

***Social and Labour Plans and wellbeing of South
African mining communities***

Applied Research Project

submitted by

Katlego Letsoalo

Student number: 363076

Email: 363076@students.wits.ac.za

Proposed Supervisor:

Dr TK Pooe

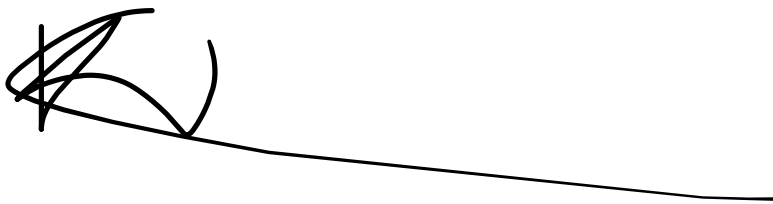
Wits Business School

[February 2023]

DECLARATION

I declare that this research report is my own, unaided work. It is being submitted to the Degree of Master of Business Administration to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.

Signed:



Katlego Masilu Letsoalo

This February day of 28 year 2023.

ABSTRACT

The mining industry in South Africa has been instrumental to the developed of the economy however legacy issues were inherited by the Republic as a result of apartheid policy that existed and were key to the mining sector. A number of policies aimed at ensuring that the broader society and mining host communities benefit from mining activity were introduced by government. Despite the policies and initiatives implemented by mining companies and local government, these communities continue to protest due to lack of basic needs in these areas. This raises the question of whether development initiatives these communities are effective. The relationship between mining companies, communities and local government is captured in the MPRDA with a focus on Social and Labour plans (SLP). This relationship is explored using Sustainable Development Goals (SDGs) which apply to all countries and reflect universal goals and targets that define the global community's desire and opportunity towards a sustainable future. They study will using SDGs to optimal evaluate whether mining companies and local government have really improved the standard of living in these communities and the overall well-being.

ACKNOWLEDGEMENTS

The journey to completing this research would not be complete if I don't acknowledge people who have been instrumental along the way. I would firstly want to thank God for giving me the insight and strength to finish this research work despite the hardship and frustration. Through the wisdom, I hope this work will go a long way in improving the well-being of mining communities.

To my supervisor Dr TK Pooe, your calm demeanour, guidance and support would have not made this journey possible. The continued support and motivation to explore different ways when challenges emerged is highly appreciated. True leadership is displayed during times of difficult and that's the exact support that was received from you during this process.

Without the participants of the qualitative aspects of this research, none of this work would be complete. I would like to sincerely thank everyone who took their time to share their lived experience with sustainable development and some of the challenges around mining communities.

Lastly, to my family thank you for the unconditional support during my studies.

TABLE OF CONTENTS

<i>CHAPTER 1: INTRODUCTION</i>	1
1.1. RESEARCH BACKGROUND	1
1.2. PROBLEM STATEMENT	3
1.3. HYPOTHESIS	4
1.4. RESEARCH QUESTION	5
1.5. RESEARCH OBJECTIVES	5
1.6. SIGNIFICANCE OF RESEARCH	6
1.7. OUTLINE OF CHAPTERS	6
<i>CHAPTER 2: LITERATURE REVIEW</i>	7
2.1. INTRODUCTION	7
2.2. MINING IN SOUTH AFRICA	7
2.3. MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT 28 OF 2002 (MPRDA)	9
2.4. MINING CHARTER	11
2.5. MINING COMMUNITY UNREST	13
2.6. SUSTAINABLE DEVELOPMENT GOALS	15
2.7. DEVELOPMENT THEORY	17
2.8. CHAPTER SUMMARY	18
<i>CHAPTER 3: RESEARCH METHODOLOGY</i>	19
3.1. INTRODUCTION	19
3.2. RESEARCH METHODOLOGY	19
3.3. DATA COLLECTION	21
3.4. DELIMITATION OF THE STUDY	22
3.5. LIMITATION OF THE STUDY	23
3.6. ETHICS	23

3.7. CHAPTER SUMMARY	24
<i>CHAPTER 4: RESULTS AND DISCUSSION</i>	<i>25</i>
4.1. INTRODUCTION	25
4.2. OVERVIEW OF QUANTITATIVE DATA.....	25
4.3. OVERVIEW OF QUALITATIVE DATA	42
4.3.1. UNDERSTANDING OF SDGS	42
4.3.2. SOCIO-ECONOMIC CHALLENGES	45
4.3.3. UNDERSTANDING OF MINING POLICY	46
4.3.4. INDICATORS AND MODEL INPUTS.....	47
4.4. FINDINGS AND THE DEVELOPMENT THEORY	48
4.5. CHAPTER SUMMARY	49
<i>CHAPTER 5: CONCLUSION AND RECOMMENDATION</i>	<i>50</i>
5.1. INTRODUCTION	50
5.2. CONCLUSION.....	50
5.3. RECOMMENDATIONS	51
5.4. CHAPTER SUMMARY	52

LIST OF FIGURES

Figure 1: Mining Contribution to South Africa (Minerals Council South Africa, 2021)	9
Figure 2: Sustainable Development Goals (United Nation, 2015)	15
Figure 3: Sekhukhune District Municipality (CoGTA, 2020)	22
Figure 4: Research approach and process flow	24
Figure 5: <i>Distribution of traditional authority areas</i> (Cooperative Governance & Traditional Affairs, 2020).....	26
Figure 6: Distribution of Healthcare facilities (Cooperative Governance & Traditional Affairs, 2020)	30
Figure 7: Electricity Connection (Cooperative Governance & Traditional Affairs, 2020)	36
<i>Figure 8 Progress in Education</i> (Cooperative Governance & Traditional Affairs, 2020).	38

LIST OF TABLES

Table 1: SDG Well-Being indicator (Cole & Broadhurst, 2021)	20
<i>Table 2: SDG 2 No Poverty</i>	27
<i>Table 3: SDG 3 Good Health</i>	28
<i>Table 4: SDG 4 Quality Education</i>	32
<i>Table 5: SDG 5 Gender Equality</i> (Electoral Commission of South Africa (IEC), 2021)	33
<i>Table 6: SDG 6 Clean water and sanitation</i>	34
Table 7: SDG 7 Affordable and clean energy	35
<i>Table 8: SDG 8 Decent Work</i>	37
<i>Table 9: SDG 11 Sustainable cities and communities</i>	39
<i>Table 10: 17 Partnership for the goals</i>	39
Table 11: Well-Being Indicator	40

CHAPTER 1: INTRODUCTION

1.1. RESEARCH BACKGROUND

The mining industry in South Africa has been central to the development and industrialisation of the country's economy over several years. Growth in the sector has been instrumental in influencing migration patterns, socio political issues and integrated spatial planning within mining areas. Nxele, (2016) argues that Apartheid which was instrumental in the growth of the mining industry in South Africa has created two opposing views around the industry's impact on society. Beneficiaries of racial policies that existed during Apartheid associate mining with economic development and industrialisation of South Africa while the working class that served as labour reserves associate the sector with underdevelopment and increased poverty (Nxele, 2016).

The contrasting views around the mining industry's contribution to development continues to play themselves out in host communities post democratic South Africa as documented by the Human Rights Commission hearings on underlying socio-economic challenges of mining-affected communities (South African Human Rights Commission, 2018). The Apartheid government had a separate development plan for segregated areas which included homelands that were primary labour sending areas. This approach to development was widely detested within the country as it increased the inequality gaps while improving living conditions in suburban areas.

An analysis of data by Butler et al., (1977) on the impact of mining in Bophuthatswana (a former homeland currently known as North West Province) found that mines had very minimal contribution on the provision of income for residents. Contracts between the South African government, homelands and mining companies hampered development within the areas while channelling financial resources and opportunities outside of the homelands.

To address legacy issues in South Africa and particularly the mining industry, several legal interventions have been introduced by government since 1994. Some of the significant mining applicable regulations include the Black Economic Empowerment

(BBE) Act of 1996 which was aimed at increasing participation of historically disadvantage (HDSA) people in the economy, the Employment Equity Act of 1998 focused mainly on minimum employment condition and equity, the Skills Development Act of 1998 that was targeted at increasing knowledge and competencies of HDSAs, the Broad-based Black Economic Empowerment (BBBEE) Act of 2003 (a follow-up to the BBE Act) and the Minerals and Petroleum Development (MPRDA) Act of 2002 which was amended 8 years later. As a means of providing further support to the MPRDA, the Mining Charter was introduced to guide the mining industry on the transformation objectives as prescribed by the government.

Most of the government policies introduced in the mining sector are primarily aimed at ensuring maximum benefit within host communities given that mineral resources become depleted overtime. It is argued that the South African legislation targeted at the mining industry fails to adequately address poverty and marginalisation due to the current definition of a community which fails to capture the complexities around mines by isolating this to tribal authorities (Mnwana, 2015). This raises a challenge on whether true development in mining communities has been realised post-democracy.

A survey of 250 mining CEOs conducted by Ernest & Young (E&Y) saw the license to operate in mining moving from 7th to 1st top 10 business risk between 2018 and 2020 mainly due to the changing stakeholder landscape and the increase expectation of shared value in mining projects (E&Y, 2019). It is important to note that the license to operate expands beyond the mine gate with an increased focus on a company's ability to meet both shareholder and community expectation, this is often referred to as the social licence to operate (SLO). The SLO is an informal social contract that does not have the legal status of a contract. The concept was introduced in the late 1990s, when the mining industry failed to fulfil societal and community expectations but can be applied in any sector (Komnitsas, 2020).

An opportunity to realign the government, mining industry and community expectations in mining is presented by the Sustainable Development Goals (SDG) despite the goals being considered ambitious and not having a prescribed implementation directive for companies (Fraser, 2019). The United Nations approved the SDGs as a universal call to eradicate poverty, preserve the environment and ensure the overall wellbeing of society. This commitment was embraced by corporates (including the mining sector)

to ensure that they contribute to broader societal development and align to 2030 milestones set by the United Nations. The International Council on Mining and Metals (ICMM) argues that mining activity and social policies of mining companies can contribute to economic growth however, there is no causality as several factors are at play including government policy and capacity (ICMM, 2018). This creates room for one to evaluate whether the intention behind South African mining policy and industry community investment is effective considering the increase in community protests and dissatisfaction across various mining regions.

The continued differences between mining communities' expectations and companies' intended impact emphasises the need to unpack SDGs indicators while working towards 2030 global commitments. This research seeks to expand on the foundation presented by Cole & Broadhurst, (2021) of measuring SDGs in mining communities and unpacking some of the challenges with a focus on the Eastern Limb Bushveld complex (Sekhukhune), which forms part of the former homelands.

1.2. PROBLEM STATEMENT

The Mineral and Petroleum Resources Development Act, 2002, (Act No 28 of 2002) (MPRDA) (Regulation 42) requires the submission of the Social and Labour Plan (SLP) as a pre-requisite for the granting of mining or production rights. The SLP requires applicants for mining and production rights to develop and implement comprehensive Human Resources Development Programmes, Mine Community Development Plan, Housing and Living Conditions Plan, Employment Equity Plan, and Processes to save jobs and manage downscaling and/or closure. The spirit of the regulations is aimed at ensuring the improvement of well-being of communities in mining areas.

Despite extensive regulation and remarkable attempts by mining companies and government to pursue progressive and sustainable projects, current industry practice is marred by inconsistent legal compliance raising gaps with current legislation and the effectiveness of community development projects (South African Human Rights Commission, 2018). As a result, many mining-affected communities continue to suffer from significant poverty and systemic inequality, perpetuating the perception that

mining operations benefit mining companies and the state disproportionately at the expense of local residents.

Several studies found that the Sekhukhune district in Limpopo has proven to be one of the most protest prone mining regions in South Africa with continued conflict between mining companies and communities driven by development and economic opportunities (Karamoko, 2011; Litha, 2019; SCMAC et al., 2022). Most of the studies around the challenges in the region have followed a qualitative approach to unpack the impact of mining around communities however, there are limited quantitative studies measuring development in the areas affected by mining. Cole & Broadhurst (2021), provide a quantitative approach through SDG indicators with a focus on No poverty (1), Good health (3), Quality education (4), Gender equality (5), Clean water and sanitation (6), Affordable and clean energy (7), Decent work (8), Sustainable cities and communities (11) and Partnerships for the goals (17) as a measure of development within mining communities. This study therefore seeks to expand on this approach to provide a perspective around the development issues in the Sekhukhune district.

1.3. HYPOTHESIS

Null hypothesis

The presences of mining companies in the Sekhukhune District has improved the quality of living of communities as measured through the various SDGs. This impact can be attributed to effective policies and collaboration between stakeholders at a local government level.

Alternative (s1)

The presences of mining companies in the Sekhukhune District have deteriorated the quality of living of communities as measured through the various SDGs. This deterioration can be attributed to ineffective policies and poor collaboration between stakeholders at a local government level.

1.4. RESEARCH QUESTION

Main question

Are mining activities in the Sekhukhune district benefiting local communities by improving their standard of living?

Sub-questions

1. Do poor socioeconomic indicators reflect a mining policy failure in the district?
2. Do current policy instruments such as the MPRDA ensure alignment between mining SDG related initiatives and District development plans?
3. What initiatives can be implement to enhance SDG objectives between local government and mining houses?
4. What role do municipalities and mining companies have to play in achieving the 2030 SGD goals?

1.5. RESEARCH OBJECTIVES

The objectives of this study include

- ☐ Objective 1: Apply the SDG Well-Being indicator (Cole & Broadhurst, 2021) at district level;
- ☐ Objective 2: Quantify whether mining is benefiting local communities in Sekhukhune district;
- ☐ Objective 3: Identify factors that contribute to poor socio economic challenges despite the presence of mining operations in the district;
- ☐ Objective 4: Articulate the role of mining companies and municipalities in achieving 2030 SDG goals.

1.6. SIGNIFICANCE OF RESEARCH

The study seeks to close the research gaps on socioeconomic indicators as outlined in the Sustainable Development Goals with a particular focus on mining development. Progress related to the mining industry has always focused on governance or economic metrics at a national level which is not always a true reflection of the sectors impact within its host communities. The study intends to assess qualitative and quantitative data around mining SDGs to ascertain whether there is alignment between stakeholders and the impact of mining policies.

1.7. OUTLINE OF CHAPTERS

Chapter 1 provided an outline of the problem statement that formed the basis of this research together with the research questions that this paper seeks to address. The significance of this research is also presented in the previous section. Chapter 2 of this report provides an overview of how mining in South Africa has influenced development in the country and the various policy instruments that guide this development. SDGs are introduced in this chapter and how they related to the mining industry, mining communities and the government at various levels. The methodology used in the study to achieve the research objectives is covered in Chapter 3. The findings of the research are presented in Chapter 4 with a focus on both the quantitative and qualitative outcomes. Conclusions and recommendations derived from the study are presented in Chapter 5.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

Following the end of apartheid and the inauguration of the Republic of South Africa's first democratic administration, the new government enacted several laws and policies to address the past disadvantages suffered by racially oppressed South Africans. The mining industry was one of the sectors that drove economic growth in the country while arguably compromising equality. This literature review presents the history and significance of the mining industry in South Africa, community empowerment policies aimed at transformation and protests by mining host communities. SDGs are introduced in the literature as a globally accepted measure of well-being to try and unpack key consideration for measuring the social impact of mining.

2.2. MINING IN SOUTH AFRICA

South Africa has a long history of being a significant global provider of minerals and mineral products and continues to play an important role in mining and minerals, as seen by the production of 55 minerals from 1113 mines in 2005 (United Nations, 2006). The country possesses some of the world's largest known reserves of Platinum-Group Metals (PGMs) (88%) mostly in Limpopo and the North West Province, Manganese (80%), Chromite (72%), and Gold (13%) and is ranked second in Titanium minerals (10%), Zirconium (25%), Vanadium (32%), Vermiculite (40%), and Fluorspar (17%) (U.S Geological Survey, 2016).

The discovery of gold was a watershed moment in South African history. In 1886, gold was discovered on the Witwatersrand, and this propelled the transition of South Africa from being an agrarian society to being the world's top gold producer. Gold was discovered on Langlaagte, a Transvaal farm, in 1886 which spanned for several kilometres underground. This resulted in the transformation of the Transvaal which was which was a struggling Boer republic prior to 1886. It then became the world's richest gold mining area ten years later. With this discovery, trade began to pick up as gold was valuable to Europe and the United States because their currencies were backed by gold. Prices were kept low to assist European and American countries.

During apartheid, most of South Africa's platinum reserves were geopolitically located. Since the mid-1990s, the platinum industry in South Africa has grown significantly, becoming the country's largest mining sector. South Africa is the world's largest producer of platinum, contributing around 75% of the world's supply (151 tons in 2011) with approximately 38% of platinum used for automobile emission control systems (catalytic converters), 31% for jewellery, 25% for industrial purposes, and 7% for investment (UKEssays, 2018). The platinum sector is mainly dominated by Anglo American Platinum, Sibanye Stillwater Platinum and Impala Platinum with operations mostly in the Western Limb of the Bushveld complex (North West). Several companies are now exploiting platinum and chrome deposits in the Eastern Limb Bushveld complex (Limpopo) which is considered a fairly new mining region that falls within the Sekhukhune district. Mining has joined agriculture in the Eastern Limb Bushveld complex as significant employers with mining activities dating back to 2002 in the area, unemployment is 47% and is estimated to grow to 56% in 2030 (SCMAC et al., 2022).

Despite the impact of Covid-19 on the global economy, mining remained a key contributor to the economy of South African during the pandemic as seen in figure 1. Production disruptions due to National lockdowns do not appear to have had a significant impact on employment levels with the total number of employees in 2020 totalling 452 866, a decrease of 9,172 jobs, or 2%, from the average in 2019 (Minerals Council South Africa, 2021). Employees pay, on the other hand, climbed by 5% in the same year (Minerals Council South Africa, 2021).

The mining sector generated about R575 billion in export revenue, R608 billion in total mineral sales, R27.2 billion in corporate taxes, and R11.8 billion in royalties, contributing 8.2% of the GDP (Minerals Council South Africa, 2021). In addition to direct contributions, the industry serves as a pillar for other economic sectors like agriculture, infrastructure, and energy.



Figure 1: Mining Contribution to South Africa (Minerals Council South Africa, 2021)

2.3. MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT 28 OF 2002 (MPRDA)

The Mineral and Petroleum Resources Development Act No 28 of 2002 (MPRDA), which governs mineral exploration and exploitation in the country, was promulgated in 2004 following its Parliamentary approval in October 2002 (Republic of South Africa, 2002). Amendments to the Act have been made since then (Republic of South Africa 2007, 2009). The MPRDA has several objectives however, three are of key importance to the wholistic development of South Africa. The Act places custodianship of mineral resources on the State and emphasises the need to expand opportunities for historically disadvantaged people, especially females, to participate in the mining industry while profiting from the South Africa's mineral and petroleum endowment in a significant and meaningful way. Through the MPRDA, mining rights holders are required to contribute to the socio-economic development of their host communities.

The SLP submission as a prerequisite for the approval of mining or production rights is a significant regulatory component of the MPRDA. To help the industry's transition from exclusionary practice, the SLP requires applicants of a mining or production right to compile and implement comprehensive human resource development programs, including employment equity plans. SLPs should be viewed in light of the socio-economic rights enshrined in Sections 27 and 29 of the South African Constitution mainly focused on health care, food, water, social security and education respectively which impose equivalent responsibilities on the government and potentially private companies (SCMAC et al., 2022).

The objectives of the Social and Labour Plan are to (Department of Mineral Resource and Energy, 2010):

- a) Promote economic growth and mineral and petroleum resources development in the Republic (Section 2 (e) of the MPRDA);
- b) Promote employment and advance the social and economic welfare of all South Africans (Section 2 (f) of the MPRDA);
- c) Ensure that holders of mining or production rights contribute towards the socio-economic development of the areas in which they are operating as well as the areas from which the majority of the workforce is sourced (Section 2 (i) of the MPRDA, and the Charter); and
- d) To utilize and expand the existing skills base for the empowerment of HDSA and to serve the community.

Municipalities are required by law to have a five-year Integrated Development Plan (IDP) focused on addressing challenges related to development within their jurisdictions and the required expenditure, according to the Local Government: Municipal Systems Act 32 of 2000. A municipality's development goal is reflected in the IDP and should be reviewed annually to ensure that it is aligned to pressing issues within communities. The MRPDA requires mining companies to ensure that SLPs align with municipal IDPs, as mining host communities participate in the development, implementation, and assessment of all IDPs (SCMAC et al., 2022). The design of local economic development (LED) programs targeted at preserving jobs and managing downscaling and/or closure, is another element of SLPs. The MPRDA emphasises the need to ensure alignment between LED and IDPs, as the underlying process of IDP

development requires extensive community input. The LED projects, as defined by the DMRE, do not constitute corporate social investment that mining companies are accustomed to but rather focus on the legacy of mining operations post closure (Department of Mineral Resources, 2010).

International concern that mining companies too frequently tend to take over local government functions led to the idea of collaborative planning (Matebesi & Marais, 2018a). Institutional issues arise from the fact that local planning procedures are now managed by a national department with essentially no planning expertise. As a result, the mines were compelled to create integrated development plans, which are social and labour plans that must tie IDPs. SLPs have come under fire for several issues, including (Matebesi & Marais, 2018a):

- They are private documents because they are a part of the contract between the Department of Mineral Resources and the mining company,
- Weak IDP equates to weak SLPs, and
- These are unable to account for the long-term effects of mine closure

The strategy of mining companies around the SLPs must contain activities targeted at eradicating poverty and developing infrastructure, as well as plans to address housing and living circumstances, including employee health. Development projects, according to the DMR's SLP Guidelines, should include both infrastructure and revenue-generating projects (Department of Mineral Resources, 2010). The various programs prescribed in the SLP aim to promote employment and the social and economic welfare of all South Africans' while assuring economic growth and socio-economic development (Rogerson C, 2011). As part of the guidelines issued by the Department of Minerals and Energy (DMRE), holders of mining rights and permits are required to provide annual reports on the SLP progress (Department of Mineral Resources, 2010).

2.4. MINING CHARTER

The Mining Charter, also known as the Broad-Based Black Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry, was first developed in 2002 and revised in 2010. Following the MPRDA, the Charter was created as a tool to help the industry transform. The Mining Charter included

provisions to redress the inequities of past injustices by desegregating the mining industry's ownership, improve the industry's competitiveness and productivity by increasing employment and diversifying the workforce, significantly increasing chances for historically disadvantaged individuals, particularly females to participate in the mining industry while profiting from the South Africa's mineral and petroleum endowment, improve social and economic welfare in mining communities to achieve social cohesion and promote sustainable development and growth of the mining industry (Department of Mineral Resources, 2018).

The DMRE undertook a detailed study in 2009 to determine the status of transformation in the mining industry in relation to the Mining Charter's objectives and agreed-upon benchmarks. The study found several flaws in the mining industry's application of the Charter elements, including ownership, procurement, employment equity, beneficiation, human resource development, mine community development, housing and living conditions. To address these gaps, the Mining Charter was revised to streamline and accelerate the achievement of its goals. Provisions were made for the sustainable development component, which aimed to assure the mining industry's long-term transformation and growth was included in the revised Charter (Department of Mineral Resources, 2018).

In the legal challenge of the 2018 Mining Charter (*Minerals Council South Africa v Minister of Mineral Resources and Energy and Others Case No:20341/19 [2021] (HC)*, 2021), communities argued that there had not been enough consultation and that the Charter did not adequately address poverty and inequality, as well as the full impact of mining. The Minerals Council which represents a significant number of mining companies operating in South Africa had brought an application, under the Promotion of Administrative Justice Act 3 of 2000 (PAJA), seeking to review and set aside certain clauses of the Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry, 2018 (the 2018 Charter). In the alternative, the Minerals Council sought a declarator that the challenged clauses that are inconsistent with the principle of legality and should be set aside. The biggest challenge raised by the industry related to the principle of "once empowered, always empowered" with a key focus of recognising all empowerment efforts that occurred prior to the gazetting of new mining charter.

The judge presented the following ruling: *“Thus having considered the language of section 100(2) of the MPRDA in light of its ordinary meaning, the context in which it appears and the apparent purpose for which it is directed, I conclude that section 100(2) of the MPRDA does not empower the Minister to make law. In other words, the 2018 Charter is not binding subordinate legislation but an instrument of policy. This interpretation is not inconsistent with the objects of the MPRDA”*(*Minerals Council South Africa v Minister of Mineral Resources and Energy and Others Case No:20341/19 [2021] (HC)*, 2021). The ruling emphasised the legal position of the Mining Charter which is primarily considered as a policy rather than binding law to mining right holders in South Africa.

2.5. MINING COMMUNITY UNREST

The national and local benefits of mining continue to be incompatible in South Africa despite the significant export revenue generated from the industry. Worse, South Africa's experience has demonstrated that many mining-affected communities are often worse off because of the industry's detrimental social, economic, and environmental effects (South African Human Rights Commission, 2018). Protest action in the mining sectors over recent years have stemmed from several challenges that include poor consultation with mining communities, no accountability by mining operations, poor wage and living conditions.

Mining community and mining company conflict is not a new occurrence and as a result various mitigation strategies have been considered over the years. Some of the measures introduced to mitigate against conflict within mining areas include the SLO, local accountability, and local control of mining operations (Matebesi & Marais, 2018b). Over the last decade, there have been numerous instances of violent protests involving host communities and employees in the Western Limb of the Bushveld complex. Large-scale strikes have occurred in the past, with the Marikana massacre in 2012 being the most significant followed by an extensive five-month wage strike in 2014.

Homelands that were previous labour sending areas during apartheid have over recent years become mining areas. These areas include coal and titanium mining region in the former Zululand (now Kwa-Zulu Natal), titanium mining regions in the former

Transkei (now Eastern Cape), and PGM mining in the former Lebowa and Bophuthatswana homelands (now North West Province and Limpopo respectively) (Matebesi & Marais, 2018b). Resistance of mining in former homelands is primarily due to land ownership and the consultation process which is often seen as collusion between mining companies and tribal authorities. The current South African mining policy ignores the different land histories that currently define community's negative views on mining and, in particular, control of income derived from mining activities (Mnwana, 2015).

The ambiguity in the definition of 'community' in mining regulations is one factor complicating the mining-related conflict. The community is defined in the original version of the MPRDA (2002) as a cohesive, social group of persons having an interest in rights in a specific area of land that the members hold or exercise communally in accordance with an agreement, custom, or law. The statute offers communities several benefits because of this definition, including a relevant right to prospect and mine minerals on the land they occupy and the continuation of royalties. The definition of a communities has gone through various amendments and Mnwana (2015) argues that none of the definitions of a community as currently prescribed in the MPRDA captures that complex character of communities occupying mining land. In the mining industry, what the government touts as "community inclusion" can replicate and intensify marginalization, poverty, and violence at the village level (Mnwana, 2015).

SCMAC et al., (2022) found that two key drivers behind community unrest include co-option of community representatives and grievance mechanism for communities. Mining companies are accused of manipulating the formation of community representation structures which results in communities feeling that their issues are not adequately ventilated. The need for community engagement forums was raised as a requirement given that several mining companies do not have an effective widely publicised community grievance process (SCMAC et al., 2022).

Cole & Broadhurst (2020) argue that if the mining industry intends to monitor and report on SDGs, it must clearly define mining communities as most of the SDGs relate to people and communities rather than businesses. The measure of well-being in communities is entirely reliant on reports outside the mine gate.

2.6. SUSTAINABLE DEVELOPMENT GOALS

The Millennium Development Goals (MDGs) represent a historic and effective strategy of global mobilization for the achievement of a set of critical socioeconomic objectives around the world. Some of the focus areas included gender equality, poverty, health, education, and environment. These goals assisted in raising global awareness, defining clear measurables and ensuring political accountability by publishing eight key goals with defined timelines and measurables that countries worked towards (Sachs, 2012).

The MDGs of 2000 were superseded with the agenda 2030 that was approved by the United Nation, which included 17 Sustainable Development Goal as seen in figure 2. Unlike the MDGs, the SDGs apply to all countries and reflect universal goals and targets that define the global community's desire and opportunity towards a sustainable future. There are 169 targets in the SDGs, as well as a defined set of global, national, and thematic indicators against which progress can be measured. The numerous facets of environmental stewardship, economic and human development, governance, peace, and justice that together define global norms for responsible business behaviour are covered by this umbrella of goals, targets, and indicators (Sturman et al., 2018).



Figure 2: Sustainable Development Goals (United Nation, 2015)

Most of the SDG goals would be impossible to achieve without the contribution of minerals and metals, which are a key input to sectors such as manufacturing while also producing jobs and value add throughout material supply chains (Mancini & Sala, 2018). The extraction of mineral has also been associated with negative environmental and social issues such as global warming, portable water, and decent jobs. These challenges increase the complexity of achieving the development goals in mining regions.

The relations between mining and SDGs were introduced through the Atlas with a primary intention of mapping the linkages to encourage mining companies to incorporate these goals into the business, increase the understanding within the industry and facilitate collaborative dialogue towards their achievement (World Economic Forum, 2016). Three major categories namely; social inclusion, economic development and environmental sustainability are presented as a base for including these indicators in the mining sector.

Social inclusion emphasises the impact mining has on local communities through economic opportunities but also raises questions around livelihood and human rights. SDG1, SDG 5 and SDG 10 highlight how mining companies generate revenue for government through various policy instruments such as tax and royalties as a means for development over and above local jobs and business opportunities. SDG 16 indicates the influence mining can have to ensuring stability in communities by preventing and resolving company-community conflict and protecting human and indigenous peoples' rights (World Economic Forum, 2016).

Mining can have a positive impact on economic development and growth at the local, regional, and national levels, which can be used to fund new infrastructure, technology, and labour possibilities through Economic Development. This relates to SDG 8 and SDG 9, where direct and indirect economic benefits from infrastructure such as roads and water could benefit local communities while providing decent work.

An analysis of the social progress in mining dependent countries by the International Council on Mining & Metals (ICMM, 2018) provides a different perspective on the impact of mineral resource abundance and economic development using SDGs as a measure. Studies have tended to focus on economic measures while disregarding

social indicators, thus creating a knowledge gap (ICMM, 2018). Previous work on SDGs and mining focused mainly on mining company and what they can do within their operations; however, for many of the SDGs, it makes more sense to concentrate on mining host communities that are directly affected by the mines activities (Cole & Broadhurst, 2020).

2.7. DEVELOPMENT THEORY

Development in the modern meaning entails an intentional social change in line with societal goals (Hettne, 2010). Nederveen PJ., (2010) introduces the concept of improvement to the definition of development as he argues that not all societal goals are developmental (some are only focused on establishing authority, for example), he defines development as the *organized intervention in collective affairs according to a standard of improvement*. The improvement criteria and relevant interventions certainly vary depending on class, culture, historical context, and power dynamics. These difficulties are discussed in development theory.

Development should be viewed in terms of people's ability to do the things they have good cause to value, according to Sen, (2009): "*The focus here is on the freedom that a person actually has to do this or be that things that he or she may value doing or being*". This strategy assumes that freedoms both the "negative" ones, such as the freedom from unjustified coercion, as well as the "positive" ones, such as the freedoms of speech and expression, of association, and of movement are essential to human existence (Harriss, 2013). In this perspective, growth "may be regarded as a process of expanding the genuine freedoms that people enjoy" (Harriss, 2013).

The traditional unit of development in development theory, from the classical period through to dependency theory, was centred around the nation. Country statistics continue to be the primary development metrics and statistics employed by international institutions. Although the nation continues to be the primary area of development, there are now other players in the field with development evolving into a multilevel, multiscale set of activities that are concurrently occurring at levels below the nation (Nederveen PJ., 2010).

In light of ecological issues, the negative effects of technological advancement, and several other issues, modernity no longer seems to be so alluring. In a time when local culture and cultural variety are being valued more highly, the case for Westernization is no longer convincing. The topic of modernisation toward which modernity arises in light of the concept of many modernities (Nederveen PJ., 2010). Understanding the mechanisms underlying social change is the goal of development theories (Harriss, 2013).

Pooe, (2018) considers development as study (and process) that can be considered to have three phases of operation focused on, the country's systemic analysis of the prevalent socioeconomic variables and constants that obstruct their path to some level of socioeconomic growth. The country's development of evidence-based strategies to accomplish their stated aims and objectives forms part of the second phase. The final stage examines how the strategies are carried out, whether with the aid of governmental apparatuses or by other methods.

Harris, (2013) argues that results of this analysis show that the same parameters have various meanings depending on the circumstance. Context is a critical factor when looking at developmental theory, any form of strategy should be context specific including the drivers of social change.

2.8. CHAPTER SUMMARY

The literature review presented the continued significance of the mining industry to the South African economy and broader development. Despite the various policy instruments that government has put in place to support development, a number of challenges are presented including the continued unrest in doorstep mining communities. SDGs are introduced as a measure of desire and opportunity towards a sustainable future across various stakeholders. Development theory is introduced in the literature with emphasis being placed on the need to ensure that development is driven by societal changes within a specific context.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. INTRODUCTION

The study focuses on the relation between important policies such as SLP and the overall welling of South African mining communities who are the intended beneficiaries of the policies. The chapter provides the details on the data and the methodology that will be used to outline how wellbeing will be measure. SDG indicators that are applicable to the mining industry are presented as a key measure that would be used to quantify wellbeing indicators. A qualitative method is also introduced as a means on understanding the relations between the quantitative data versus the lived experience.

3.2. RESEARCH METHODOLOGY

The research follows a mixed method approach to assess whether mining has improved the quality of living at a community level. An objective means of understanding whether mining contributes to development within its host communities involves quantitatively measuring SDGs that are related primarily to people at a community level. Social indicators provide robust and outcome-focused measures that can be used to evaluate social progress in communities that are reliant on mining activities.

Cole & Broadhurst, (2021) provide a comprehensive analysis of various SDG indicators that are applicable to mining in South Africa having considered the various baseline reports from Statistics South Africa (StatsSA), Department of Monitoring and Evaluation (DPME), South African Index of Multiple deprivation (SAIMD) and South African Multidimensional Poverty Index (SAMPI). Table 1 provides a summary of the indicators that were measured to address the main question of the research.

Each indicator was assigned an individual score and the overall wellbeing was derived as the sum of the 11 indicators divided by 110. This allows one to rank the communities in relation to well-being and compare the performance against other mining regions.

Table 1: SDG Well-Being indicator (Cole & Broadhurst, 2021)

SDG	Dimension	Indicator
1 No poverty	Income Household goods	% households with income more than R19,600/year % households that own a refrigerator
2 Zero hunger	Food security	<i>Not defined due to lack of community level data</i>
3 Good health	Health	% population without a disability (seeing, hearing, communicating, walking/climbing stairs, remembering/concentrating, or self-care)
4 Quality education	Education	% adults (age 20 or older) with NQF4 qualification (Grade 12, NTC3)
5 Gender equality	Gender representation	% female representation in local government (councillors)
6 Clean water and sanitation	Sanitation Water	% population with piped water in their dwelling or yard % population with access to a flush toilet or chemical toilet
7 Affordable and clean energy	Electricity access	% population with access to electricity
8 Decent work	Employment	% labour force (including discouraged jobseekers) employed
9 Industry, innovation, and infrastructure	Access to transport	<i>Not defined due to lack of community level data</i>
10 Reduce inequality	Income inequality	<i>Not defined due to lack of community level data</i>
11 Sustainable cities and communities	Housing	% population in formal housing
16 Peace, justice, and strong institutions	Safety	<i>Not defined due to lack of community level data</i>
17 Partnerships for the goals	Internet Access	% population with access to internet

The qualitative aspect of the research was used to understand common trends around the social realities related to SDGs within mining companies, communities and local government. This approach further aids in addressing that gap between the qualitative data which relates to the 2011 Census information versus where development is currently within the areas.

A key link between the relationship of mining companies, government and communities lies in the MPRDA. An understanding around the spirit of the policy and how its implementation is received is a critical element of the research.

3.3. DATA COLLECTION

The research is based on secondary data sourced from the StatsSA Census survey collected from *Data First* (Statistics South Africa, 2014) that provide insights on household information. Some of the data provided by the Census survey include how many people live in the district, their gender, age, living conditions, access to basic services etc. The nature of data sources from the Census is time based with the last National Census concluded in 2011. Since 1994, Statistics South Africa has conducted three censuses: in 1996, 2001, and 2011. A process is underway to conduct a 2022 National Census, the publication of this data influenced the time series that was considered by the research. Stats SA undertakes an independent evaluation called the Post-enumeration Survey as part of its quality assurance process (PES) which is significant to ensure accuracy and reach of Census information (Stats SA, 2021).

The qualitative aspect of the research targeted three groups namely mining companies, local municipality, and communities within mining areas. This study used a purposive sampling technique to identify interviewees. The purposive sampling approach, also known as judgment sampling, is the deliberate selection of a participant based on the traits the participant possesses, according to Etikan, Musa, and Alkassim (2016).

The importance of collecting research data in this manner is stressed by (Bernard, 2002), as quoted in Etikan et al. (2016), because data aids in a better comprehension of a theoretical framework. According to their knowledge or experience, the researcher decides what information is needed and then searches for individuals who can and will

3.5. LIMITATION OF THE STUDY

The reliance on Stats SA for data determined whether the research can cover findings from the 2022 Census information. The absence of 2022 data can pose a risk as the study might not be able to cover the 10-year developmental changes in the various mining host communities given the time difference between the census readings. This will have a material impact on the severity of development and migration patterns that could have been experienced between the time period. This was address by conduction interviews to understand what improvements or lived experience exist in 2022. The following SDGs namely 2,9,10 and 11 are not covered in the study as the information at a community level is not available.

3.6. ETHICS

In line with the university process, a process of applying for an ethics approval will be submitted to cover the semi structured interviews which will involve mining companies, local municipality, and communities. Participants will not get any compensation in order to maintain the integrity of the study. The research will only accept voluntary participants. By keeping participants' names and positions out of the final findings, the participants' identities will be protected. The participant interviews will be kept for the duration required by the Wits Business School in a password-protected folder on the researcher's hard disk. In order to accurately reflect participant replies, interview results will be interpreted and published in a fair and honest manner.

3.7. CHAPTER SUMMARY

The approach of the research is covered in Chapter 3 and a summary presented in Figure 4. Key considerations such as the source of data and key considerations that could affect the study are covered in the chapter. Outcomes of the methodology are covered in the next chapter.

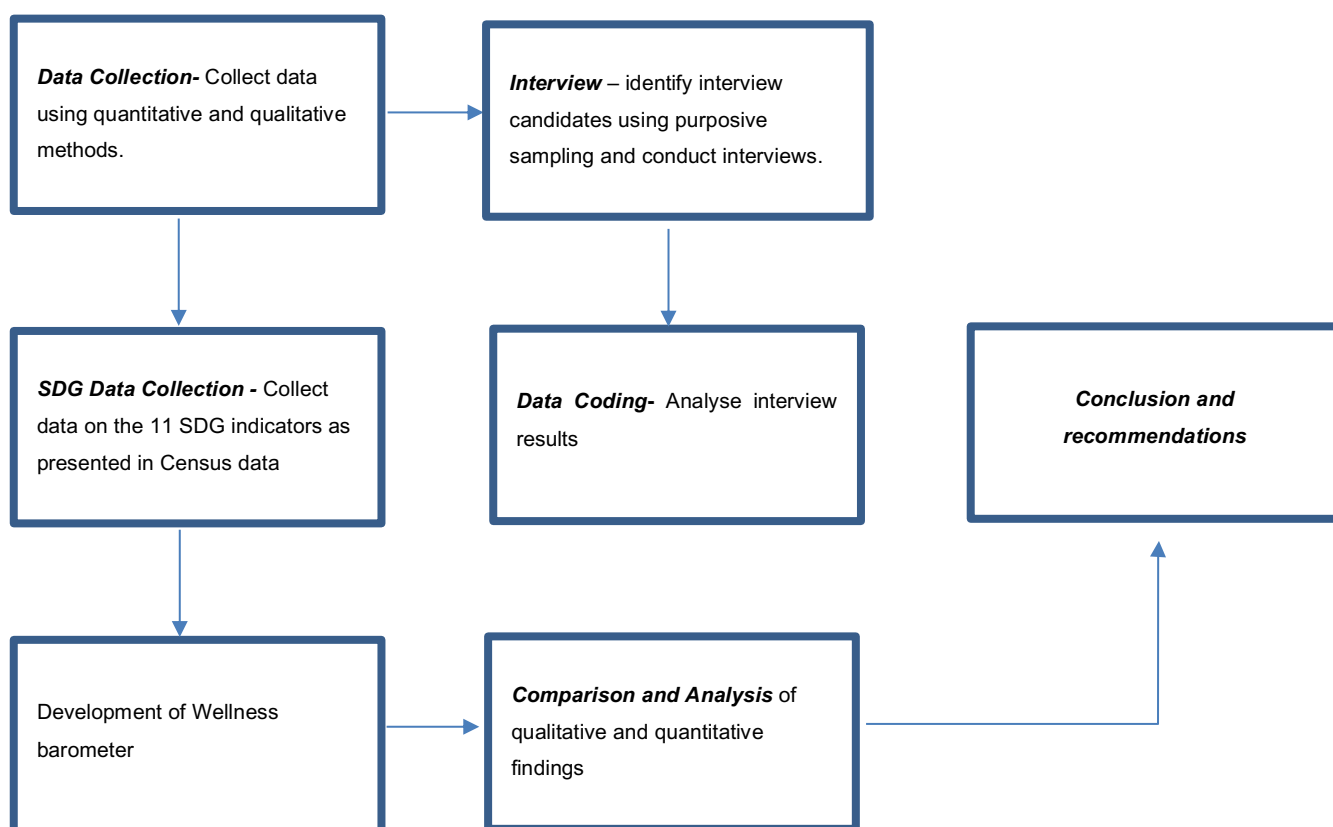


Figure 4: Research approach and process flow

CHAPTER 4: RESULTS AND DISCUSSION

4.1. INTRODUCTION

The objective of the study is to explore whether mining activities in the Sekhukhune district is benefiting local communities by improving their standard of living. The study intends to use 11 SDG related indicators that can be applied to mining communities to quantify whether there has been any improvement in the overall wellbeing. This chapter presents an analysis of the outcomes derived from the qualitative data sourced from DataFirst (Statistics South Africa, 2014) and the complementary interviews completed as part of the research.

4.2. OVERVIEW OF QUANTITATIVE DATA

This section of this chapter will focus on the quantifying of whether there has been some development realised in the Sekhukhune District using a number of SDG indicators. The quantitative data is instrumental in addressing objective 1 of the research which entails applying the SDG well-being indicator at a district level. Individual indicators are presented across the various goals and a wellness indicator is derived and presented afterwards. The computation of the computation and analysis of the quantitative data was completed using Statistical Package for the Social Sciences (SPSS).

Figure 5 provides an overview of the district together with the various tribal authorities that form part of the district and the land they occupy. Sekhukhune District Municipality has tribal control over an estimated 658 887 hectares of land, this accounts for roughly 48% of the district's overall area (Cooperative Governance & Traditional Affairs, 2020).

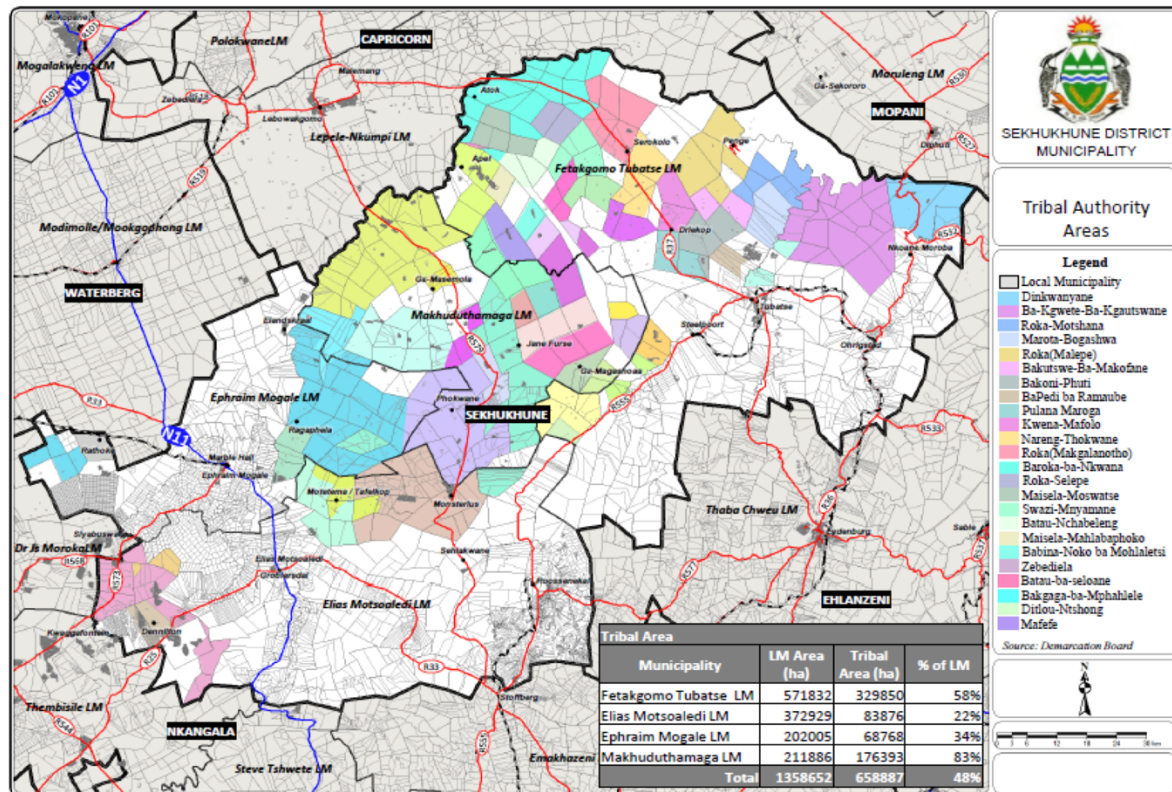


Figure 5: Distribution of traditional authority areas(Cooperative Governance & Traditional Affairs, 2020)

Table 2 presents indicators that are linked to SDG 1 goal which focuses on poverty. Only 7.4% of the residents in the area earn an income greater than the minimum threshold of R19 600 per annum while 76.8% of the population owns a refrigerator. The income indicator highlights the level of poverty in the region given the impact of inflation over the years affecting the cost of living within South Africa. Despite the number of households that own refrigerators, the ability of generating a decent income remains a key enabler of preventing poverty.

Table 2: SDG 2 No Poverty

		Income category			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. No income	43937	45.0	45.2	45.2
	2. R 1 - R 4800	27062	27.7	27.9	73.1
	3. R 4801 - R 9600	2636	2.7	2.7	75.8
	4. R 9601 - R 19200	12188	12.5	12.6	88.4
	5. R 19201 - R 38400	2247	2.3	2.3	90.7
	6. R 38401 - R 76800	2223	2.3	2.3	93.0
	7. R 76801 - R 153600	1646	1.7	1.7	94.7
	8. R 153601 - R 307200	907	.9	.9	95.6
	9. R 307201 - R 614400	215	.2	.2	95.8
	10. R 614401- R 1228800	30	.0	.0	95.9
	11. R 1228801 - R 2457600	25	.0	.0	95.9
	12. R2457601 or more	27	.0	.0	95.9
	99. Unspecified	3963	4.1	4.1	100.0
	Total	97106	99.4	100.0	
Missing	System	545	.6		
Total		97651	100.0		

		Refrigerator			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6054	76.8	76.8	76.8
	No	1825	23.2	23.2	100.0
	Total	7879	100.0	100.0	

The results presented in Table 3 indicate that over 85.5% of the population are generally in good health without any disabilities. This includes seeing, hearing, communicating, walking, remembering and self-care. These results don't come as a surprise given that over 53% of the population in the district are women and the median age is 22 while largest share of population is within the infants and children (0-14 years) age category with a total number of 408 000 or 34.2% of the total population (Cooperative Governance & Traditional Affairs, 2020). Self-care was the lowest relative to other health indicators with 76.7%.

Table 3: SDG 3 Good Health

Seeing					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. No difficulty	82848	84.8	85.3	85.3
	2. Some difficulty	5554	5.7	5.7	91.0
	3. A lot of difficulty	859	.9	.9	91.9
	4. Cannot do at all	284	.3	.3	92.2
	5. Do not know	104	.1	.1	92.3
	6. Cannot yet be determined	4698	4.8	4.8	97.2
	9. Unspecified	2759	2.8	2.8	100.0
	Total	97106	99.4	100.0	
Missing	System	545	.6		
Total		97651	100.0		
Hearing					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. No difficulty	86333	88.4	88.9	88.9
	2. Some difficulty	2519	2.6	2.6	91.5
	3. A lot of difficulty	439	.4	.5	92.0
	4. Cannot do at all	274	.3	.3	92.2
	5. Do not know	114	.1	.1	92.4
	6. Cannot yet be determined	4607	4.7	4.7	97.1
	9. Unspecified	2820	2.9	2.9	100.0
	Total	97106	99.4	100.0	
Missing	System	545	.6		
Total		97651	100.0		
Communication					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. No difficulty	85624	87.7	88.2	88.2
	2. Some difficulty	1880	1.9	1.9	90.1
	3. A lot of difficulty	627	.6	.6	90.8
	4. Cannot do at all	907	.9	.9	91.7
	5. Do not know	315	.3	.3	92.0
	6. Cannot yet be determined	4762	4.9	4.9	96.9
	9. Unspecified	2991	3.1	3.1	100.0
	Total	97106	99.4	100.0	
Missing	System	545	.6		
Total		97651	100.0		

Walking or climbing stairs					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. No difficulty	85804	87.9	88.4	88.4
	2. Some difficulty	2422	2.5	2.5	90.9
	3. A lot of difficulty	702	.7	.7	91.6
	4. Cannot do at all	794	.8	.8	92.4
	5. Do not know	203	.2	.2	92.6
	6. Cannot yet be determined	4551	4.7	4.7	97.3
	9. Unspecified	2630	2.7	2.7	100.0
	Total	97106	99.4	100.0	
Missing	System	545	.6		
Total		97651	100.0		
Remembering / Concentrating					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. No difficulty	82982	85.0	85.5	85.5
	2. Some difficulty	3412	3.5	3.5	89.0
	3. A lot of difficulty	1227	1.3	1.3	90.2
	4. Cannot do at all	1110	1.1	1.1	91.4
	5. Do not know	442	.5	.5	91.8
	6. Cannot yet be determined	5271	5.4	5.4	97.3
	9. Unspecified	2662	2.7	2.7	100.0
	Total	97106	99.4	100.0	
Missing	System	545	.6		
Total		97651	100.0		
Self Care					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. No difficulty	74478	76.3	76.7	76.7
	2. Some difficulty	2566	2.6	2.6	79.3
	3. A lot of difficulty	1001	1.0	1.0	80.4
	4. Cannot do at all	3671	3.8	3.8	84.2
	5. Do not know	862	.9	.9	85.0
	6. Cannot yet be determined	11619	11.9	12.0	97.0
	9. Unspecified	2909	3.0	3.0	100.0
	Total	97106	99.4	100.0	
Missing	System	545	.6		
Total		97651	100.0		

The Limpopo province has a negligible number of medical facilities, particularly in the Sekhukhune region, where there is typically 1 clinic for every 17 000 people and about 97 500 people per hospital (Cooperative Governance & Traditional Affairs, 2020). The District has 76 clinics overall, 5 district hospitals, and 2 regional hospitals as seen in figure 7. Some areas in the district don't have access to healthcare, thus a mobile clinic visits those communities once a week or twice a month to provide care (Cooperative Governance & Traditional Affairs, 2020). These facilities offer communities a full range of healthcare services.

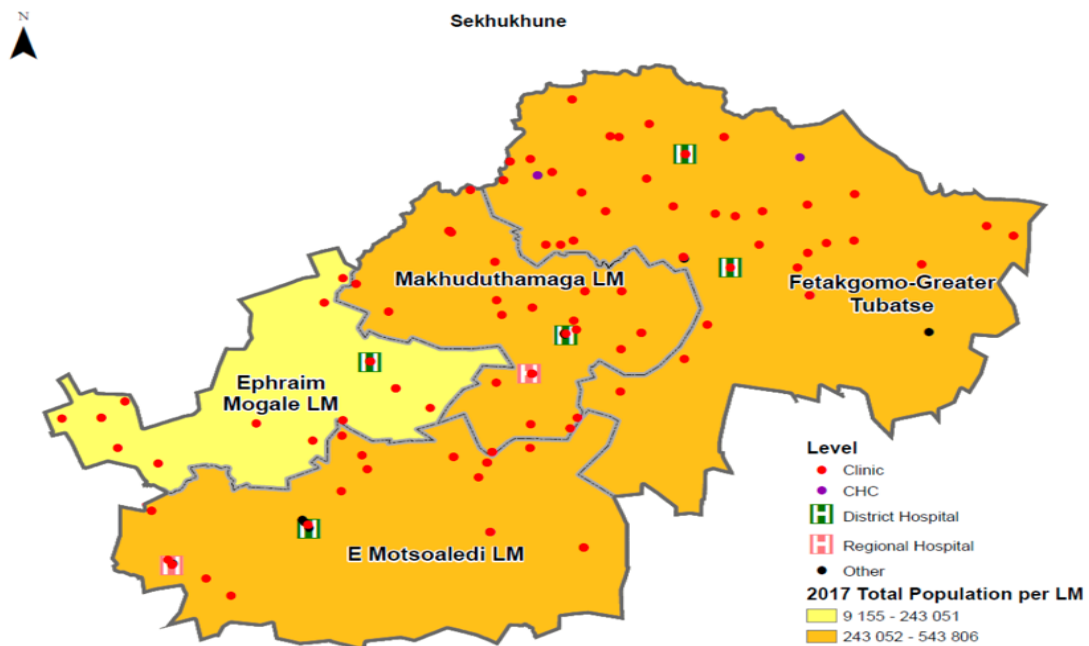


Figure 6: Distribution of Healthcare facilities (Cooperative Governance & Traditional Affairs, 2020)

The level of education in Sekhukhune district remains a challenge with only 27.1% of the population aged over 20 years having a qualification equivalent to a matric and above while over 21.3% of the population have no form of education as seen in Table 4. According to the (WHYLKEN et al., 2022), most pupils in South African schools, especially those in rural areas, experience poverty as a result of the fact that most parents are jobless and reliant on social assistance. The government has been successful in giving monies, such as social grants and feeding programs in schools, in order to increase access to education for those in need, usually the underprivileged populations from rural areas. There are still obstacles that keep some pupils from attending school regularly or even at all, despite the funding and access that have been provided.

A report by 2030 Reading Panel, (2023) found that since the Covid epidemic, fewer primary school students can read for comprehension, and the majority of second graders are not familiar with the alphabet. However, there is no national reading plan, proper budget, reliable reporting, or progress on putting necessary interventions into practice even though there is a literacy crisis.

On a national level, the Depart of Basic Education (DBE) is not paying attention to the reading for meaning crises. The investigation concludes that there is no National Reading Plan, despite assertions to the contrary from the DBE, and that the most recent "National Reading Strategy" was released in 2008. The Early Grade Reading Assessment has been given a budget of R11 million in the 2022 Education Budget Vote directed towards 18 schools, only nine schools were reached by the DBE (2030 Reading Panel, 2023). This further exacerbates challenges that are experienced by rural districts such as Sekhukhukhune.

Table 4: SDG 4 Quality Education

		Highest level of education			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0. Grade 0	150	.3	.3	.3
	1. Grade 1/sub A	423	.8	.8	1.1
	2. Grade 2/sub B	645	1.3	1.3	2.4
	3. Grade 3/std 1/ABET 1/Kha Ri Gude, SANLI	991	2.0	2.0	4.4
	4. Grade 4/std 2	1102	2.2	2.2	6.6
	5. Grade 5/std 3/ABET 2	1221	2.4	2.4	9.1
	6. Grade 6/std 4	1266	2.5	2.5	11.6
	7. Grade 7/std 5/ABET 3	1926	3.8	3.9	15.5
	8. Grade 8/std 6/form 1	2880	5.7	5.8	21.2
	9. Grade 9/std 7/form 2/ABET 4	2882	5.7	5.8	27.0
	10. Grade 10/std 8/form 3	5226	10.4	10.5	37.4
	11. Grade 11/std 9/form 4	6698	13.3	13.4	50.8
	12. Grade 12/std 10/form 5	10443	20.7	20.9	71.7
	13. NTC I/N1/NIC/(V) Level 2	102	.2	.2	71.9
	14. NTC II/N2/NIC/(V) Level 3	96	.2	.2	72.1
	15. NTC III/N3/NIC/(V) Level 4	142	.3	.3	72.4
	16. N4/NTC 4	123	.2	.2	72.6
	17. N5/NTC 5	102	.2	.2	72.9
	18. N6/NTC 6	205	.4	.4	73.3
	19. Certificate with less than Grade 12/std 10	53	.1	.1	73.4
	20. Diploma with less than Grade 12/Std 10	74	.1	.1	73.5
	21. Certificate with Grade 12/std 10	428	.8	.9	74.4
	22. Diploma with Grade 12/Std 10	638	1.3	1.3	75.7
	23. Higher Diploma	590	1.2	1.2	76.8
	24. Post Higher Diploma (Masters, Doctoral diploma)	85	.2	.2	77.0
	25. Bachelors degree	304	.6	.6	77.6
	26. Bachelors degree and Post graduate diploma	110	.2	.2	77.8
	27. Honours degree	154	.3	.3	78.1
	28. Higher degree (masters, doctorate)	86	.2	.2	78.3
	29. Other	102	.2	.2	78.5
	98. No schooling	10741	21.3	21.5	100.0
	Total	49988	99.2	100.0	
Missing	System	387	.8		
Total		50375	100.0		

Table 5 indicates the gender representation with a focus on female councillors in the Sekhukhune district municipality. As a result of established patriarchal ideas regarding women's political presentation, a review of gender outcomes of the 2011 local elections shows that women performed better at proportional representation level as opposed to the ward (Hicks & Buccus, 2012). Results issued by the Independent Electoral Commission (IEC) on the 2021 local government elections indicate that only 37% of the councillors were women, whereas 63% of the elected officials were men. Out of the 5 975 male councillors elected, 2 712 were chosen from PR lists, 3 214 were chosen from wards, and 49 were independents running in wards. In contrast, of the 3 498 female councillors elected, 2 294 were chosen from PR lists, 1 202 were chosen from wards, and 2 more were independents who ran in wards (Coopoo, 2021). These figures show that a legal quote for gender representation is necessary to ensure transformation within communities, leaving parity in representation to political parties alone is not the solution.

Table 5: SDG 5 Gender Equality (Electoral Commission of South Africa (IEC), 2021)

Province	Municipality	Party	Ward \ List Order	Surname	Full Name	SeatType	Gender	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(1)			DC "40%"	F	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(2)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(3)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(4)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(5)			DC "40%"	F	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(6)			DC "40%"	F	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(7)			DC "40%"	F	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(8)			DC "40%"	F	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(9)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(10)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(11)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(12)			DC "40%"	F	
Limpopo	DC47 - Sekhukhune	AFRICAN NATIONAL CONGRESS	PR(13)			DC "40%"	F	
Limpopo	DC47 - Sekhukhune	BOLSHEVIKS PARTY OF SOUTH AFRICA	PR(1)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	DEMOCRATIC ALLIANCE	PR(1)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	ECONOMIC FREEDOM FIGHTERS	PR(1)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	ECONOMIC FREEDOM FIGHTERS	PR(2)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	ECONOMIC FREEDOM FIGHTERS	PR(3)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	ECONOMIC FREEDOM FIGHTERS	PR(4)			DC "40%"	M	
Limpopo	DC47 - Sekhukhune	SOCIALIST AGENDA OF DISPOSSESSED AFRICANS	PR(1)			DC "40%"	M	
					Calculation	Male	13	68,4%
						Female	6	31,6%

Table 6 indicates that 37.6% of the population has access to water in their yards/dwelling while only 4.5% of the population has access to a flushing toilet or chemical toilet. Several families in the district are receiving Ventilated Improved Pit latrines (VIPs) as part of the district's extensive sanitation initiative. The number of houses in the district without any hygienic toilets was 188 000 in 2008; this number increased yearly at a rate of 0.57% to 199 000 in 2018 (Cooperative Governance & Traditional Affairs, 2020).

An analysis of water provision by Moagi (2021) on Sekhukhune district water delivery found that the water sources available are insufficient to serve all of the municipality's population, which has a substantial impact on the municipality's efforts to distribute water. Locals have voiced their anger through violent service delivery protests in various wards of the municipality. Water challenges in the Sekhukhune district are not new nor unique to other municipalities in South Africa where some of the challenges include dried-up water sources, unlawful connections, contractor projects that aren't finished, financial limitations, and inadequate maintenance planning. Lack of water sources, inadequate upkeep, a lack of knowledge and experience among the staff in the water department, and a lack of funding are the main problems within the district (Moagi, 2021).

Table 6: SDG 6 Clean water and sanitation

Access to piped water					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Piped (tap) water inside the dwelling	555	7.0	7.0	7.0
	Piped (tap) water inside the yard	2409	30.6	30.6	37.6
	Piped (tap) water on community stand: distance less than 200m from dwelling	1775	22.5	22.5	60.1
	Piped (tap) water to community stand: distance less than 200m and 500m from dwelling	594	7.5	7.5	67.7
	Piped (tap) water to community stand: distance less than 500m and 1000m from dwelling	328	4.2	4.2	71.8
	Piped (tap) water on community stand: distance greater than 1000m (1 km) from dwelling	158	2.0	2.0	73.9
	No access to piped (tap) water	2060	26.1	26.1	100.0
	Total	7879	100.0	100.0	

Toilet facilities					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	262	3.3	3.3	3.3
	Flush toilet (connected to sewerage system)	213	2.7	2.7	6.0
	Flush toilet (with septic tank)	69	.9	.9	6.9
	Chemical toilet	71	.9	.9	7.8
	Pit latrine with ventilation (VIP)	1001	12.7	12.7	20.5
	Pit latrine without ventilation	6069	77.0	77.0	97.5
	Bucket latrine	55	.7	.7	98.2
	Other	139	1.8	1.8	100.0
Total		7879	100.0	100.0	

A significant portion of the population in the Sekhukhune district have access to electricity with over 88.5% of the population using it for lighting. Table 7 indicates that over 54.7% use electricity for either cooking, heating or lighting. Electricity in the area is mostly used for lighting while heat is the least of the uses as this is mostly generated through wood. The 2016 community survey indicated that 87% of the population had access to electricity while only 6% doesn't have access to electricity (Cooperative Governance & Traditional Affairs, 2020).

Table 7: SDG 7 Affordable and clean energy

Energy or fuel for cooking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	6	.1	.1	.1
	Electricity	3429	43.5	43.5	43.6
	Gas	67	.9	.9	44.4
	Paraffin	228	2.9	2.9	47.3
	Wood	3764	47.8	47.8	95.1
	Coal	319	4.0	4.0	99.2
	Animal dung	50	.6	.6	99.8
	Solar	16	.2	.2	100.0
	Total	7879	100.0	100.0	

		Energy or fuel for heating			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	None	933	11.8	11.8	11.8
	Electricity	2532	32.1	32.1	44.0
	Gas	61	.8	.8	44.8
	Paraffin	89	1.1	1.1	45.9
	Wood	3646	46.3	46.3	92.2
	Coal	561	7.1	7.1	99.3
	Animal dung	47	.6	.6	99.9
	Solar	10	.1	.1	100.0
	Total	7879	100.0	100.0	

		Energy or fuel for lighting			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	None	10	.1	.1	.1
	Electricity	6969	88.5	88.5	88.6
	Gas	7	.1	.1	88.7
	Paraffin	40	.5	.5	89.2
	Candles	812	10.3	10.3	99.5
	Solar	41	.5	.5	100.0
	Total	7879	100.0	100.0	

In the graph below (figure 7), which show the number of households without an electrical connection over time, it can be observed that in the Sekhukhune District Municipality, there were 48 100 such households but that number dropped by 8.66% annually to 19 500 in 2018.

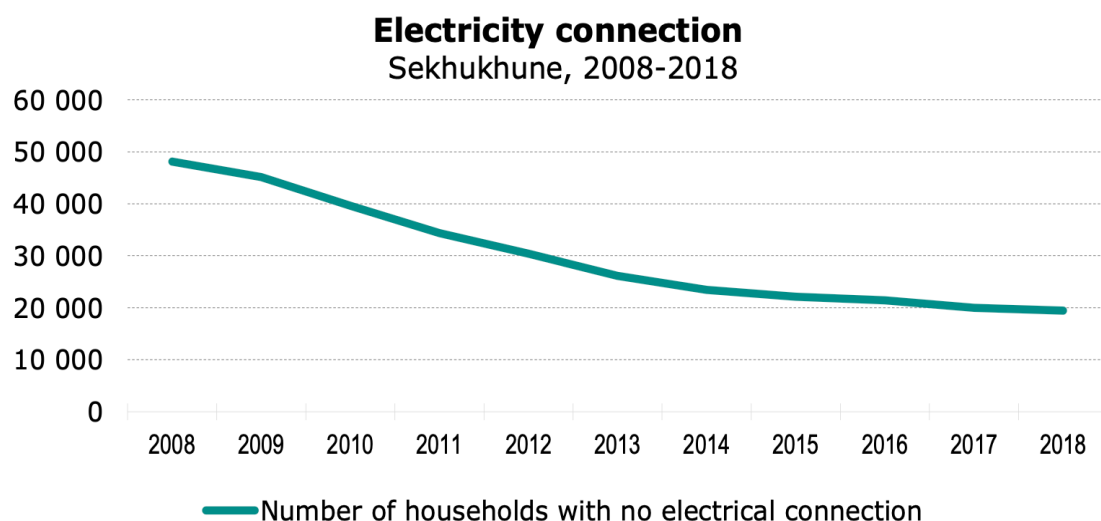


Figure 7: Electricity Connection (Cooperative Governance & Traditional Affairs, 2020)

Table 8 depicts employment figures in the district with 27.6 % of the population fitting the Decent work indicator. This is a combination of employed residents and discouraged work seekers. Concerns around employment remain as over 51.3% of the population is not economically active. Kyei & Gyekye, (2012) argue that there is little correlation between GDP and unemployment, regardless of how much the Limpopo economy grows, the province's current dire unemployment status will not change. Their study found that there is little correlation between youth unemployment in Limpopo and the male population, instead, the research shows that unemployment in Limpopo is highly and favourably predicted by female gender, advanced age, and a lack of secondary education (Kyei & Gyekye, 2012). Additionally, their research demonstrates that unemployment has large negative correlations with middle age, having a degree, and ethnicity (non- Africans). This requires the current secondary school students to successfully complete their matric or they will always contribute to the pool of a high unemployed population in the province.

Table 8: SDG 8 Decent Work

		Official employment status			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. Employed	11179	11.4	20.3	20.3
	2. Unemployed	11696	12.0	21.2	41.5
	3. Discouraged work-seeker	4023	4.1	7.3	48.7
	4. Other not economically active	28288	29.0	51.3	100.0
	Total	55186	56.5	100.0	
Missing	System	42465	43.5		
Total		97651	100.0		

The proportion of residents without any formal education fell between 2009 and 2019, however the proportion of those with merely a matriculation rose from 95,252 to 147,666 over the same period as seen in figure 8. People with a "matric and a certificate/diploma" climbed from 20 976 in 1999 to 38 566 in 2019. People with a "matric and a Bachelor's" degree also increased. Only 4% of people in the population are college graduates, this is probably going to limit the District's capacity to considerably improve its socioeconomic situation in the short to medium-term (Cooperative Governance & Traditional Affairs, 2020).

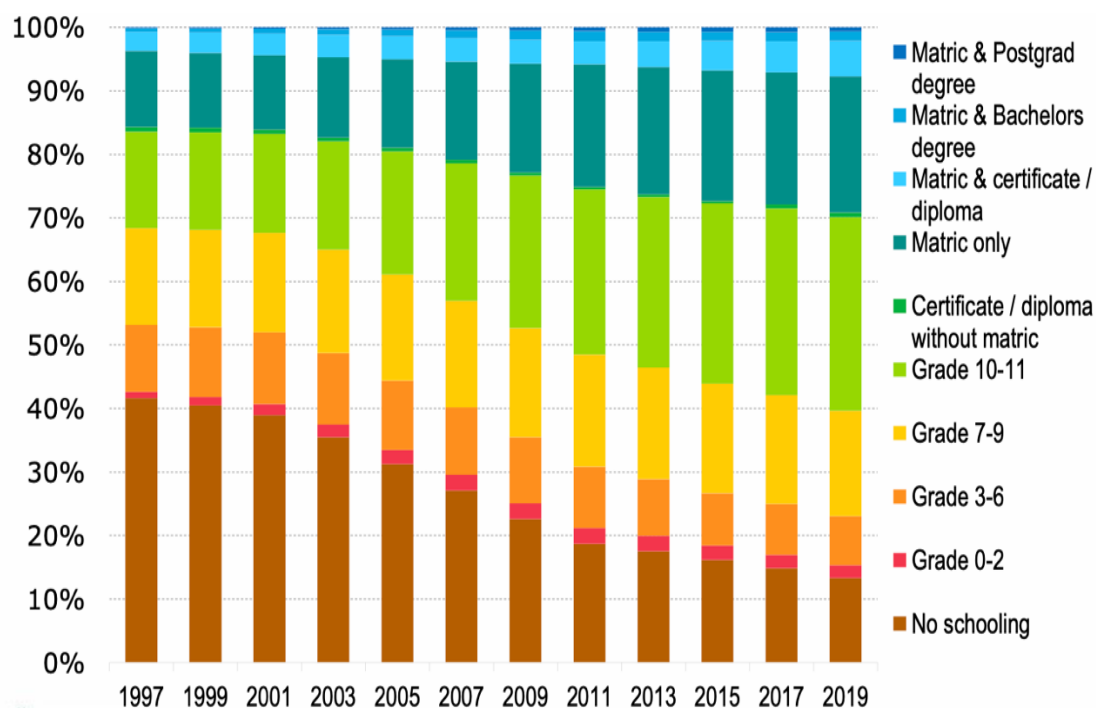


Figure 8 Progress in Education (Cooperative Governance & Traditional Affairs, 2020).

Over 92% of the population has a formal house or brick/concrete block structure on a separate stand or yard as presented in Table 9. Apartheid spatial planning was instrumental in influencing these trends as a significant number of homelands were self-governed where residential land was received.

Table 9: SDG 11 Sustainable cities and communities

Type of main dwelling - main					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	House or brick/concrete block structure on a separate stand or yard	7162	90.9	90.9	90.9
	Traditional dwelling/hut/structure made of traditional materials	339	4.3	4.3	95.2
	Flat or apartment in a block of flats	14	.2	.2	95.4
	Cluster house in complex	12	.2	.2	95.5
	Town house (semi-detached house in complex)	2	.0	.0	95.6
	Semi-detached house	8	.1	.1	95.7
	House/flat/room in back yard	47	.6	.6	96.3
	Informal dwelling/shack in back yard	104	1.3	1.3	97.6
	Informal dwelling/shack NOT in back yard, e.g. in an informal/squatter settlement or on farm	148	1.9	1.9	99.5
	Room/flatlet on a property or a larger dwelling/servants'quarters/granny flat	14	.2	.2	99.6
	Caravan or tent	2	.0	.0	99.7
	Other	27	.3	.3	100.0
	Total	7879	100.0	100.0	

Despite internet being a key form of communication in today world, only 18.6% of the population in Sekhukhune have access to some form of internet access as presented in Table 10.

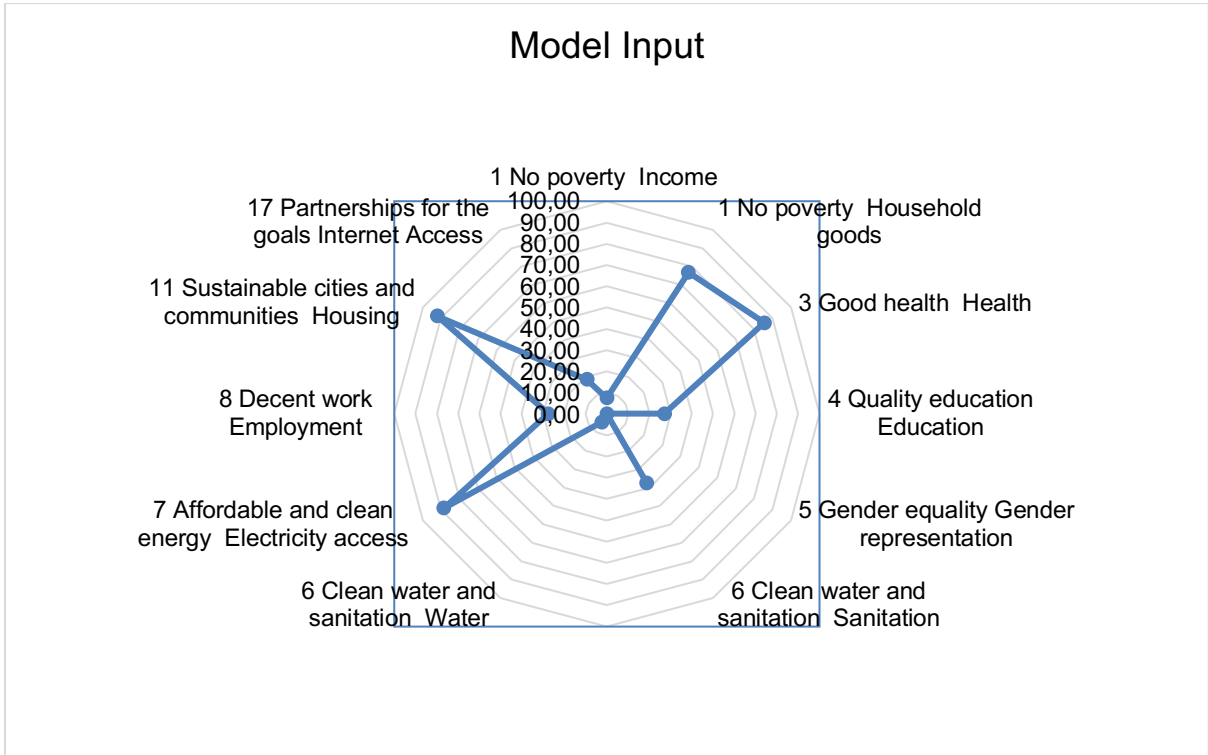
Table 10: 17 Partnership for the goals

Access to internet					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	From home	139	1.8	1.8	1.8
	From cell phone	962	12.2	12.2	14.0
	From work	80	1.0	1.0	15.0
	From elsewhere	282	3.6	3.6	18.6
	No access to internet	6416	81.4	81.4	100.0
	Total	7879	100.0	100.0	

Table 11 presents the overall well-being indicator for Sekhukhune district municipality taking into account the 11 indicators that were analysed in the previous sections. The overall score for the district is X , which is on lower end of the spectrum. The average score for South Africa is 5.56 while the average for local municipalities of mining host communities is 6.54 (Cole & Broadhurst, 2021). This data indicates that significant development is required for the district.

Table 11: Well-Being Indicator

SDG	Dimension	Indicator	Model Input
1. No poverty	Income	% Households with income more than R19,600/year	7.40
	Household goods	% Households that own a refrigerator	76.80
2. Zero hunger	Food security	Not defined due to lack of community level data	
3. Good health	Health	% Population without a disability (seeing, hearing, communicating, walking/climbing stairs, remembering/concentrating, or self- care)	85.50
4. Quality education	Education	% Adults (age 20 or older) with NQF4 qualification (Grade 12, NTC3)	27.10
5. Gender equality	Gender representation	% Female representation in local government (councillors)	31,6
6. Clean water and sanitation	Sanitation	% Population with piped water in their dwelling or yard	37.60
	Water	% Population with access to a flush toilet or chemical toilet	4.50
7. Affordable and clean energy	Electricity access	% Population with access to electricity	88.50
8. Decent work	Employment	% Labour force (including discouraged jobseekers) employed	27.60
9. Industry, innovation, and infrastructure	Access to transport	Not defined due to lack of community level data	
10. Reduce inequality	Income inequality	Not defined due to lack of community level data	
11. Sustainable cities and communities	Housing	% Population in formal housing	92.00
16. Peace, justice, and strong institutions	Safety	Not defined due to lack of community level data	
17. Partnerships for the goals	Internet Access	% Population with access to internet	18.60
Well-being Indicator			4,23



4.3. OVERVIEW OF QUALITATIVE DATA

This section of this chapter will focus on the qualitative analysis that was generated through semi structured interviews of municipality development practitioners, community members from Sekhukhune District and practitioners tasked with development within mining companies operating along the Eastern Limb. The responses from the semi structured interviews were classified into four key thematic areas that provide a link between policy and welling being of communities. The themes focus on the *Understanding of SDGs, Socio-economic challenges, Understanding of Mining Policy and Indicators and model inputs.*

4.3.1. UNDERSTANDING OF SDGS

The primary reason behind this theme was to determine whether government, mining companies and communities understand SDGS and the main purpose behind their formation. This theme would further assess whether there could be synergies around the implementation of these development objective amongst stakeholders. Part of the objective of this study was to understand the role of mining companies, communities and municipalities in the achievement of the 2030 SDG goals which includes the eradication of poverty,

Over 90% of the participants of the interview indicated their familiarity and understanding of the SDGs. It was highlighted that SDGs are guidelines that advise various stakeholders on the minimum requirements and measures for societal development across the world. There is a common understanding that the goals were developed by the United Nations and are a social compact between business, government and civil society towards developing thriving communities by 2030. It was emphasised that these goals are intended to transform communities and close some of the socio economic development challenges related to inequality. Other respondents considered SDGs as drivers for sustainable development in mining communities post mining, this includes allowing stakeholders to have tangible benefits as a result of mining. SDGs in mining can be used to drive collaborative development.

SGDs in the South African context find their expression in the National Development Plan (NDP). By 2030, the NDP wants to end poverty and lessen inequality. The plan states that in order to achieve these objectives, South Africa must mobilize the energy of its people, develop an inclusive economy, build capabilities, strengthen the state's capacity, and encourage leadership and partnerships across society (The Presidency Republic of South Africa, 2015). The development goals are generally not known word for word however the more common ones to mining such education, health, poverty, decent work and climate actions are well understood together with the principles in which they are applied.

It was acknowledge that communities, mining companies and governments each have a role to play in the implementation and realisation of the 2030 SDG goals. Context was emphasised as a critical pillar to the effective interpretation and application of SDGs, *“what should I be doing within this framework or these goals to ensure that we achieve the social license to operate, it cannot just be done for global compliance at the expense of address challenges in my own back yard.”*

Government, particularly local government in mining towns are responsible for creating environments that are conducive for investment, this includes providing basics infrastructure and services to residents. IDPs play a critical role in ensuring that SDGs goals are continuously realised, the quality of the IDPs and consultations

remains a critical process. It was highlighted that SDGs finds expression in the Medium-Term Strategic Framework (MTSF) and the District Development Model (DDM) which forms part of the critical development of communities. Government has a responsibility of ensuring that there is adequate capacity and competency at a local level to drive development. The ability of local government to take over projects handed over by the private sectors remains a key responsibility to ensure long term sustainability.

Mining companies often impose what they believe communities require from a development perspective. Emphasis was placed on the need to ensure co-creation in the development of initiatives aimed at sustainable development. Mining companies have a responsibility of ensuring that they comply with global standards and norms around development while aligning these deliverables to local needs. Mines need to ensure that their development programmes align to IDPs as these capture both government and community needs. Other participants argue that mining companies have the responsibility of investing in capacity development at local government as opposed to handing over projects as this will not yield the intended long term development. It was flagged that mining companies have a responsibility of ensuring that they apply the SDGs with a forward look in mind. Current efforts on renewable energy was raised as an example where mining houses could capacitate communities with skills and infrastructure that would be able to allow them to capitalise on this emerging economy.

Communities have a responsibility of ensuring that they have a single coherent voice to articulate their development needs. Coherent voices are critical in context setting of development needs, this often becomes a challenge when conflicting needs emerge and external stakeholders are required to address these. One of the participants indicated that *“the community committees have the role of identifying the needs of the community so that they can advocate for those needs that are top priority in their minds.”* Others indicated that it is the responsibility of communities to hold local government and mining companies to account on the implementation of initiatives aimed at achieving the 2030 SDGs.

4.3.2. SOCIO-ECONOMIC CHALLENGES

This theme was developed to discover and investigate two crucial ideas: In order to address socio-economic challenges, it is first necessary to identify the district's major socioeconomic problems and their underlying causes. Secondly, to objectively measure these social challenges and the progress being made to address them. The questions also sought to identify whether there were specific indicators in place to measure socio economic issues in communities.

Participants highlighted that the socio-economic challenges in communities are in a dire state and this is a common course across South Africa where local government is almost non-existent based on the provision of basic services and needs. Its argued that we are the most unequal society with the social issues being classified as a *Triple Threat*. Education, unemployment and inequality were flagged as the biggest socio-economic challenges experienced by communities in the Sekhukhune area. These socio-economic challenges were well understood by all stakeholders however implementation of initiatives that optimally address them remains a gap. The problem does not lie in the understanding of the socioeconomic issues in the district but the problems but mainly relates to solutions and implementation of these interventions.

Mining companies are seen as significant contributor to the rapid escalation of socioeconomic challenges in mining area. A significant influx of people in the Sekhukhune district has been influenced by the increasing mining activity which in turn has an impact on local governments ability to expand infrastructure in line with the excessive growth. The presence of mining operations in the area is seen as a deterrent for learners to progress with their education beyond grade 10 or standard 8 as most of the learners in the areas drop out in pursuit of employment opportunities at the mines. The minimum requirement of a grade 10 to gain employment in the mining operations creates a wicked problem as the area is seen a poorly skilled while poverty is driving youth to seek employment.

4.3.3. UNDERSTANDING OF MINING POLICY

The third theme was generated to establish whether communities are benefiting from mining activities as proposed in policy in line with objective 2 of the research. Minerals Policy in South Africa is drafted such that the state remains the custodians of the minerals while ensuring the benefits are realised by local communities.

There was clear understanding of the policies applicable to mining and community development. The process of compiling SLPs including the consultation and its relationship to the IDPs were well understood by all interview participants. SLPs and mining empower policies as they currently stand were believed to be adequate to foster long term sustainability. Respondents believed the policy is clear and alignment between SLP and municipal development plans was well documented including how IDPs should be considered when developing SLP projects. It was highlighted that challenges do not lie in the policy but rather the implementation of the policy requirements;

“Social and Labour plans need to be developed. They need to pick projects from the municipalities IDPs. The unfortunate part is when the select projects are weak or unsustainable, then you will not see the desired impact.”

A durable partnership for development between mining operations and the community near an operation can be established during the course of the SLP's five-year cycle. The results of a sincere and reliable developmental collaboration between local communities, government and mining companies may lead to development outcomes that could direct the mining company's operations in the direction of a trajectory that is sustainable (Ndaba, 2016). Community division, tick box approach to the implementation and capacity constraints at local government were flagged as the major issues that affect the assessment of were or not mining empowerment policies area effective;

“Social and Labour Plans are sometimes believed to not work as mining companies decide to ignore the SLP commitments by not implementing them or if they are implemented, they partially incomplete project. A typical example includes the development of roads, instead of making it solid road, they are putting the gravel road and the next thing six months later the gravel road was wiped out by the rain.”

4.3.4. INDICATORS AND MODEL INPUTS.

A clear of key issues and focus areas from stakeholders would go a long way in understanding collaborative opportunities that could assist in improving sustainable development in mining communities. This theme is aimed at providing key focus areas that could be considered to assist with the continued improvement of well-being in mining communities.

Poverty, education, unemployment were a common theme amongst all of the interview participants, these mainly relate to SDG1, SDG 4 and SDG 8. Willingness to collaborate was clearly demonstrated during the discussions however, more work would be required to create common purpose and alignment. The number of young people in the community who remain discouraged by the current socioeconomic environment including unemployment remained a deep concern and anchor point for all stakeholders. Some of the proposal put forth which don't necessarily place the burden of development on mines but rather focus on economic diversification at a local level include:

- “We can invest more in agriculture as a labour-intensive industry and the energy sector which is a main priority of the government right now and there is demand of these skills. I think the best way to address sustainability is to invest where there is new economic opportunities for our communities other than the mine.” Skills transfer for local communities around the new energy economy should be considered.
- “Education is the most important thing that should be implemented, we should have access to it, and this could include access to universities, colleges and leadership programs. Access to everything that has to do with education, if you keep yourself busy with education then you won’t wait for handouts. Education can be key to fight poverty.”
- “Poverty alleviating projects aimed at sustainability and the provision of water, health and education should be the key focus. Mining companies should ensure that we reduce our environmental impacts through decarbonisation while ensuring that these initiatives create sustainable improvements in communities.”

4.4. FINDINGS AND THE DEVELOPMENT THEORY

The outcomes of the quantitative research indicates that there has been limited impact on the efforts related to development in the district. Using the district census data has helped support the current trends in Development theory where the national growth trends are not seen as the sole indicators. If one were to only look at the indicators at a national or provincial level, the impact of mining would have been presented in good light however low level data is presenting an alternative view. The quantitative data and overall wellness indicator of 4.23 highlights that the development interventions are not improving the quality of life in the region as people still don’t have the freedom of choice due to their circumstance i.e. Education level, internet access, employment etc.

The qualitative findings indicates that there is a disconnect between the solutions that are being implemented and the impacts on the intended beneficiaries. Some of the social change initiatives are seen as imposed which further suppose the questions around which modernisation are we working today in the modern day. Current

challenges such as globalisation brings into question Western definition of development. This requires alignment on defining true development and key drivers.

4.5. CHAPTER SUMMARY

Chapter 4 presented and discussed the results of the study including various findings of the mixed method approach. The quantitative and qualitative approaches used in this study illustrated the failure of SLPs to improve the well-being of mining communities despite the significant contribution to the broader South African economy. The outcomes of the wellness indicator where critical measures such as income, education and decent work was well below 30% indicating that a majority of the population continues to live well below the SDG targets. These challenges are further support by the outcomes of the interviews which reflect the lived experience of the dire socioeconomic challenges in Sekhukhune district. Despite the presence of mining activities, poverty and unemployment remain a significant challenge in the district with all interview participants raising the continued concern around the impact of this on youth in the area..

CHAPTER 5: CONCLUSION AND RECOMMENDATION

5.1. INTRODUCTION

The study's findings are presented in this chapter in relation to the study's objectives and problem statement. An overview of the findings in regard to the study's goals is provided in Section 5.2. In Sections 5.3 recommendations of the study are presented with possible future work proposed in Section 5.4.

5.2. CONCLUSION

The objectives of this study were to apply the SDG Well-Being indicator developed by Cole & Broadhurst, (2021) at district level to determine whether mining is benefiting local communities in Sekhukhune district as one of the newer mining regions in South Africa. The study sought to apply a mixed method to capture the lived experience of people in the region. Part of understanding the lived experience included identify factors that contribute to poor socio-economic challenges despite the presence of mining operations in the district and articulate the role of mining companies and municipalities in addressing these through 2030 SDG goals. SDGs were a critical element to this study as that remains most significant global compact between governments, civil society, and business.

Following the application of a number of SDG indicators in Sekhukhune district, the research found that the district performed fairly well on SDG 3 (Health), SDG 7 (Electricity Access) and SDG 11 (Housing) with scores of over 85%. The blessing and curse of the district is the population demographic with 53% of the population in the district being women and the median age is 22 while largest share of population is within the infants and children. This forces stakeholders to look at the long-term impact of sustainability initiatives as most of the population being unemployed and having a low education level. The overall well-being score of the district was 4.23, this is lower than average well-being of South Africa at 5.65 and other mining towns which range between 6,13 and 6,68 (Cole & Broadhurst, 2021).

The interviews found that participants acknowledge that communities, mining companies and governments each have a role to play in the implementation and realisation of the 2030 SDG goals. The context in which SDGs are applied becomes critical pillar to ensure that the initiatives aimed at attain the goals are realised. Although mining policy adequately covers community development requirements, the challenge remains on how these projects can be applied in sustainable manner. It was argued that the challenges don't lie in the policy but rather how sustainable development is defined in relation to the policy. Education, unemployment and inequality were raised as the biggest socio economic challenges in the district. Questions remain on whether the current 5 year cycle of SLP implement would adequately address these issues as they require a long term plan.

The outcomes of Chapter 4 indicated that the alternative hypothesis of the study is the correct one. The presences of mining companies in the Sekhukhune District have deteriorated the quality of living of communities as measured through the various SDGs. This deterioration can be attributed to ineffective policies and collaboration between stakeholders at local government. Impact of sustainable development initiative are ineffective due to the approach in implementation and misalign on focus areas that could be jointly implemented despite the presence of IDPs.

5.3. RECOMMENDATIONS

Alignment on the definition of impact particularly from SLPs remains a significant challenge in mining, the continued use of SDG indicators as presented in this study provides an opportunity to enhance monitoring and reporting on SLP implementation in South Africa while linking them to government and company SDG reporting. It is recommended that mining companies and local governments starts using the proposed qualitative monitoring using census data to start tracking development progress. SLPs have been used to conduct a number of mining socioeconomic development initiatives, many of which have failed to live up to the aspirations of the mining community who are direct beneficiaries. Using the SDG indicators aligns with argument (Ndaba, 2016) for stakeholder to Results-Based M&E methodologies that can lead to enhanced project selection, planning, and execution for mine community development programs.

It is noted that there are number of socioeconomic challenges within the Sekhukhune district however it is recommended that 3 areas are selected as a priority focus to ensure that there is long term sustainable development. This approach should be used based on the principles of Development Theory were a collective rallies behind a few initiatives that will drive significant social change. Education is a key priority in the areas, mainly influenced by the young population and the argument around ensuring that this age demographic successfully completes grade 12 to effectively reduce the poverty cycle. Education is closely linked to Internet access, this is part of SDG 17 around partnerships. With only 19% of the population accessing internet, it is critical that connectivity in the area is enhanced including at schools, this would ensure that communities are included in the fourth industrial evolution while ensuring that knowledge is made available through internet access. The combination of education and internet access aligns with Sen, (1999) argument that true development should equip and afford people the freedom of choice. Employment was raised as a key challenge in the area, however the most optimal way to address this while insuring sustainability is through infrastructure development. With the migrations patterns driven by mining activity, it is recommended that focus is placed on infrastructure investment which will create employment opportunity but also support the municipalities deliverables.

5.4. CHAPTER SUMMARY

The conclusion of the research findings highlights that there are significant socioeconomic challenges in mining communities, but this cannot be solely limited to ineffective policy. SDGs present an opportunity to not only measure development but further provide collaborative areas that mining companies, communities and local government can focus on. The chapter proposed key considerations that could be considered to ensure that the well-being of mining communities around Sekhukhune is improved while ensuring long term sustainability.

REFERENCES

2030 Reading Panel. (2023). *BACKGROUND REPORT EMBARGOED UNTIL MIDNIGHT ON 7 FEB 2023*.

Butler, J., Rotberg, R., & Adams, J. (1977). *The Black Homelands of South Africa: The Political and Economic Development ...*
<https://books.google.co.za/books?id=YTJmnzk9B7YC&printsec=frontcover#v=onepage&q&f=false>

CoGTA. (2020). *PROFILE: SEKHUKHUNE DISTRICT*.

Cole, M. J., & Broadhurst, J. L. (2020). Mapping and classification of mining host communities: A case study of South Africa. *Extractive Industries and Society*, 7(3), 954–964. <https://doi.org/10.1016/j.exis.2020.06.007>

Cole, M. J., & Broadhurst, J. L. (2021). Measuring the sustainable development goals (SDGs) in mining host communities: A South African case study. *Extractive Industries and Society*, 8(1), 233–243. <https://doi.org/10.1016/j.exis.2020.11.012>

Cooperative Governance & Traditional Affairs. (2020). *PROFILE: SEKHUKHUNE DISTRICT*.

Coopoo, S. (2021, November). *Women's voices fade after local government elections - The Mail & Guardian*. Mail and Guardian. <https://mg.co.za/opinion/2021-11-26-womens-voices-fade-after-local-government-elections/>

Department of Mineral Resource and Energy. (2010). *GUIDELINE FOR THE SUBMISSION OF A SOCIAL AND LABOUR PLAN AS REQUIRED IN TERMS OF REGULATION 46 OF THE MINERAL AND PERTOLEUM RESOURCES DEVELOPMENT ACT (ACT 28 OF 2002)*.

Department of Mineral Resources. (2010). *GUIDELINE FOR THE SUBMISSION OF A SOCIAL AND LABOUR PLAN AS REQUIRED IN*

*TERMS OF REGULATION 46 OF THE MINERAL AND PETROLEUM
RESOURCES DEVELOPMENT ACT (ACT 28 OF 2002).*

Department of Mineral Resources. (2018). *Draft Broad-Based Socio Economic Empowerment Charter for the Mining and Minerals Industry*.
www.gpwonline.co.za

Electoral Commission of South Africa (IEC). (2021, November). *LGE2021 Councillor Lists*. Electoral Commission South Africa.
https://www.elections.org.za/pw/Documents/LGE2021_Councillors_9_Nov_2021.pdf

Etikan, I., Musa, S., & Alkassim, R. (2016). Comparison of convenience sampling and purposive sample. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4.

E&Y. (2019). *Top 10 business risks facing mining and metals in 2019-20*.

Fraser, J. (2019). Creating shared value as a business strategy for mining to advance the United Nations Sustainable Development Goals. In *Extractive Industries and Society* (Vol. 6, Issue 3, pp. 788–791). Elsevier Ltd. <https://doi.org/10.1016/j.exis.2019.05.011>

Harriss, J. (2013). *Development Theories Introduction: What development theories are about*.

Hettne, B. (2010). Development and Security: Origins and Future. *Security Dialogue*, 41(1), 31–52. <https://doi.org/10.1177/0967010609357040>

Hicks, J., & Buccus, I. (2012). *GENDER EQUALITY AND LOCAL GOVERNMENT ELECTIONS Gender mainstreaming, party manifestos, party lists and municipal planning*.

ICMM. (2018). *Social Progress in Mining Dependent Countries-ANALYSIS THROUGH THE LENS OF THE SDGS*.

Karamoko, J. (2011). *Community Protests in South Africa: Trends, Analysis and Explanations 2011*.

- Komnitsas, K. (2020). Social license to operate in mining: Present views and future trends. *Resources*, 9(6). <https://doi.org/10.3390/resources9060079>
- Kyei, K. A., & Gyekye, K. B. (2012). Unemployment in Limpopo Province in South Africa: Searching for Factors. In *J Soc Sci* (Vol. 31, Issue 2).
- Litha, M. (2019). *The Socio-Economic Impact of Company-Community Conflict on Mining Communities: A Case of Ga-Mashabela, Manyaka Villages in Limpopo*. <http://hdl.handle.net/102000/0002>
- Mancini, L., & Sala, S. (2018). Social impact assessment in the mining sector: Review and comparison of indicators frameworks. *Resources Policy*, 57, 98–111. <https://doi.org/10.1016/j.resourpol.2018.02.002>
- Matebesi, S., & Marais, L. (2018a). Social licensing and mining in South Africa: Reflections from community protests at a mining site. *Resources Policy*, 59, 371–378. <https://doi.org/10.1016/j.resourpol.2018.08.009>
- Matebesi, S., & Marais, L. (2018b). Social licensing and mining in South Africa: Reflections from community protests at a mining site. *Resources Policy*, 59, 371–378. <https://doi.org/10.1016/j.resourpol.2018.08.009>
- Minerals Council South Africa. (2021). *FACTS AND FIGURES 2020*.
- Minerals Council South Africa v Minister of Mineral Resources and Energy and Others Case No:20341/19 [2021] (HC)*. (2021).
- Mnwana, S. (2015). Mining and “community” struggles on the platinum belt: A case of Sefikile village in the North West Province, South Africa. *Extractive Industries and Society*, 2(3), 500–508. <https://doi.org/10.1016/j.exis.2015.05.003>
- Moagi, P. K. (2021). *CHALLENGES IN THE DELIVERY OF WATER SERVICES IN SEKHUKHUNE DISTRICT MUNICIPALITY: A CASE OF MAKHUDUTHAMGA LOCAL MUNICIPALITY*.

- Ndaba, M. (2016). *Defining a reliable Planning, Monitoring and Evaluation (M&E) Framework for the implementation of a Mining Company's Social Licence to Operate (SLO): An honest approach to community development in South African mining jurisdictions.*
- Nederveen PJ. (2010). *Development theory: deconstructions/reconstructions.* SAGE.
- Nxele, M. (2016). *Does mining alleviate or exacerbate poverty: Are local community grievances really "Much Ado about Nothing"?*
- Pooe, K. (2018). *THE DEVELOPMENT OF A MODEL FOR LED IMPLEMENTATION THROUGH SMMEs IN SEDIBENG.*
- Republic of South Africa. (2002). *Mineral and Petroleum Resource Development Act.*
- Rogerson C. (2011). Mining enterprise, regulatory frameworks and local economic development in South Africa. *AFRICAN JOURNAL OF BUSINESS MANAGEMENT*, 5(35).
<https://doi.org/10.5897/ajbmx11.013>
- Sachs, J. D. (2012). From Millennium Development Goals to Sustainable Development Goals. *The Lancet*, 379(9832), 2206–2211.
[https://doi.org/10.1016/S0140-6736\(12\)60685-0](https://doi.org/10.1016/S0140-6736(12)60685-0)
- SCMAC, CALS, & AMNESTY INTERNATIONAL. (2022). *UNEARTHING THE TRUTH HOW THE MINES FAILED COMMUNITIES IN THE SEKHUKHUNE REGION OF SOUTH AFRICA.* www.amnesty.org
- Sen, A. (1999). *Development as Freedom.* Oxford University Press.
- Sen, A. (2009). *The Ideal of Justice.*
- South African Human Rights Commission. (2018). *National Hearing on the Underlying Socio-economic Challenges of Mining-affected Communities in South Africa.*

Statistics South Africa. (2014). *South Africa - South African Census Community Profiles 2011*.
<https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/517>

Stats SA. (2021). *Census*. www.census.statssa.gov.za

Sturman, K., Imbrogiano, J.-P., & Mori Junior, R. (2018). *Monitoring impact of mineral sustainability standards to align with the Sustainable Development Goals Leveraging greater impact of mineral sustainability initiatives: An assessment of interoperability View project* *SDG Measurement and Disclosure View project*. www.csrn.uq.edu.au

The Presidency Republic of South Africa. (2015). *National Development Plan 2030 | South African Government*.
<https://www.gov.za/issues/national-development-plan-2030>

UKEssays. (2018). *Mining In South Africa*.
<https://www.ukessays.com/essays/history/mining-in-south-africa-history-essay.php>

United Nation. (2015). *Communications materials - United Nations Sustainable Development*.
<https://www.un.org/sustainabledevelopment/news/communications-material/>

United Nations. (2006). *Mining*.

U.S Geological Survey. (2016). *The Mineral Industry of South Africa*.
<https://www.usgs.gov/media/files/mineral-industry-south-africa-2016-pdf>

WHYLKEN, L., MODISE, A., & PERCY, S. (2022). Social Issues on the Academic Performance of Secondary School Learners in the Limpopo Province. *International E-Journal of Educational Studies*, 174–183.
<https://doi.org/10.31458/iejes.1143369>

World Economic Forum. (2016). *Mapping Mining to the Sustainable Development Goals : An Atlas*.