.3.4.1. Unemployment

Informal settlements, peripheral settlements and poverty are closely related, and these are factors that are triggered by unemployment. Eight out of twelve of the participants indicated that they are unemployed without suggesting that the government should provide employment opportunities for them. This could indicate that most of the Marikana-Soutpan dwellers are discouraged employment seekers given the existing socio-economic issues within the settlements and the employment-seeking challenges such as the cost of looking for work and the spatial mismatch of the Marikana-Soutpan informal settlement being located far from economic centres (Banerjee et al., 2008). Thus, the challenge of unemployment can be referred to the spatial fragmentation of the Marikana-Soutpan informal settlement located at the periphery of CTMM.

The Tswaing Mega Project was presented as an inclusive project which envisioned private investments and internal employment. The discontinuation of the project and the adoption of UISP means that the internal employment creation and private investment will not be the focus, rather, only basic municipal services can be guaranteed. However, the spatial marginalisation of the Marikana-Soutpan community necessitates economic intervention for employment creation purposes to enable the upliftment of dwellers from poverty. Venter et al. (2007) highlighted that accessibility and mobility are essential for peripheral settlements which are measured by proximity to socio-economic opportunities. Hence, to improve the state of spatial fragmentation of the Marikana-Soutpan settlement the UISP must also promote the provision of economic activity and access to adequate public transport. So far, economic investment has not been at the forefront of UISP projects. Therefore, it is possible that upon the implementation of the UISP, the Marikana-Soutpan community will lose an economic aspect that the Tswaing Mega Project envisioned for the area. Nonetheless, it is important to keep in mind how the literature in South Africa has pointed to little economic opportunities

being actually offered by Mega Projects (Ballard, 2017; Harrison and Todes, 2017; Turok, 2015).

5.3.4.2. Fear of the Unknown

The interviews with the community also revealed that the dwellers are uncertain about the future of their settlement and that creates fear amongst the community which explains the protesting that takes place regularly in the area. One of the participants indicated a fear of the Marikana-Soutpan informal settlement becoming a rural community without proper basic municipal services and socio-economic opportunities even though it is located in a Metropolitan Municipality. The failure of the government to be transparent about the development plans and to fast-track the intervention in the area further contributed to the vulnerability of the dwellers. Informal settlements exist because of the realities of inequality and poverty. Huchzermeyer (2006) emphasises that they exist because urban and spatial planning implementations have not been able to produce adequate and affordable housing. In the case of the Marikana-Soutpan community, the dwellers are living in challenging living conditions without communication or any temporary government intervention to improve their livelihood which creates fear and unrest within the community.

5.4. Conclusion

This chapter discussed the findings from the participant observation and the qualitative interviews. Municipal services were revealed as the major area of concern for the dwellers of the Marikana Soutpan community more so because they were “promised” formalisation before they settled in the area. The nature of the location of their settlement being peripheral and far from socio-economic opportunities does not faze the dwellers of the Marikana-Soutpan. They showed more concerns about being formalised like the neighbouring townships and spoke less of the unemployment status of the area. The lack of transparency from the government about the development plan in the area has left the dwellers discouraged and hopeless about the future of their settlement. The occupation of the Tswaing area was painted as the major factor leading to the cancellation of the Tswaing Mega Project, which was alleged to have been facilitated by the Traditional authority in the area. The Marikana-Soutpan community will be embarking on a UISP for the provision of basic municipal services, but the spatial fragmentation of the settlements is still a problem that planning must address. Access and proximity to socio-economic opportunities must be afforded to the Marikana-Soutpan community to elevate the stigma of peripheral settlement and uplift the dwellers from marginalisation as indicated by SPLUMA and other prevailing legislation and policies.

The next chapter focuses on discussing the research findings by interpreting the study in line with the literature and research objectives.

6. CHAPTER 6: CONCLUSION

6.1. Introduction

This chapter outlines and discusses the summary and conclusion of the research by interpreting the study findings in line with the literature and the research objectives. Additionally, in conclusion, recommendations and implications of this research findings are discussed.

6.2. Findings Analysis and Interpretation

The study findings indicated that the Marikana-Soutpan community does not have direct access to socio-economic opportunities, depending on public transport services, which are also inadequate. The study findings also indicated that the Tswaing Mega Project plan experienced delays and was eventually cancelled in October 2022, leading to the adoption of the UISP for the Marikana-Soutpan community. The 10-year wait for government intervention proved to worsen the state of marginalisation for the Marikana-Soutpan community. The transition to UISP means that they are in for another possible long wait until the UISP materialises.

6.2.1. Existing socio-economic opportunities in the Marikana-Soutpan area

The first sub-objective of this research was to identify the current socio-economic opportunities accessible to the Marikana-Soutpan community. This objective aims to measure and understand the socio-economic needs of the Marikana-Soutpan dwellers to align them with spatial and urban planning for the area. The spatial information that was compiled in Chapter 4, along with the primary data collected shows that the Marikana-Soutpan settlement is spatially disadvantaged. It is located far from socio-economic opportunities (employment and retail centres, educational facilities, recreational facilities, healthcare facilities, etc,). As mentioned earlier, eight out of twelve of the community participants who were interviewed for this research are unemployed and the four who are employed are required to access public transport to travel to work. Thus, the lack of adequate access to public transport intensifies the marginalisation of the Marikana-Soutpan dwellers.

The GCRO 2015/16 QoL ward index indicated that the study area has one of the lowest QoL scores indicating that dwellers in the area are dissatisfied with service delivery. This lower score and dissatisfaction stems from the lack of adequate access to socio-economic opportunities supporting the study findings as stipulated above. The findings indicated that to access any socio-economic opportunity, the dwellers require access to public transport; only a primary school and clinic are within a 2km walking radius depending on where one is located within the settlement. The post-Apartheid policy agenda of transformation and spatial

restructuring can be argued to be hard to attain given the outcome and continued development of peripheral settlements such as the Marikana-Soutpan informal settlement. The strategy of providing just basic municipal services in previously marginalised black settlements is not sufficient to uplift the previously marginalised from poverty and deprivation (Todes 2011). A cluster of infrastructure investment to enable adequate access to socio-economic opportunities is important for the development of sustainable settlements. Section 26 of the Constitution compels the government to intervene and afford adequate housing for the Marikana-Soutpan community. Therefore, spatial interventions that promote socio-economic opportunities in marginalised peripheral settlements are required to improve the livelihoods of the marginalised.

6.2.2. Tswaing Mega Project in enabling adequate access to socio-economic opportunities for the Marikana-Soutpan community.

The second objective was to evaluate how the Tswaing Mega Project can enable adequate access to socio-economic opportunities for the Marikana-Soutpan dwellers. The Tswaing Mega Project plan promised to deliver sustainable housing developments, which could enable adequate access to socio-economic opportunities for peripheral settlements. However, literature indicates that Mega Projects often mirror “new towns” developments which experienced several economic challenges and led to disaster developments such as “the Ghost Town” in China (Harrison and Todes, 2017). Thus, successful peripheral developments must present internal economic investment at the forefront for the development of sustainable human settlements. Looking at the Tswaing Mega Project plan, it can be argued that the successful implementation of this project could have benefited the Marikana-Soutpan dwellers. This is because the Project envisioned mixed land use development and the creation of entry level and low skill employment which matches the demographic of the Marikana-Soutpan community. The Tswaing Mega Project also envisioned mixed housing typologies to allow access to adequate housing tenure. Unfortunately, the actual possibilities of success for the Tswaing Mega Project will remain unknown because the project was cancelled.

Therefore, this section presents possible measures that can be implemented to address the needs of the dwellers as identified during the interviews and as reflected in the findings. The interview findings indicated that the major need of the Marikana-Soutpan community is the formalisation of their settlement. More than anything the dweller wants the government to prioritise the provision of basic municipal services in their area. However, as emphasised by Todes (2011) merely providing infrastructure services in a marginalised community will not remedy the social and spatial fragmentation within. The 10-year wait for intervention from the government has left the dwellers desperate for any kind and any minimal intervention.

Presently, the formalisation of the Marikana-Soutpan settlement alone, meaning, without consideration to how the community can have better access to socio economic opportunities, will likely not afford them economic means to uplift themselves from poverty. Moreover, literature indicated that the formalisation of human settlements in urban peripheries without access to socio-economic opportunities has the potential to produce unsustainable settlements and exacerbate spatial inequality (Charlton, 2017; Harrison and Todes, 2017; Sutherland et al., 2015). Accessibility and proximity to socio-economic opportunities can improve the state of spatial fragmentation of marginalised settlements therefore, any spatial and urban planning strategy to be adopted and implemented in marginalised settlements must have a strong socio-economic investment policy scope.

The UISP aims to effectively upgrade informal settlements with little to no interruption to people's livelihood. However, for areas like the Marikana-Soutpan Settlement the improvement of socio-economic opportunities should be prioritised to improve spatial inequality. Therefore, infrastructure investment (public transport, economic infrastructure, etc.,) for socio-economic opportunities improvement should be at the heart of the intervention strategy for the Marikana-Soutpan community.

Moreover, the MSDF could be used to unlock development by earmarking an appropriate area around the Marikana-Soutpan settlement for mixed use development instead of suburban development to attract private investment and enable township economies. This exercise could spark local and township economies in the area which can make the implementation of the UISP more successful in delivering internal economic activities. Relevant stakeholders such as the Gauteng Department of Economic Development and the MSDF custodians (*the Municipality*) should be engaged by the UISP custodians (*Municipal housing department*) to ascertain that the land around the Marikana-Soutpan Community is unlocked for local and economic development.

6.2.3. Factors that might hinder the implementation of the Tswaing Mega Project.

The last objective was to identify factors that might hinder and/or facilitate the implementation of the Tswaing Mega Project. However, given the fact that the project has been discontinued this section discusses the findings in relation to factors that led to the Tswaing Mega Project's “failing to launch” and possible future development of the Marikana-Soutpan community. The findings revealed that the major hindrance to the implementation of the Tswaing Mega Project was rooted within the planning phase where the plans of the government were misaligned with the plans of the traditional authority. Sutherland et al. (2016) indicate that according to legislation the traditional councils are obligated to participate in policy and legislation development processes at the local level, these include the IDP and SDF developments.

Henceforth, the traditional leaders around the Tswaing area should have been part of the Tswaing Mega Project planning processes to prevent the misalignment of plans.

The other hindrance that was highlighted by the findings included the lack of transparency of the Tswaing Mega Project team. The community members were never approached and communicated about the status of the project until the project was officially cancelled. This indicated institutional issues within the regulatory process of Mega Projects. Turok (2016) argues that the idea of Mega Projects is problematic and complex, given the institutional challenges that South Africa is currently experiencing. This means the government, more specifically the GDHS should address the existing institutional issues for the successful execution of Mega Projects. Literature on other mega housing projects indicated that challenges relating to delays and funding are almost inevitable for most Mega Projects hence, institutional stability is important to avoid total failure (Turok, 2016). The recorded delays in Mega Projects are also one of the major hindrances that affect the general public waiting for state intervention. These can be caused by internal processes (Mzolo, 2016; Charlton, 2017). Hence for proper planning and implementation of future Mega Projects, a clear regulatory framework with clearly defined roles for all role players must be established during the planning phase to enable proper implementation. The other hindrance/challenge related to the upgrading of the Marikana-Soutpan community is the ability of the proposed UISP to address the spatial fragmentation of the location of the settlement. Literature and history indicate that South African peripheral developments are yet to enable economic activities for the dwellers, many have to commute daily or resort to informal sources of income for their livelihood (Charlton, 2017; Harrison and Todes, 2017; Turok, 2015).

6.3. Conclusion: Implications and Recommendations

Literature on similar large-scale human settlements like the Tswaing Mega Project indicated that the timeframe for implementation and conclusion always changes because of unanticipated challenges that are met during the period of the project. The continued delay of project implementation and conclusion in housing projects as also witnessed in the Tswaing Mega Project is one of the major factors hindering and prolonging the upliftment of the marginalised people from poverty and deprivation. Therefore, the government should take into consideration and minimise the impact of waiting for the dwellers and avoid experimental/pilot projects where the lives and well-being of people are concerned. Furthermore, Mega Projects should consider opening the scope of public participation as part of their projects plans to avoid misalignment of plans with other stakeholders and uphold the principle of “openness and transparency” for the general public. Charlton (2017) indicated the outcomes of mega

human settlement without internal economic investment, resulting in dwellers altering the built form of the housing project to make room for measures that can afford them access to income creation.

Culwick and Patel (2020) emphasise the significance of housing as a source of work opportunities and benefits for generating income, especially for marginalised communities. Thus, suggests that policymakers and the government must consider enabling housing development for income generation amidst the lack of economic investment in housing projects. Most importantly, the literature indicated that the challenge of mega human settlements' peripheral location should be avoided by securing central locations closer to existing economic activities. Greenfield peripheral locations do not mean smooth implementation (as was the case for the Tswaing Mega Project). There are many costly challenges for the government and general public such as the cost of infrastructure extension associated with peripheral development. Moreover, these developments run the risk of worsening the spatial fragmentation that marginalises areas and people. The government should consider other urban and spatial planning strategies to supplement the UISP for the purpose of economic opportunities given the cancellation of the Tswaing Mega Project. This could be done by unlocking the land around the Marikana-Soutpan settlement for economic development through the MSDF as indicated above. The spatial strategies targeting economic improvement can be implemented parallel to the implementation of the UISP to promote local and township economies and enable adequate access to socio-economic opportunities.

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THE COMMUNITY MEMBERS' INTERVIEW QUESTIONS

1. Why did you choose to settle in the Marikana-Soutpan areas within the Tswaing area?
2. Why did you move to this area? Where did you come from?
3. What activities do you do on a typical day? What about your other household members?
    a. Usually, how do you access schools and health care clinics?
    b. Usually, how do you access (or “get to”) your workplace?
4. How do you feel about your chances to access socioeconomic opportunities? Do you think that you have a fair chance to access them, or do you face challenges?
5. What intervention(s) do you think can improve these challenges?
6. Do you know about the proposed Tswaing Mega Project coming to your area and its plans to bring new developments to the Marikana-Soutpan If so, what do you think about the project?
7. Do you expect that the project will bring new socio-economic opportunities? If so, what opportunities specifically?
8. What do you expect Marikana Soutpan Settlement to be in future?

THE CTMM PLANNER'S INTERVIEW QUESTIONS

1. What types of socio-economic infrastructure can be found in the Marikana-Soutpan area and what are their conditions?
2. What factors led to the adoption of the Mega Project in the Marikana-Soutpan area?
3. How is this project integrated with other planning policies such as the national/provincial/local SDFs?
4. How does this project plan to provide sustainable long-term employment?
5. How is the project planning to promote access to socio-economic opportunities in the area?
6. How has public participation been considered in this project?
7. Are there factors hindering and/or facilitating the implementation of the Tswaing Mega Project? What are these factors?
8. How has the local community responded to the project?
9. How do you see the Marikana-Soutpan Human settlement in future?

UNIVERSITY OF THE WITWATERSRAND
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Consent Form – Community members

1. Title of the research project: **Exploring the effect of spatial planning in delivering access to socio-economic opportunities to address spatial inequality - The case of the Tswaing Mega Project and the Marikana-Southpan community**

2. Name of researcher: **Kgomotso Malope**

3. I _____ agree to participate in this research project.

4. Please circle the appropriate options below:

a)	The research study was explained to me. I understand what this study is all about.	YES	NO
b)	I agree that my participation will remain anonymous (my name will not be used)	YES	NO
c)	My participation in the research is voluntary and I can withdraw from the research at any stage	YES	NO
d)	I agree that direct quotations from my interview may be used by the researcher in their research report	YES	NO
e)	I agree that the interview may be audio recorded	YES	NO
f)	I agree that other researchers may use the information I provide in my interview (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on	YES	NO

Participant signature: _____ Date: _____

Researcher signature: _____ Date: _____

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Consent Form – Officials

1. Title of the research project: **Exploring the effect of spatial planning in delivering access to socio-economic opportunities to address spatial inequality - The case of the Tswaing Mega Project and the Marikana-Southpan community**

2. Name of researcher: **Kgomotso Malope**

3. I _____ agree to participate in this research project.

4. Please circle the appropriate options below:

a)	I have read the Information Sheet and I have asked clarification questions about the study (optional) and I understand what the study is about.	YES	NO
b)	I agree that my participation will remain anonymous (my name will not be used)	YES	NO
c)	My participation in the research is voluntary and I can withdraw from the research at any stage	YES	NO
d)	I agree that direct quotations from my interview may be used by the researcher in their research report	YES	NO
e)	I agree that the interview may be audio recorded	YES	NO
f)	I agree that other researchers may use the information I provide in my interview (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on	YES	NO

Participant signature: _____ Date: _____

Researcher signature: _____ Date: _____

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Participant Information Sheet

Dear Sir / Madam

My name is Kgomotso Malope, I am a Masters student in Development Planning at the University of the Witwatersrand, Johannesburg. My supervisor is Dr Priscila Izar, visiting research fellow at the School of Architecture and Planning at the University of the Witwatersrand. I am conducting a research study about spatial inequality and spatial planning. The study title is "**Exploring the effect of spatial planning in delivering access to socio-economic opportunities to address spatial inequality - The case of the Tswaing Mega Project and the Marikana-Soutpan community"**

I am inviting you to take part in an interview. If you decide to take part, your participation in this research study will last about 20 minutes. With your permission, I would like to audio record the interview. This data will be stored on my computer and will be deleted one year after the compilation of the research report. Only myself and my supervisor will have access to this data. The interview will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to volunteer. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. Taking part in the research study will not cost you anything. Moreover, you will not be paid for being in this research study. The risks for this research study are no more than what happens in everyday life. This research study will be written up as a research report. If you would like to receive a summary of this report, I will be happy to send it to you.

If you have any questions during or afterwards about this research study, feel free to contact me on the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Yours sincerely,
Kgomotso Malope

Researcher:
Kgomotso Malope, 2509218@students.wits.ac.za

Supervisor:
Dr Priscila Izar, priscila.izar@wits.ac.za

GAUTENG PROVINCE
HUMAN SETTLEMENTS
REPUBLIC OF SOUTH AFRICA

Enquiries: Abongile Nolala
Email: abongile.nolala@gauteng.gov.za
Tel No.: 079 804 3992

LETTER OF ACCEPTANCE

Dear Ms/Mr. **K. Malope**

The Gauteng Department of Human Settlements has received your request to conduct research in the Department. We understand that you are currently enrolled with the **University of Witwatersrand** in a field of Architecture and Planning, studying towards master's degree in Development Planning.

We hereby grant you permission to undertake this study with the Department, Directorate Policy & Research will be your point of contact. We recognize that as a postgraduate student you understand confidentiality protocol and that this will be observed at all times, thus the research should not in any way harm the reputation of the Department, thus it should not be distributed to third parties for purposes other than the one stated above, which is fulfillment of your study requirements.

The Department would also expect that once the research project is completed that the findings from the research project will be submitted to the Department.

We look forward to speaking with you soon.

Kind regards,

Phindile Mbanjwa
Head of Department
Date: 30/08/2022

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG | SCHOOL OF ARCHITECTURE & PLANNING

07 September 2022

Dear Malope, Kgomotso Mirriam

RESEARCH ETHICS CLEARANCE – STUDENT NUMBER 2509218

This letter confirms that your clearance application has been approved. Your protocol/clearance number is: SOAP104/07/2022

Yours sincerely

J M Choabi

pp **Lerato Nkosi**
Research Administration Coordinator

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