Socio-economic influences of mining on community:

A case study of Khumani mine

by

ELIZNA BADENHORST

2002006647

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SUPERVISORS: Mr JS Cloete and Prof JGL Marais

BLOEMFONTEIN

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Elizna Badenhorst

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ABSTRACT

The South African mining industry is understood to form part of the core of state building in the country. The impact of mining has led to various developments in South Africa, such as the Mine Health and Safety Act, 29 of 1996, the Mineral and Petroleum Resource Development Act, 28 of 2002, the Mining Charter, and Social Labour Plans (SLPs), together with a multitude of mandatory codes of practice. Unfortunately, the mining industry also contributed to many social challenges and inequalities in their local communities (Burger, Marais and Van Rooyen, 2018).

This study explored the socio-economic influences of the Khumani mine on the Gamagara local municipality community in the Northern Cape. The research aimed to understand the social and economic outcomes of mining activities on surrounding communities and evaluate how mining companies and the government attempt to address these consequences. Empirical research was conducted on the Khumani mine through a qualitative enquiry. Key informant interviews were conducted with various role-players, such as community leaders, officials from NGOs, government officials, mining officials and others.

The study's key findings are aligned with the elements described in the available literature. The study determined that Khumani mine provided significant socio-economic contributions to the local community; however, the influence of their contributions in terms of SLP and CSR initiatives is short-lived, and return on investments is not calculated, thus falling short of ensuring the sustainability of projects.

The mining industry is abrasive and disrupts natural landscapes, local communities, and their economies. Although social disruptions are understood to even out over time, mining companies must ensure that they capacitate impacted communities to support their livelihoods sustainably. The successful implementation, diversification and continued monitoring of sustainable development initiatives can ensure that the economic benefits experienced through mining boom cycles can support host communities during lower commodity prices and eventual mine closure.

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LIST OF ABBREVIATIONS

ABET	Adult-Based Education and Training
AMCU	Association of Mineworkers and Construction Union
CSR	Corporate Social Responsibility
DMRE	Department of Mineral Resources and Energy
DOE	Department of Education
DTI	Department of Trade and Industry
EIA	Environmental Impact Assessment
ESD	Enterprise Supplier Development
ETDF	Equity, Transformation and Development Forum
GDP	Gross Domestic Product
GLM	Gamagara Local Municipality
HDSA	Historically Disadvantaged South Africans
HR	Human Resources
IAP2	Association for Public Participation
IDC	Industrial Development Corporation
IDP	Integrated Development Plan
ILO	International Labour Organisation
IMF	International Monetary Fund
ISO	International Organisation for Standardisation

MCD	Mine Community Development
MPRDA	Mineral and Petroleum Resource Development Act
NEMA	National Environmental Management Act
NUM	National Union of Mineworkers
OH&S	Occupational health and safety
SED	Socio-economic Development
SGB	School Governing Body
SLP	Social and Labour Plan
SMME	Small, Micro and Medium Enterprises
SOE	State Owned Enterprise

CHAPTER 1
ORIENTATION AND PROBLEM STATEMENT

1.1 Introduction

This study examines the socio-economic influences of the Khumani mine on the Gamagara local municipality community in the Northern Cape. The research aims to understand the social and economic outcomes of mining activities on surrounding communities and evaluate how mining companies and the government attempt to address these consequences.

In this chapter, the context and orientation of the study are described, as well as the problem statement. Furthermore, the chapter defines the most prominent theoretical statements, the study objectives and the research methodology applied in this study.

1.2 Background and orientation to the study

Mining often disrupts local communities and their economies. Several theoretical frameworks explain the consequences of mining in countries with an abundance of resources. Staples's theory, developed in Canada in the 1960s, warned against the economic impact of becoming dependent on a single economic sector like mining (Watkins, 1963). The research showed how mining became an increasingly important economic sector and pushed out other economic activities. In the 1970s and 1980s, several researchers who studied mining towns explained the social change in towns where mining started as a ‘social disruption’ (Wilkinson et al., 1982).

Social disruption refers to the harmful social impacts of mining on existing communities when it starts. Later studies in Australia pointed out social disruption issues even with time (Smith et al., 2001). Also, in the 1970s, the Dutch disease theory developed. The Economist (1977) argued that mining strengthens a country’s exchange rate unnaturally and that these countries do not develop their manufacturing because of strong exchange rates. Dutch disease later developed into the resource curse theory (Auty, 1993).

The initial argument was those resource economies adversely affect the rest of the economy. However, later in the development of the theory, ‘the curse’ was also used to explain some of the social effects of mining, such as crime, corruption, and alcohol misuse. Except for studies focusing on social disruption, country-level studies often dominated the other theoretical frameworks (Obeng-Odoom, 2014).

1.2.1 International context

Two factors affected mining development in the early 1900s: technology change meant mass production became possible and peripheral locations of many mining sites. Consequently, mining companies started to develop company towns to attract labour at scale to these sites (Marais et al., 2018). Although company towns were also prominent in other industries like timber, most company towns worldwide are the result of mining activities.

By the 1970s and 1980s, mining companies started to reconsider their obligations toward company towns, although this had already been the case in Canada before the Second World War. Marais et al. (2018) continue to describe several reasons contributing to this change in approach by mining companies. First, fly-in-fly-out arrangements started in the 1970s. Fly-in-fly-out was an alternative to settling mineworkers and their families at the mines. Instead, the mining companies made available worker camps that could be dismantled after mining. Fly-in-fly-out went hand-in-hand with block-roster shifts and increased the salaries of mineworkers. Second, changing tax policies also played an essential role. Many tax authorities changed their approach to the fringe benefit of free housing and utilities. The tax changes affected both mining companies and workers. Thirdly, with globalisation, the industry started rethinking its commitments to non-core activities like housing and settlements. Soon, the payment of clean wages with no fringe benefits became common. Fourthly, mining towns and the dominant role of mining companies started to receive criticism. Mining companies were criticised for providing and dominating public services, not allowing democratic rule and not allowing freedom of choice in these towns. Since 2002, the mining industry has promoted open towns or handed existing company towns over to the democratic local government (MMSD, 2002). The new approach would focus on collaborative planning rather than mining companies dominating public concerns.

Irrespective of policy change, global mining practice still affects local communities (both positively and negatively). These effects are often the result of a considerable investment in a place where economic activity is limited or peripherally located. Even with a large body of work around mining on aboriginal communities, peasants and local farmers, industry players still find it difficult to balance responsible operations and sustainable communities (Langton & Mazel, 2008). Mining goes with land conflicts and the disruption of existing economic activities. Often, mines are accused of not employing local people or bypassing local value chains. The under-employment of women also receives attention in the research, while mine closures generate new local consequences (World Bank, 2018).

Despite these policy changes, towns near mining activities still experience many social problems. These include concerns around crime, hot bedding, and increases in land and housing prices because of mining. Local communities often feel that they do not benefit from the mining through employment or available outsourcing opportunities. By the turn of the twentieth century, the global mining industry was scrutinized to find common ground when responding to their impact on local communities and improve the industry's image in light of several disasters. Corporate social responsibility (CSR) and the notion of a social license to operate were initiated through collaborative efforts by the government and the mining industry to improve community relationships (Owen & Kemp, 2012; Bice, 2016).

The Mining, Minerals and Sustainable Development Project, established in 2002, introduced a collaborative planning approach (MMSD, 2002). By creating a tripartite alliance between the company, relevant government departments and community stakeholders, relationships are built based on collaboration, trust, and respect. This approach aims to ensure that communities share in the benefits of mineral beneficiation whilst adverse effects are avoided or mitigated. It is understood that the industry needs a development agenda formulated through participation and collaboration to ensure long-term practices and implementation. However, these ideals have been difficult to achieve, so much so that Breuckner et al. (2016) asked whether mining is a curse or a cure for Western Australia.

1.2.2 South African context

Historically, mining in South Africa was closely associated with apartheid and colonial planning, institutionalised migrant labour and poor living conditions for mineworkers. South Africa also had its fair share of company towns. Although a few mining towns remain (for example, Ulco and Aggeneys), most towns close to mines are open towns. South African policy embraced the development of open towns and handing existing company towns over to the democratic local government since 1994. Increasingly, new mines have also developed on traditional land. Therefore, mines, their operation and their workforce affect many open towns and peasant families near these mines. South Africa has fully endorsed the principles of collaborative planning. The Mineral and Petroleum Resources Development Act No. 28 of 2002 (MPRDA) instructs mining companies to develop a Social and Labour Plan (SLP) and align them with the local Integrated Development Plans (IDP) of municipalities. Although mines still practice CSR programmes, these SLPs are a form of social licence required in South Africa before the government affords a mining license to an applicant company.

Despite this legal requirement to ensure collaboration between mines, local municipalities and communities, distrust remains, and genuine collaboration and integration of plans are limited (Van der Watt & Marais, 2021). Mining has also contributed to an increase in social stratification. Research has also noted substantial inequalities between households dependent on mining and those not dependent on mining in South Africa mining towns. Another primary concern associated with mining is these towns' large-scale informal settlement development (Marais et al., 2018). Then there are concerns about mining using natural resources like water to the detriment of local communities (Matebesi & Marais, 2018). Finally, the conflict between communities and mining companies has become the norm in many places (Matebesi, 2020).

1.3 Problem statement and research questions

The above evidence pointed to the fact that mining often has negative country and local-level effects. Most of these have been studied at the country level, although there has also been a rapid increase in local case studies. This research project wants to

contribute to a range of local case studies in Southern Africa that illustrate negative effects. The following overarching questions guided this umbrella project:

- How does mining affect local communities and local towns?
- How do local communities and municipalities respond to the positive and adverse local effects of mining?
- What plans do the mines make to mitigate adverse local effects of mining?
- What are the relationships between local communities, local government and mining companies?
- What happens after mines close?

1.4 Research Objectives

In consideration of the abovementioned research questions, the objectives of the study include:

- To explore literature pertaining to mining operations.
- Examine how mining companies affect local communities and local towns.
- Examine the plans mines implement to mitigate adverse local effects of mining.
- Determine the relationships between local communities, local government, and mining companies.
- Explore the opinions relating to mine closure

1.5 Research Approach

This section describes the research approach and design as applied in this study. The research approach indicates how the research data was gathered, analysed and interpreted to achieve the study's objectives. It is understood that the research approach provides the rational for the methods utilised for a study (Welman, Kruger & Mitchell, 2005). The research methods describe the techniques utilised to gather, organise and analyse data (Grix, 2001).

Qualitative research is naturalistic, meaning it collects information from the actual environment where the activities or processes occur. The researcher must observe, describe and interpret settings as they are experienced (Maree et al., 2007; Hoepfl, 1997). This type of research places a high value on the words and perceptions of the participants instead of on numerical data. It attempts to discover events' meaning for the individuals who experience them. The researcher then attempts to interpret those meanings (Maree et al., 2007).

Qualitative research focuses on how participants organise themselves and their settings to understand their surroundings through symbols, social structures and roles (Maree et al., 2007). Attempts are made to identify the uniqueness of the setting under investigation (Hoepfl, 1997).

The nature of the data investigated in this research favoured a qualitative outlook. Accordingly, the researcher used a case study design to indicate how the Khumani mine affects local communities and settlements. Wessels (2007) explains that using a case study allows the researcher to depict an overview of daily life, as it provides a written account of real activities. A qualitative research approach was applied, and qualitative key informant interviews were conducted with various role-players, such as community leaders, officials from NGOs, government officials, mining officials and others. The case study perspective allowed the researcher to study primary information about the Khumani mine. The case study analyses existing planning documents and the economic data available from the Khumani mine.

This study used purposive sampling and conducted fifteen key informant interviews with community leaders (including NGO representatives), mining officials and government officials. Interviews were conducted in English, except for one interview, which was translated. All interviewees agreed to have their interviews recorded which were transcribed for analysis.

1.6 Population and Sampling

Authors such as Babbie (2007) and Bless et al. (2013) describe the research population as a collection of participants from which the researcher intent to determine

conclusions or characteristics. Several authors claim that there is no definite description of or guide for the sample size required when conducting a qualitative study (Maree et al., 2007). However, it is necessary to ensure that the sample is big enough to enable data saturation, meaning that additional interviews would generate no new information. The data collection period should be sufficient to give relevant participants enough time to respond (Maree et al., 2007).

Based on the work of Miles and Huberman, Maree et al. (2007:85) indicate that the following six criteria provide a basis for sampling. The sampling strategy should be relevant to the situation, participants, and the question it aims to address. The sample should be able to provide a large volume of information on the situation under investigation. The sample must enable the conclusions derived from the research to be transferred to other contexts or settings (Maree et al., 2007).

The sample must provide trustworthy descriptions of the situation. The sample must address any ethical considerations required concerning the participants. It is important that when available resources and access to participants are considered, the sample should still be able to provide a representative view (Maree et al., 2007).

The locus of the study is the Gamagara Local Municipality, the host of the Khumani mine's operational activities. Gamagara Local Municipality consists of three towns: Kathu, Olifantshoek and Dibeng. Employees from the Khumani mine reside in these towns and other towns and rural settlements in the John Taolo Gaetsewe district of the Northern Cape.

Bryman (2016) describes "purposive sampling as 'a non-probability form of sampling' where the goal is to sample cases or participants strategically" to ensure the participants are most relevant to the study and provide sufficient views from a diverse population. For this study, purposive sampling was used by the researcher as it provides an opportunity for non-probability sampling where participants are nominated based on their knowledge or experience regarding the matter (Babbie, 2007). The population for this research consisted of five mining officials, five non-government organisation representatives, three community leaders and three municipal officials.

1.7 Ethical Considerations

Imogen Parker (2018) states that to protect research subjects, one must ensure good ethical practice, and high-quality research, assure investors, maintain the good reputation of the research sector, and enable researchers to comply with legislation. According to Bryman (2016:522), increased sensitivity to ethics issues, as well as greater concern from professional associations, institutions and research funding bodies, has led to ethics issues receiving more attention, forming part of central discussions and requiring researchers to demonstrate good ethical credentials.

The researcher aimed to adhere to the following ethical principles in this study:

- Protecting participants from harm
- Ensuring participants understand the purpose of the study and provide informed consent
- Refrain from invading the privacy of participants
- Not deceiving participants in any possible way
- Obtaining formal permission from the company where research is conducted
- Promoting voluntary participation
- Ensuring anonymity (Bryman, 2016)

The research formed part of an umbrella study submitted for approval which was obtained from the General Human Research Ethics Committee of the UFS (see Appendix A). Permission was granted by the Senior General Manager of Khumani Mine to review relevant company records in respect of the study and to publish the results after the interviews were conducted (see Appendix B). An informed consent form provided a brief description of the study, the purpose, and the intent of the findings. Participants explained how their identity and personal information are protected per the Protection of Personal Information Act, 4 of 2013 (see Appendix C).

This study was a qualitative, single case study method of which findings can not be generalised for other similar settings.

1.8 Data collection method

Effective data-collection strategies ensure that a researcher can clearly explain how data is collected and how it contributes to results or decisions made (Merriam, 2009). Bless *et al*. (2013) argues that literature reviews provide the researcher with the knowledge to define key concepts and theories of the study, identifies the key variables present and introduce the researcher to work conducted by other researchers.

An interview is a two-way conversation that enables the researcher to ask the participant questions to collect data and improve understanding of how the participant experiences the situation (Maree et al., 2007). The researcher must ensure that interviews are reproducible, that they are systematic or follow a specific process, that the questions asked are credible and relevant to the research, that the process used is transparent, and that a clear audit trail can be provided (Maree et al., 2007). In this study, the data were collected with semi-structured interviews (for interview schedules, see Appendix D, E and F). This was done to explore current practices and clarify and gain insight into the participant's situation.

1.9 Data analysis

According to Graue (2016), qualitative data analysis is a process which describes, classifies, and illustrates interconnections between phenomena with the researcher's objectives. Putman and Rock (2017) explain that qualitative data analysis is categorised by inductive analysis, which aims to generate meaning. Creswell et al. (2017) explain that qualitative data analysis is a non-linear process examining how people's perceptions, attitudes, knowledge, values and experiences bring meaning to a specific phenomenon.

For this study, the interview data were examined through thematic analysis, in which an initial coding scheme was developed. Indexing was undertaken by comparing

responses throughout the data to enable the researcher to construct interesting themes.

The framework provided by Creswell et al. (2017) was applied to analyse the interview data, namely:

- Preparing the data for analysis: The recorded interview responses were transcribed into electronic word documents and included in tables.
- Coding of the data: The transcribed data was organized and read through multiple times to determine significant analytical elements. This process of coding enables thematic ideas to be sorted and examined.
- Establishing themes: To improve understanding of the data, themes were established to group data that share commonalities.
- Representing the data analysis: The researcher organised data to represent the established themes. Participants' demographic data were presented in tables to explain the participants' backgrounds to the reader.
- Interpreting and validating the data: The researcher established the interpretation and meaning of the results. Decisions and interpretations were documented together with study limitations.
- Establishing trustworthiness and credibility: The researcher aspires to the criteria of credibility, transferability, dependability, and confirmability to ensure the trustworthiness of the data analysis, findings and conclusions.

1.10 Chapter arrangement

This study is arranged into five chapters, where chapter 1 provides a broad background and orientation to the study, encompassing a problem statement, research objectives, approach and design, ethical considerations and limitations. In chapter 2, a literature review is conducted on the impact of mining on surrounding communities with a theoretical overview of literature studying mining development. Chapter 3 investigated the influences of the Minerals and Petroleum Resources

Development Act. In chapter 4, the data is presented and analysed to provide the study findings. Chapter 5 concludes the study and provides recommendations regarding the research objectives and findings.

CHAPTER 2
LITERATURE REVIEW: THE IMPACT OF MINING

2.1 Introduction

Sixty-five miners were killed at the Pasta de Conchos mine in Mexico after a methane explosion on 19 February 2006. Only two bodies were recovered (IndustriALL, 2018). Similarly, five mine employees lost their lives at the Kusasalethu mine, Carletonville, in August 2017 after a seismic event (African News Agency, 2018). To date, their bodies have not been retrieved. Does mining bring about fundamental progress and change in developing communities, or is it to blame for social decay and environmental degradation?

In the opinion of Wilkinson et al. (1982), journalist accounts most often led to the assumption that mineral resource extraction and beneficiation negatively impact local socio-economic conditions. Articles by Kelly (1980) reflect on life in boomtowns and are understood to have influenced local community opinion and policy discussions. Freudenburg (1980) attempted to understand the impact of resource growth on the women in the community. Christiansen and Clack (1976), together with Salasin and Cedar (1979), indicated how state and federal action was influenced by policy discussion that focused on the assumption that local socio-economic conditions are negatively affected by the development of mineral resources. The multitude of information available provides insight into the abrasive world of mining.

The South African mining industry is understood to form part of the core of state building in the country. The impact of mining has led to various developments in South Africa, such as the Mine Health and Safety Act, 29 of 1996, the Mining Charter, Social Labour Plans (SLPs), and many mandatory codes of practice. Unfortunately, the mining industry also contributed to many social challenges and inequalities in their local communities (Burger et al., 2018). In some academic discussions and literature, authors such as Wilkinson et al. (1982) identify local mining communities' domination and exploitation as an accompanying source of distress, especially by outside interests, such as contracting companies, coming into an area to generate quick revenue.

International comparisons conducted by Marais et al. (2018a) indicate that processes influenced and embedded in operating in an international arena, corporate strategies, constant changes in government's political and economic philosophies, the evolution of psycho-social and welfare concepts together with human rights and experiences from communities and mining employees contribute toward the evolved landscape of mining towns and communities.

To understand the impact and cost of mining on surrounding communities, reviewing the available theories related to the study of mineral resource development is imperative.

2.2 Theories Related to the Studying of Mining Development

William Sulzer, Governor of New York in 1938, proclaimed, "Those who decry mining are ignorant of history. If they knew anything about metals, they would know that all business, all industry and all human progress depend on mines". Economist Mahbub ul Haq (1995) provided important insight through his work by indicating that people are both the means and the end of economic development.

To review the theories related to the study of mining development, it remains important to return to history and review the five traditions which frequently dominated examinations concerning mining towns. The following section summarises the staple theory, social disruption theory, the resources curse, Dutch disease, and neo-liberalism.

2.2.1 Staple theory

The first contribution toward the body of research concerning mining towns was submitted from Canada by Melville H. Watkins in 1963. It provided the first theoretical structure for studying the influence of mining on development. Watkins (1963) stated that the pace of a country's development, such as in Canada, primarily depends on its exports, enabling it to afford its way globally. The export of mineral resources was, at that time, the leading industry and therefore set the pace for financial progress, leaving

an uncharacteristic mark on the impacted communities and the national economy. The importance of importing scares production materials and equipment becomes essential for society's growth. To sustain imports, the export of staples should not hinder the export of more diversified resources, which might reduce a country's dependency on a limited quantity of staple exports, as Watkins (1963) believes that economic development is supported through the diversification of a country's export base.

According to Gunton's (2003) description of the staple theory, it was argued that the export of staple products provides the basis for economic development and growth and is, therefore, the direct result of investment in the mining industry and spatial distribution; uniform, random or clumped; is associated with the extraction of mineral resources.

Watkins (1963) argued that forward and backward linkages, final demand and fiscal linkages influence the spatial distribution of development. Forward linkage entails the factors associated with processing mineral resources, whilst backward linkage involves the factors associated with the inputs required for a mining system. Final demand linkages entail the factors associated with the manufacture of consumer goods to address local needs. Fiscal linkage involves the factors associated with the expenditure of proceeds created from the beneficiation process. These factors influence the potential investment opportunities and the extent of export base diversification. An increase in exports directly improves the profits generated, increasing investment opportunities for other local sectors influenced by regional mining activities.

Marais et al. (2018c) believe that how the staple theory was applied in Canada provided the foundation for the "Dutch disease" and "resource curse" theories.

2.2.2 Social disruption theory

The social disruption theory emphasises the socio-economic challenges often associated with a rapidly expanding mining area (Marais et al., 2018c). The theory puts it forward that mineral resource boom and bust cycles negatively impact local communities as it erodes indigenous structures and cultural norms (Smith, Krannich

and Hunter, 2009) and Ennis, Tofa and Finlayson (2014) raise concern that in times of mineral booms in areas with high housing costs and services rates, the absence of organised cooperation between government, corporates and community organisations have the greatest impact on the most vulnerable members of a community and leave them at the mercy of goodwill.

From the research conducted by authors such as Bowes-Lyon et al. (2009), Argent (2014) as well as Ennis et al. (2014), it is understood that the social disruption theory considers societal issues such as high unemployment rates, homelessness, increased crime and poverty, alcohol and drug abuse, marital breakdowns, mental health issues, discord in a community as elements associated with mining boom cycles.

These arguments started to receive criticism in the mid-1980s when authors such as Wilkinson et al. (1982) questioned the empirical base and careless manner in which some studies were conducted, and others, such as Amundson (2004), cautioned against defining the development of mining communities as a negative phenomenon. When mineral resources and differences between mining towns are considered, an encapsulating and more refined picture of mineral boom cycles is achieved. This supports Wilson's (2004) statement that mining communities will experience different impacts and challenges throughout the mining life cycles.

Smith et al. (2009) conclude that after twenty years, the mining-related social challenges under investigation reported less distinguishable elements in research towns and that various corporate commitments were in progress to address the identified social challenges.

Marais et al. (2018c) point out that the opposing conclusions from available literature indicate that the perceived disruption is limited to a particular place and period in the mineral boom cycle and affects only an individual portion of the entire mining community.

2.2.3 Resource curse

With its origin in the staple theory, the resource curse theory argues that naturally occurring mineral resources negatively impact a country's development and economic growth opportunities and rarely have a constructive influence on reducing poverty measures. Marais et al. (2018c) indicate that countries whose economy is subject to the primary influence of mineral resources report that the diversification of their economy is inhibited by the short-lived dividends and income generated by the extraction of mineral resources. Non-mining related enterprises are often displaced by the opportunities available in the mining industry, reducing interest and investment in alternative sectors and industries.

The inverse connection between the health of an economy and the resource revenue generated is often referred to by conventional economists as the resource curse. Sala-i-Martin and Subramanian (2012) argue that three approaches may be used to elucidate the inverted effects observed from resource expansion and developments. In the first instance, it is argued that the increase in resource wealth intensifies the desire of some individuals to increase their share of wealth, which might lead to corruption and other associated negative economic effects. Secondly, the dependence on natural resources increases a country's vulnerability regarding global resource demand and price fluctuations. In the last instance, the focus on natural resources might hamper investment in other sectors, such as agriculture, or unnaturally inflate the resident currency to such an extent that local exports become inefficient.

Marais et al. (2018c) caution that the export of mineral resources carries the risk of overheating a mining-dependent region's economy to the extent that the economy cannot meet the demands of individuals, government and corporations. This is believed to impede a region's ability to diversify its economy and how it reacts to global fluctuations. Stedman et al. (2004) explain that overheating a local currency creates incompatible exchange rates, which negatively impact the exports of other industries and sectors.

Langton and Mazel (2008) and Hammond (2011) argue that political elements, such as corruption and weak political institutions, in resource-dependent regions often

contribute to the resource curse as it might increase a community's dependency on corporate support and servicing of costs to address local societal challenges.

Obeng-Odoom (2014) supports the view of other authors such as Sachs and Warner (1995), Collier (2006), Hammond (2011), Sala- i-Martin and Subramanian (2012), and Yates (2012). They believe that the resource curse exists where wealth is obtained without the requirement of hard work and leads communities to become lazy and indifferent.

However, the literature studied by Marais et al. (2018c) indicates that beyond economic and political manifestations, the resource curse negatively impacts education, health services, and the development of women in a community. Langton and Mazel (2008) argue that empirical evidence is available to support the notion that non-mining-dependent countries and regions outperform resource-dependent countries.

Developing mining areas are understood to experience pressure on housing, infrastructure and services sectors due to the unexpected increases in populations, supporting businesses and services. Haslam McKenzie (2013) is of the opinion that as communities experience the long-term effect of resource development, the community may struggle to retain the skill and interests of key individuals in the health, education and policing sectors. Communities often face challenges to essential services such as childcare and casual labour, understood to make a community liveable. This might be illustrated in the challenges faced by healthcare workers, teachers and police officers in affording decent housing in mining areas which are often reported to maintain high housing rents and related services.

2.2.4 Dutch disease

Dutch disease is often argued to be related to the resource curse and is also reported to have its foundation in the staple theory. *The Economist* (1977) coined the phrase and defined Dutch disease as the negative impact resource extraction, and minerals boom cycles have on manufacturing sectors in the region. It is often applied to circumstances where mineral resources influence the rise of exchange rates and

development, leading to an influx of capital and labour into a country (Marais et al., 2018c).

Cooley (2001) indicates that Dutch disease also contributes toward the government's increased involvement in the economy and reduces the levels of tax collection. The long-term impact of these activities, however, contributes toward higher production costs, decreasing locally produced goods and services' international competitiveness as well as resulting in an increase in local wages.

It is suggested by Rolfe et al. (2007) that two options exist for addressing Dutch disease. The first instance argues that a portion of the resource reserves should be held elsewhere to reduce local expenditure. The second option supports intervention in those areas or elements that directly impact the competitiveness of specific sectors. Although positive influences are experienced, the Dutch disease theory focuses on negative social consequences associated with extracting mineral resources; for example, rising local housing prices lead to the exclusion of some community members or even their relocation. It is believed that Dutch disease could result in an increase in unemployment due to the mineral resource's impact on costs and efficiency in other sectors or industries (Marais et al., 2018c)

2.2.5 Neoliberalism

The neoliberalism theory could be attributed to the growth of multinational organisations, increased focus on shareholder value, the outsourcing of non-core mining activities, the implementation of shift work and increased salaries. How neoliberalism influenced the production of mineral resources and the reaction from government institutions created situations that required mining communities to respond to the changing circumstances (Marais et al., 2018c).

It is understood that property rights, free markets and free trade are issues emphasised by neoliberal governments. Bryceson and MacKinnon (2013) argue that neoliberalism reduces the government's role in mining and its ability to direct mining investments. Neoliberalism leads to a sectoral approach that views mining as an export revenue source and an investment magnet. Governments are reported to shift

mining-associated risk onto local communities. They regularly blame the lack of development on inappropriate responses by residents and, in so doing, downplay the structural inefficiency in local governments (Pick, Dayaram and Butler, 2008).

In the mining industry, neoliberalism increases focus on value for shareholders; it requires efficient productivity and emphasises infrastructure. This focus on monetary gain often results in corporations' reluctance to focus on societal development goals. A consequence of applying the neoliberalism theory is an increased number of contingent workers, the implementation of shift work and an overemphasis on international networks (Marais et al., 2018c).

This theory also did not escape criticism from academics. The available literature suggests that focusing on global competitiveness in mining corporations disregards social organisation; companies often disregard long-term planning. It is said to deprive indigenous communities, underplay the importance of sustainability, prevent residents' participation, and encourage corrupt activities to reduce tax liability, which could ultimately negatively impact the national economy (Marais et al., 2018c).

In light of the increased application of neoliberalism in the international mining industry, various international funding institutions and governments have raised their concern about the importance of local decision-making community participation in how mining revenues might be invested in local activities through SLPs and municipal, industrial development plans together with the establishment of tripartite partnerships (Marias et al., 2018c).

2.3 Understanding the Cost of Mining

Western media often propagate the notion that the discovery or exploitation of natural resources will either corrupt its owner, at the mercy of international investors or be socially disorganised. These reports neglect to communicate how regional expectations are assembled, experienced, and perceived and how it relates to the issues of land, employment, distribution of wealth and the state. For this reason, it remains critical that studies and research are based on factual recollections and journals (Obeng-Odoom, 2014).

Academics such as Davids and Theron (2014) and Matunhu (2001) assist in defining development as the systematic evolution of an individual, or community's, access to a package of activities, products and services, which provides the individual with improved choices to fulfil or satisfy his or her basic needs, improve his or her quality of life and participation in social, political and economic activities. Due to each person's varying frame of reference, exposure, and personal experiences, development might convey different meanings to each of us.

Redclift (1991) believes that development liberates individual capacities and provides for communities' anthropological needs. It contributes to reducing poverty and improving the community's life quality, offering secure livelihood with full access and rights whilst supporting social unity.

Due to its prosperous endowment of natural resources, the African content might be labelled as wealthy. Obeng-Odoom (2014) argues that despite this evidence, most countries endowed with natural resources are reported to be unable to purposefully implement the revenues from mineral extraction and beneficiation to improve the livelihoods of their local communities. Economists contend that these available revenues rather support repressive governments and organisations. In countries such as Chad and Libya, it is reported that a considerable portion of revenue is allocated to military expenditure to ensure civil rights and freedom, while in Cameroon, public participation is challenging. Conflict and corruption are said to be rife in Angola, although the country experienced a remarkable expansion in oil production.

Political economists such as Aaron (2005), Shaxson (2007), and Egiegba (2013) believe that social deprivation is amongst the structural reasons why communities are faced with various social and economic challenges and the lack of development during periods of resource expansion. Together with hierarchical clientelism in favour of political support, the interdependent association of the state with local elites and transnational companies inhibits the efficacy of organisations that advocate and work toward transparency and shared wealth for all impacted communities.

Employment opportunities resulting from resource expansion are often significantly less than expected and of lower grading or rung. Local youth are often disgruntled and

believe that the wealth generated by resource extraction and beneficiation does not equally reach the impacted communities (Obeng-Odoom, 2014).

2.3.1 Human Settlements

Local farmers, fishermen and destitute people often suffer when landlords evict occupants from rental homes in favour of higher-paying tenants connected with the resource companies. Low-income community members continue to be marginalised as they need to move into poorer housing or pay inflated rent for substandard housing due to an overall shortage of accommodation and services during resource boom periods. The exploitation of natural and land resources is argued to support progress and create poverty as the shared wealth is absorbed by an upper class who rarely exerts any effort in earning profits (Obeng-Odoom, 2014).

Marais et al. (2018a) believe that besides providing infrastructure, services, and housing, mining towns contributed towards serving a social purpose. The mining towns created a sense of community and established social rules and norms which coincided with the company's values. Activities in mining towns provided recreational and cultural activities to those employees who were far from home and separated from their families (Marais et al., 2018b).

It is understood that the demise of traditional company-owned settlements was brought about in the 1980s in response to two international circumstances. In the mid-1980s, mineral resources experienced an economic slump that coincided with improved production processes, placing technical efficiency at a premium. Policies advocated by Reagan and Thatcher in favour of deregulation, denationalisation and economic austerity gained international support and acceptance. To reduce costs, company shareholders were in favour of shedding non-core mining activities and administrative burdens. This led to decisions where company-owned housing was handed over to individual households. To provide essential services, town management and infrastructure were handed over to local government authorities (Marais et al., 2018a).

The implementation of a reportedly new natural resources policy plan, which existed in parallel with the neo-liberalistic movement, contributed towards the demise of the traditional company-owned housing schemes. The novel resource policy supported decentralising government institutions, encouraging community participation and promoting public-private partnerships. This process replaced traditional mining town structures and services with amalgamated governance models, tripartite partnerships and collaborative planning processes (Owen & Kemp 2003).

Through comparing South African mining conditions with those experienced in Australia and Canada, Marais et al. (2018a) concluded that in all the countries under investigation, governments first encouraged and formalised structures that supported company towns before normalising and regulating these towns as per government systems and authorities. Due to the mines' location, Australia and Canada focused on temporary communities that support its fly-in-fly-out operating models. A contrasting picture is, however, established in South Africa. In an attempt to support sustainable settlements, South African mining companies collaborating with government institutions promote permanent human settlements that are constructed within and can be supported by diversified economies.

A study conducted by Marais et al. (2018a) enlightens readers about the complex factors associated with mining towns. Factors such as globalisation, corporate strategies, shareholder agendas, political ideology and government structures and systems aimed at ensuring the welfare and protection of citizens' rights impact mining communities. In the South African mining industry, permanent settlements and decent living conditions are promoted through policies and acts such as the Mineral and Petroleum Development Act of 2002, the Mining Charter, and every mining company's SLP, which acts as the company's licence and guideline for operation.

The inevitable, debilitating effects of mine closure must form part of town planning for the entire duration of a mine's operating licence. Local government authorities and mining companies, through their SLPs as well as CSR programmes, should encourage alternative sustainable economic opportunities (Marais et al., 2018a). Remote conditions, such as those found in the Northern Cape of South Africa, require improved monitoring and assessment of the impact of development to combat these settlements' dependency on the mining industry. Various company and government policies should

consider mining settlements' changing requirements and characteristics (Ryser et al., 2016).

2.3.2 Women

One detrimental cost of a resource boom is the marginalisation of women. It can partly be reflected in the share and types of employment opportunities available to women. The commodification of women's bodies often leads to exploitation, the deterioration of households, and gender-based violence (Obeng-Odoom, 2014). The social structures within the mining industry and surrounding communities reportedly created inequality between men and women. It attributed specific gender roles to women, which led to the subservient positions women were required to bear (Botha, 2016). As observed in Sekondi-Takoradi, the resource boom is believed to have circumvented local communities and presented men with advanced opportunities over women (Obeng-Odoom, 2014).

The International Labour Organisation and mining law historically prevented women from working in underground mines as physical labour work was traditionally earmarked for men. Local cultural traditions marginalised women and prohibited them from gaining employment in surface mines or occupations. With the dawn of a new South Africa in 1994, the country adopted numerous strategies, forming part of the new government's economic empowerment policy. These policies aimed to redress inequalities and to provide opportunities focused on historically disadvantaged South Africans (HDSA's), such as women, in the country's mining industry (Botha, 2016).

A study conducted by the organisation Woman in Mining South Africa (WiMSA) in conjunction with the School of Mining Engineering at the University of South Africa in 2013 indicated that women felt they were not being treated equally by their male counterparts. Some reported challenges women regularly face include a lack of mentorship, guidance, workplace support, and the absence of hygiene facilities (Kihn, 2018).

2.3.3 Environmental

Spiegel and Veiga (2005) describe how farmers in developing regions are often compelled by cycles of droughts, floods, and economic instability to abandon their agriculture practices to earn a stable income through mining activities. This, however, negatively impacts the availability of subsistence goods to the impacted communities. In the opinion of Obeng-Odoom (2014), environmental challenges regularly contribute to recurrent violent conflicts. Mining contributes to landscape degradation and ecological impacts such as the siltation of water, mercury pollution and acid mine drainage, deforestation, the diversion of rivers, and the dewatering of aquifers which in turn lead to the occurrence of sinkholes. An example of such a situation is observed in the Niger Delta, where due to land degradation and pollution, communities lack access to potable water, electrical supply, traversable roads and shortages of medical supplies.

Sustainable development requires a long-term organisational approach for international economic and social structures, which attempts to reduce negative influences on the environment and natural resources to a perpetually sustainable level while sustaining economic advancement and social unity (Redclift, 1991).

2.3.4 Health

Rural residents are often driven by poverty to participate in mining activities without an encapsulating view or understanding of how their activities impact their health or environment. These individuals also have limited access to resources and the capacity to address the risks associated with working in the mining industry (Spiegel and Veiga, 2005). Campbell, Richie and Hargrove (2003) describe the difficulties experienced with managing community mental health when residents are preoccupied with fulfilling their most basic and essential needs.

Hinton, Veiga and Beinhoff (2003) attribute health conditions such as cardiovascular dysfunctions, mercury poisoning, pneumoconiosis, workplace injuries and fatalities due to cave-ins, landslides, or chronic overexertion as direct impacts of irresponsible mining practices.

Investing in a community's human capital through health care services could positively influence economic participation and reduce the burden on the community and environmental resources. If a health pandemic breaks out in a mining community, the population density will allow the disease to spread and possibly infect the entire community rapidly. The impact of such a health pandemic would have a long-term impact on the sustainability of both the local community as well as for national development (Hope & Lekorwe, 1999).

This concludes the section on understanding the socio-economic costs associated with mining. In the following section, we investigate the legislative requirements and philanthropic reasoning for organisations to alleviate the socio-economic influence of mining on their surrounding communities.

2.4 Corporate Social Responsibility

Coulson's (2012) dedication to charting mining's development provides a corrective view for individuals who believe miners are rapacious plunderers of the earth and exploiters of people. Although the industry has its fair share of questionable conduct, the mining industry brings about change in mining communities. These changes should benefit the communities and shareholders when addressed and guided responsibly.

The Broad-based Socio-economic Empowerment Charter for the South African Mining Industry, colloquially referred to as the Mining Charter, was introduced to redress historic imbalances created by the previous government structures (Botha, 2016). Corporate philanthropy might have given rise to the rapidly changing field of CSR. Socially responsible activities and initiatives are currently under the spotlight in academic and corporate arenas (Sawyer and Evans, 2010). Although widely accepted and practised through decades in countries such as Europe, America and Australia, South Africa only recently managed to catch up on this concept due to the after-effects of the previous political dispensation (Davids and Theron, 2014).

According to Chen (2011), CSR is constructed around responsibility, accountability, competitiveness, and transparency. Company strategies that prioritise accountability

and transparency are argued to improve their competitiveness whilst generating a sense of responsibility, which is understood to bring about socially responsible behaviour. Mining companies often voluntarily employ CSR activities to reduce social and environmental impacts on their surrounding communities. Most of these CSR activities aim to uplift the community's education levels, health and living conditions and often extend beyond legal requirements (Westphalen, 2012).

Due to the changing nature of social contracts and communities' evolving needs and desires, establishing a singular, widely accepted definition for CSR seems unattainable. For this dissertation, CSR is regarded as the sum of legally bounded and voluntary initiatives instituted by organisations to provide for the needs and address the challenges experienced by the communities in which they function.

Ismail (2009) states that organisations can influence society in several ways by taking cognisance of various socio-economic variables when measuring their performance. Responsible organisations should therefore ensure that their influences amount to positive, sustainable growth. Socially responsible activities and initiatives positively affect an organisation's reputation and provide access to new markets and investment partners.

In the CSR landscape, the interaction between an organisation, the community and the governing body must collaborate to ensure CSR initiatives' successful implementation. CSR initiatives provide various advantages to the participating stakeholders. Although all parties are required to operate in a symbiotic manner, not all stakeholders necessarily benefit to the same extent. Due to their limited resources, the government can also benefit through their relationships with organisations that are acting in a socially responsible manner. Organisations can provide the financial and human resources often required to react positively to a community's social demands and challenges. However, government officials should use this relationship for the betterment of the community and not for their private gain.

2.5 Conclusion

The literature provided insight into past research conducted on the influences of mining activities on host communities. Table 1 summarises the key perspectives from the literature and aligns them with the research objectives. Through this literature review, it becomes evident that although South Africa's development is partly due to the mining industry, various social challenges and inequalities experienced in the country are due to mining and its legacy (Burger et al., 2018).

Table 1: Summary of key perspectives of the chapter

Research Objectives	Key perspectives/findings
Theories on the impact of mining	Theories relating to the impact of mining on communities include staple, social disruption, resource curse, dutch disease, and Neoliberalism
Understanding the cost of mining	Both positive and negative impacts are experienced due to mining in areas such as human settlements, environmental deterioration, women's limited contribution to the mining industry, and employee and community health.
Relationships between local communities, local government, and mining companies.	Companies focused on profit; governments marginalise communities, communities excluded from developments
Mitigating the impact of mining	Occasional philanthropy toward communities was replaced with SLP and CSR requirements through the Mining Charter.
Mine closure	The inevitable, debilitating effects when mines close can only be mitigated through sustainable community development.

Processes influenced and embedded in operating in an international arena, corporate strategies, constant changes in government's political and economic philosophies, the evolution of psycho-social and welfare concepts and human rights, and experiences from communities and mining employees contribute toward the evolved landscape of mining towns and communities. Marais et al. (2018a) state that apart from environmental concerns, extraction and profitability, the mining industry is responsible for the construction and the demise of surrounding settlements and human livelihoods.

Watkins (1963) advises on the importance of creating and supporting local entrepreneurship and complementary inputs to the extraction of mineral resources to support the sustainability of communities. Companies should consider that the quality

of the labour force is significantly related to education facilities in the vicinity of the labour-sending areas.

Although some resistance and challenges are experienced by practitioners and organisations implementing CSR initiatives, the benefits of these activities outweigh the challenges experienced, as both the organisation and the community stand to gain from the reported benefits. CSR activities significantly contribute toward addressing the conditions or challenges introduced by mining in a community and the upliftment of the individuals and communities in South Africa.

The inevitable, debilitating effects of mine closure must form part of town planning for the entire duration of a mine's operating licence. Through their SLPs and CSR programmes, local government authorities and mining companies should encourage alternative sustainable economic opportunities. Remote conditions, such as those found in the Northern Cape of South Africa, require improved monitoring and assessment of the impact of development to combat these settlements' dependency on the mining industry. Various company and government policies should consider mining settlements' changing requirements and characteristics (Marais et al., 2018a).

CHAPTER 3
INFLUENCE OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT

3.1 Introduction

The Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry describes how the exclusionary policies prevalent during the Apartheid era prohibited Historically Disadvantaged South Africans (HDSA's) from owning resources and tools for production and prevented effective participation in the South African economy. Amongst other measures to address the historical inequalities as well as to align mining activities with section 9 of the South African Constitution (1996), which acknowledges that "Everyone is equal before the law and has the right to equal protection and benefit of the law", the democratic government of South Africa enacted the Minerals and Petroleum Resources Development Act 28 of 2002, (MPRDA).

The MPRDA aims to safeguard South African mineral and petroleum resources and ensure their sustainable use concerning a national environmental framework policy. This framework protects the sensitive environmental areas and recognises the interest of impacted communities, organisations and individuals, despite focusing on promoting socio-economic progress.

Ramatji (2013) believes that implementing the MPRDA initiated a revolution in how South African mineral resources are managed and administered. Historically the Minerals Act (50 of 1991) included an element of public law administration; however, the system was predominantly based on rights and duties in private law. The promulgation of the MPRDA ended the previous mineral administration. It replaced the mineral law with an innovative legislative framework which includes components of robust state control regarding exercising and transferring mineral rights. The MPRDA contains transitional provisions which govern the change from one administrative regime to the other without destabilizing the mining industry as a sector of the South African economy.

3.2 Objectives of the MPRDA

The objective of the MPRDA is to recognise the rights of the South African government to exercise its power, as custodian, over the country's natural resources. It aims to provide all South Africans with equitable access to natural resources. The act provides access and active participation to historically disadvantaged women and communities to share in the profits of exploiting and beneficiating the country's natural resources.

The MPRDA aims to promote economic growth through the mining and petroleum industries as vehicles for development whilst ensuring that the country's natural resources are beneficiated in an environmentally responsible manner. It provides employment and security in prospecting, exploration and production activities whilst ensuring that rights holders contribute to their local communities' socio-economic development (Act 28 of 2002).

Scheepers (2000) believes that the first objective is to position the state to manage South Africa's mineral wealth in the best interest of the country and its people. Objectives b, c, and d deal with the socio-economic matters which involve the government's responsibility toward the nation, equity regarding access to mineral resources and creating access for HDSA's to developments and financial opportunities.

The principles of industrial economic development influenced objectives e, f, g, and h. These four objectives provide the foundation for mining and petroleum industry development. These principles form part of the security framework guiding investment in the South African mining industry.

Kidd (2011) explains that the MPRDA acknowledges the importance of the mining industry complying with the essential environmental principle of sustainable use of South Africa's natural resources. In this instance, the objective is to balance the right to a safe and healthy environment with the right to development to ensure improved economic opportunities for the country's residents.

3.3 Custodianship

Section 3 of the MPRDA clarifies matters regarding custodianship in the minerals and petroleum industry. With the enactment of the MPRDA, the South African Government aims to redress inequalities created by historical racial discrimination, eradicate all forms of discrimination in the mining and petroleum industries and place the country's mineral resources in the hands of the South African citizens whilst appointing the State as the custodian of the resources on behalf of the citizens (Van der Schyff, 2012). By repealing the Minerals Act (50 of 1991), the enactment of the MPRDA ended the old-order mineral administration.

As custodians of the country's mineral and petroleum resources, the South African government must administer and manage the resources in the best interest of all South African citizens. The citizens, in turn, can enforce their rights provided by the Act against the Government to ensure the state is held accountable if the South African Government does not comply with the obligations set out in the Act (Van der Vyver, 2012).

As custodian of the mineral and petroleum resources, the state must function as a facilitator to ensure broader and reasonable access to the mineral and petroleum resources and is not supposed to operate as a contender for the rights to mine or prospecting rights for these resources. Van der Schyff (2013) explains that although South African courts have not thoroughly defined the concept of stewardship, as custodian, the South African Government has a duty toward the environment, a duty to conserve and protect resources, as well as a duty towards the country's citizens and future generations, in respect of the exploitation of mineral and petroleum resources.

The South African MPRDA aims to redress historical discrimination and prevent future discrimination by promoting the distribution of mineral and petroleum resources among HDSA groups. Intending to provide reasonable access to mineral resources and support sustainable growth, serving as a regulatory framework, the MPRDA ensures that resource rights are allocated to qualifying applicants who comply with the Act's objectives and guidelines (Mkize, 2014). This represents a break from the previous administration, as the private possession of the country's mineral resources is no

longer possible under the MPRDA, which declares that the natural resources must benefit all the citizens of South Africa.

3.4 Obtaining a mining right

Section 16 of the MPRDA describes obtaining a prospecting and mining right through an application to the Minister of Mineral Resources and Energy. An application which complies with the requirements must be submitted at the office of the Regional Manager of the Department of Mineral Resources and Energy. Upon acceptance of the qualifying application, the applicant will be informed by the Regional Manager to submit an Environmental Management Plan to provide written notice and consult with the affected property owner. The Regional Manager will submit a qualifying application to the Minister upon delivery of the Environmental Management Plan, with a report on the outcome of consultation with any impacted landowners and interested and affected parties.

Leonard (2019) cautions that traditional leadership structures have historically created a barrier during consultation processes concerning the inclusion of local citizens' concerns about mining development in the application and administration of mining rights. It is argued that traditional leaders often colluded with mining companies. However, access to case studies and academic research to investigate interactions between mining companies and state and community leaders remains limited.

In granting prospecting or mining rights, the Minister confers a limited right *in rem* on the holder to enter the property or land, to search for the mineral resource a right has been issued for, and, if found, exploit and beneficiate the resource for the account of the mining right holder. Prospecting rights have a validity period of 5 years, whereas mining rights are valid for 30 years in South African law.

3.5 Transformation and Compliance with the Mining Charter

Developing a broad-based socio-economic empowerment charter, commonly known as the Mining Charter, as prescribed by Section 100 of the MPRDA, ensures that HDSA benefits from the mining and beneficiation of South Africa's natural resources.

The framework provided by the Mining Charter ensures measurement criteria focus and fast-track transformation in the mining industry, which also aligns to article 8 of the Declaration on the Right to Development of the United Nations. The latest Mining Charter is understood to be better aligned with the Broad-Based Black Economic Empowerment Codes of Good Practice compliance measures and criteria of the Department of Trade and Industry (Teleki, 2021).

Deloitte (2019a) argues that with South Africa's weak economic environment, alignment between regulatory certainty and substantial transformation is necessary to attain value beyond compliance in the mining and petroleum industry and for countless stakeholders. The regulatory and policy environment must enhance competitiveness to attract investments to the sector while enabling socio-economic impact and development.

The Mining Charter Framework focuses on Ownership, Employment Equity, Supplier and Enterprise Development, Inclusive Procurement, Human Resource Development, Housing and Living Conditions, and Mine Community Development. To assist with implementing the Mining Charter, the Department of DMRE also published an Implementation Guideline to assist with understanding and implementing requirements.

Ring-fenced elements, such as Ownership and Mine Community Development (MCD), require a company's full compliance. If a company does not comply with ring-fence elements, it will be deemed non-compliant, regardless of its grading in other framework elements. The Housing and Living Conditions element is neither weighted nor ring-fenced, and rights holders must submit a Housing and Living Conditions Plan per the requirements set out in the Housing and Living Conditions Standard. Following the Employment Equity Act, 55 of 1998, the Mining Charter provides criteria to facilitate career progression and affirms the importance of talent pools aligned with demographics. This is partly because workplace inclusivity and diversity are promoted as catalysts of transformation, social cohesion and competitiveness in the minerals and petroleum industry (Deloitte, 2019a).

Due to ambiguous MCD targets, SLPs rely on local IDPs, and commodity price volatility compliance in this element remains challenging. A company's five-year Social

and Labour Plan (SLP) thus necessitates realistic projects with clear timelines and budgetary requirements. Various companies and communities indicate that IDPs do not necessarily reflect the persistent needs of local communities. Rightsholders must transform progressively and meet the staggered compliance targets in several transition periods.

Deloitte (2019a) and Teleki (2021) agree that to leverage competitive advantage from the South African mineral and petroleum resources. All stakeholders must work together to ensure that the mining industry contributes to meaningful socio-economic development and improve regulatory certainty whilst improving investor perceptions.

3.6 Environmental Management

The implementation of the MPRDA brought about a renewed focus on human and animal health and welfare in areas of mining activity. It was enacted to align mineral exploitation to the environmental rights in the Constitution, which requires that activities are conducted in an orderly and ecologically sustainable way that does not negatively impact the rights of future generations.

As set out in the MPRDA, environmental measures are comprehensively set out and stringently applied to companies and individuals in the mining and petroleum industry. Requirements as set out in the MPRDA ensure companies minimize the impact of their activities on the environment and rehabilitate topography as far as reasonably practicable. This ensures that the broader socio-economic elements are considered (Strydom et al., 2009).

Rights holders must comply with Chapter 5 of the National Environmental Management Act (NEMA), 107 of 1998, which prescribes general principles for integrated environmental management. Rights holders must study and determine the impact of their activities on the environment. Environmental impacts must be addressed per their approved environmental management program and communicated to interested and affected parties. Rightsholders are required to rehabilitate any prospecting or mining area to a natural or predetermined state as

reasonably practicable or ensure that it is aligned with any generally accepted principle regarding sustainable socio-economic development.

The MPRDA, in section 45, stipulates that if a rights holder fails to rehabilitate or address any adverse impacts on the environment or is incapable of rehabilitating said area, the financial provision required from rights holders may be used by the minister to rehabilitate or manage impacted mining areas.

3.7 Conclusion

The MPRDA was enacted to safeguard South African mineral and petroleum resources and ensure their sustainable use concerning a national environmental framework policy. The objectives of the MPRDA ensure responsible mineral resource utilisation and management in the interest of the people and future generations. The objectives and the Mining Charter aim to provide HDSAs with access to mineral resources, socio-economic development and financial opportunities whilst promoting and guiding investment in the mining industry.

According to the MPRDA, the State is the appointed custodian of the country's mineral and petroleum resources on behalf of the citizens. As custodians of the mineral and petroleum resources, the South African government is obligated to administer and manage the resources in the best interest of the South African citizens. (Van der Schyff, 2012).

The requirements set out in the MPRDA fast-track transformation initiatives ensure companies minimise their activities' influence on the environment and rehabilitate topography as reasonably practicable. This ensures that the broader socio-economic elements are considered (Strydom et al., 2009).

Table 2 summarises the key perspectives of the legislative framework and aligns them with the research objectives. The South African legislative framework, in principle, protects sensitive environmental areas. It recognises the interest of impacted communities, organisations, and individuals, although focusing on and promoting socio-economic growth.

Table 2: Summary of key perspectives of the chapter

Research Objectives	Key perspectives
The legislative framework for mining	Mines require a license to operate, which is governed principally through the MPRDA, NEMA and MHSA toward sustainable development
Relationships between local communities, local government, and mining companies.	Legislation and charters necessitate a tripartite approach between private, public and community sectors toward sustainable development
Mitigating the impact of mining	Through SLP and CSR initiatives, mine are required to contribute toward sustainable community development
Mine closure	Mines should inform stakeholders on company performance, downscaling and mine closure through Future Forum platforms.

CHAPTER 4
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The previous chapter provided an overview of South African legislation and how the MPRDA, together with the Mining Charter, aims to provide HDSAs with access to mineral resources, socio-economic development initiatives and financial opportunities whilst promoting and guiding investment in the mining industry. This chapter aims to document the findings from the interviews. Fifteen individual interviews were conducted with members representing the community, local government, and the mining company.

The study is focused on Khumani Mine. The participants were drawn from the local host community of Gamagara Local Municipality. The questions discussed with participants allowed them to express themselves openly and provide context on their opinions. I compared patterns and nuances which appeared throughout the data collected. Themes with sub-themes are considered to address the research objectives.

Findings are presented according to the research objectives:

- Determine how mining companies affect local communities and local towns.
- Understand how local communities and municipalities respond to the positive and negative local effects of mining.
- Examine the plans mines implement to mitigate adverse local effects of mining.
- Determine the relationships between local communities, local government and mining companies.
- Explore the opinions relating to mine closure

4.2 Demographic profile and sample

A total of fifteen individual one-on-one interviews were conducted. Representatives from the communities, local government and the mining company were selected based on their occupation, experience, and knowledge of the prevailing conditions in the local host community. The researcher attempted to engage with provincial DMRE

participants. Unfortunately, the individual declined the request for participation. Participants represented five mining officials, five government officials, and five community members. Fifty-three per cent of the participants were female, and forty-seven per cent of the participants were male. Through the interviews, points of saturation were attained.

4.2.1 Demographics of community representatives

The community participants consisted of three females and two male participants. The participants represent ward councillors, SMME projects implemented by Khumani Mine, religious leaders, and community social services. The community participants had five to seventeen years of experience. A total of five participants were interviewed, of which sixty per cent were women and forty per cent were men. Participants had to be actively involved in the local host community regarding the mines' involvement in the area.

Table 3: Representation of Community Participants

Interviewee number	Gender	Level	Department
Interviewee 03	Female	Senior Level	Ward Council
Interviewee 04	Male	Middle Management	SMME Beneficiary
Interviewee 07	Female	Senior Level	Community service
Interviewee 11	Male	Senior Level	Religious Leader
Interviewee 12	Female	Senior Level	SMME Beneficiary

4.2.2 Demographics of local government representatives

Two participants represent Gamagara Local Municipality, and three represent the Department of Education (DOE). The researcher requested an engagement with the provincial Department of Mineral Resources and Energy (DMRE) to participate in the

study. Unfortunately, the individuals declined the request for participation. A total of five participants were interviewed, of which sixty per cent were women and forty per cent were men. The representatives are in senior management level positions as well as skilled specialists. The participants had four to thirty years of experience in their current position. Participants are directly involved with SLP development or should be community stakeholders in developing local IDP and CSR strategies. Participants had to be actively involved in the local host community with reference to the mines' involvement in the area.

Table 4: Representation of Government Participants

Interviewee number	Gender	Level	Department
Interviewee 05	Female	Senior Level	Education
Interviewee 10	Male	Senior Level	Education
Interviewee 13	Female	Senior Level	Education
Interviewee 14	Female	Junior level	Local Government
Interviewee 15	Male	Senior Level	Local Government

4.2.3 Demographics of mining company representatives

The five participants interviewed from the mine represent five departments, consisting of three men and two women. The participants had five to eight years of experience in their current position. Participants either directly or indirectly participate in the design and implementation of SLP and CSR strategies at the mine, which enables them to provide first-hand information on the policies, procedures and applications. Table 3 depicts the representation of participants from the mine:

Table 5: Representation of Mine Participants

Interviewee number	Gender	Level	Department
Interviewee 01	Male	Senior Level	Operations
Interviewee 02	Male	Middle Management	Business Improvement
Interviewee 06	Female	Senior Level	Corporate Social Responsibility
Interviewee 08	Male	Senior Level	Supply Chain and Procurement
Interviewee 09	Female	Senior Level	Finance

4.3 Themes

Three interview schedules were developed for each of the representative categories, namely community representatives, government representatives and representatives from the mine. Participants within each category were asked the questions during one-on-one interviews. The study revealed similar themes and patterns between the three participant categories aligned with the research objectives. The results from the data analysis are presented in a cohesive manner using comments made by the respective participants during the interviews. Themes and sub-themes emerged from the data analysis process and are portrayed in Table 6 below and discussed in the remainder of the chapter.

Table 6: Data analysis themes and sub-themes

Research Objectives	Themes	Sub-themes
Examine how mining companies affect local communities and local towns	Theme 1: The effects of mining on local communities.	Sub-theme 1: Environmental Sub-theme 2: Housing and living conditions Sub-theme 3: Employment Sub-theme 4: Community development
Examine the plans mines implement to mitigate adverse local effects of mining	Theme 2: The mine's strategy to mitigate local adverse effects of mining	
Determine the relationships between local communities, local government, and mining companies.	Theme 3: Relationships between local communities, local government, and mining companies.	Sub-theme 1: Community participation in SLP and CSR strategy development Sub-theme 2: Community request for change in mine's approach
Explore the opinions relating to mine closure	Theme 4: After the mine closes	

4.3.1 Theme 1: The effects of mining on local communities

To understand the impact of mining on local communities, the participants were asked to explain the socio-economic situation of surrounding communities and describe the positive and negative effects of mining on the area.

I established that the Khumani mine did contribute to various developments in the Gamagara Local Municipality. This was captured in the word of community respondents, as follows:

> "*The town wasn't ready to expand at the rapid pace that it did. So, the municipality is struggling to keep up with demand*" (3).

The impacts of the mine on the community, as described by respondents, vary between positive and negative impacts.

4.3.1.1 Sub-theme 1: Environmental impacts

The negative impacts described by the respondents related to environmental concerns. Various respondents voiced their concern regarding water availability in the area and claimed that the water tables of natural aquifers have lowered. Another respondent described their challenges in terms of waste management and the impact of illegal waste dumping in the dedicated green areas of Kathu.

Through the interviews, I established that the mine's water use license does not allow the mine to extract any groundwater for operational purposes. The mine quickly pointed out that they support local government in infrastructure expansions and maintenance as they depend on the water supplied through the system.

A government official is, however, of the opinion that sufficient water supply is available and rather questions the local municipality and government's ability to manage water supply and related infrastructure:

> *"There is so many water leaks in our town, the municipality is not taking care of problem areas or doing any maintenance on our infrastructure. Remember some of this infrastructure is already more than 40 years old" (10).*

In terms of their environmental impacts, the mine points out:

> *"We haven't received complaints about dust as we recently implemented a new dust suppression management strategy for which we received recognition as a best practice from the Minerals Council" (6).*

4.3.1.2 Housing and living conditions

Apart from environmental factors, another big concern discussed by numerous respondents relates to the migration of people to the area, their hope to find employment at the mine, and the impact on housing and living conditions. I established

that the mine address employee housing and living conditions through the Khumani Housing Development programme. However, with approximately one-third of individuals in the mine as contingent workers, housing issues in the area impact community morale.

Respondents indicate adverse impacts of the mine relating to the cost of housing, as put by one teacher:

> *"Our town has seen a large inflow of people moving to the area due to work commitments or even to find work opportunities. This has a big influence on the availability of housing and rental prices are extremely high. People pay up to R24 000 [monthly rent] for a 3-bedroom house in Bestwood. That is not even such a nice area, and it is far from all the shops. This creates a big challenge for teaching personnel because our salaries are not able to accommodate such high rental prices or to qualify for a bond for the houses in this town (13)."*

A mining official shared their concern in terms of the migration and housing issues through the following statement:

> *"Gamagara is the one municipality in the region that's got the greatest number of informal settlements. So they are having now informal settlement popping up in Gamagara. It's just rendering the municipality reactive because people grab land, they settle and then they demand services" (6).*

A concerning need identified in all three groups, namely community, mining and government, is the need for a local safe house for women and children. One respondent best described this:

> *"Important thing we need in this community is a safe house for women and children to address abuse in the Gamagara municipal area. There is no safe haven and I do believe this is a starting point where we can get all the role players involved and working together to create a place of safety. The process to get children out of a dangerous environment is so cumbersome and the children just eventually disappear" (12).*

4.3.1.3 Sub-theme 3: Employment

All respondents stated employment as the highest benefit experienced due to the presence of mining in the area. Nine respondents stated that, in their opinion, the positive impacts far outweigh the adverse effects:

> *"The basic needs of this country is supported by jobs. And it's mostly supported by the mining industry in our area, full stop…nothing comes without jobs, you know, jobs is the cornerstone of everything, if you don't have a job to support that, you don't really stand a chance"(4).*

Through interviews, I established the mine employs approximately 1800 full-time employees and have 2300 active contingent workers recorded on their access control system. The mine has approximately 600 registered local vendors from which they source services and goods. The mine does contribute significantly to the local economy and supports numerous livelihoods.

4.3.1.4 Sub-theme 4: Community Development

There remains a concern within communities regarding the future sustainability of local communities not related to the mining industry. One community respondent mentioned:

> *"I don't believe the mine look for generational solutions they look for solutions now. The mines can help somebody become an engineer, but they can also help somebody just get a basic job by helping them with a little bit of a training course here and there" (4).*

During interviews with mining officials, I established that the mine is involved in a continuous process to monitor and evaluate socio-economic conditions in the Gamagara Local Municipality. This was best described by a mining official who stated:

> *"We've profiled our community in 2021, through a community survey. And there's a lot of opportunities and there's a lot of issues as well. The biggest issue is bulk infrastructure. Electricity, they need to ramp up electricity, water supply, wastewater treatment and sanitation, and human settlement" (6).*

Various SLP and CSR programmes were described, which will be discussed in detail in a later theme. However, one statement by the mining official stood out:

> *"I think something that is not highly appreciated is our own internal capacity which we share when partnering with government, there's a lot of intelligence that we share with the municipality and local government. So through our relationships we ensure capacity*

building takes place, we do not keep the knowledge only for ourselves" (6).

The mine is understood to conduct extensive enterprise development programmes which benefit a multitude of communities from various sectors:

"Through our SMME programmes we have seen a lot of new companies who have started coming into the market due to the CSR projects, for example the cleaning company we have appointed for office cleaning. It is a local based company that completed the SMME training and skills programme to build their business and employ local residents" (1).

The interviews showed me the pride the mine officials took in their involvement in the local communities. However, the mining officials also shared their concerns about their impact on local communities. This was aptly described by one respondent who stated the following:

"The family unit sometimes can be disrupted because of the nature of our business, where we were operating in a remote area, and we can be separated from your family members. And because of the lack of opportunities for schooling quality, good quality schooling in our area, and healthcare facilities, in our remote areas, you find that we, you know, families can be separated for periods at a time" (8).

Another mine respondent added:

"If the mining companies weren't there, I'm not sure that the people that is currently there that they will survive in their own right, and the whole town cannot be self-sustaining. Because the mining industry is the only industry that's currently keeping up the economics of the towns. In the community you see a lot of new vehicles but also a lot of substance abuse. So the mining employees do receive good salaries, however a large portion of them either do not save for the future or they don't even worry about the future" (9).

Across the three participant groups, namely community, government and mining, all respondents agreed that mines create employment and that mining employees are very well remunerated concerning other private sector employees. Respondents recognise the impact of personal decisions and contributing factors leading to or influencing the adverse effects mentioned. Mining respondents stated their intention with development initiatives is to improve community livelihoods beyond regulatory compliance.

4.3.2 Theme 2: The mine's strategy to mitigate local adverse effects of mining

To explore the mine's contribution toward SLP and CSR initiatives, research participants answered questions pertaining to the availability of the mine's SLP and CSR programmes. Participants were requested to provide examples of the different SLP and CSR strategies and the successes and failures associated with the initiatives.

Through the interviews, I established that the mine invests in local infrastructure and addresses housing and living conditions through the Khumani Housing Development programme. Skills development training, bursaries, internships and mentoring initiatives ensure Khumani mine's compliance with Human Resource development requirements. The mine places a high premium on education, as was best described by one mining official:

> *"Education, it is a key that triggers everything. Early child development, it's very, very important, the research supports that the highest return on investment with education is in the early child development phase" (8).*

Another mine respondent corroborated this and indicated that the company is investing in a special needs school. The first school will be situated in Kuruman, and another possible school might be erected in Kathu in future. The school will focus on neuro-diversity challenges and cater to children ages three to twelve.

A mine respondent described the mine's strategy as follows:

> *"I think the overarching approach is our partnerships. We have a couple of partners, we've got the Department of Education, the municipality. We also have the provincial Department of Education, so is the district, the province as well as the local municipality. We know that if we invest, we need to look at a period of time where we do the investment and we need to design our exit strategy right at the beginning to ensure the beneficiaries take accountability and ownership of the projects we support" (6).*

The mine respondents agree that complying with the regulatory framework is at the heart of the company philosophy of creating shared value for the company and surrounding communities whilst improving people's lives. One respondent described the reason for implementing SLP and CSR initiatives as follows:

> *"To ensure that we have sustainable operations. If we operate optimally, we'll be able to create more profits, of which more profits will go to the community and its local government. So when we have a skilled community, we can source locally, we can build trust. And we can have local preferential procurement, and everyone can feel a part of our operation" (8).*

Regarding the responsibility of implementing SLP and CSR initiatives, the respondents seem conflicted as some individuals indicate that it is the responsibility of a specific department, such as Human Resources or CSR, whilst others believe successful implementation of SLP and CSR initiatives is the responsibility of the mine management. Some respondents believe that responsibility for SLP and CSR initiatives is an integrated process involving all three spheres of development: government, the private sector, and the community. A community respondent indicated:

> *“I think that's a company's responsibility in collaboration with the local government as they put the rules and regulations in place to ensure that where they do assist, the projects aren’t failing. And it's not because it will make certain politicians look good, but it's really talking to the need of the society or the social environment” (3).*

I established that Khumani mine does have a discretionary CSR fund from which projects are implemented over and above the regulatory framework requirements. A mine respondent indicated that they financially support the local water supplier through their operational budget due to the restrictions on groundwater dewatering. Therefore, they depend on the water supplier to ensure sustainable operations.

Examples of SLP and CSR initiatives are described by all respondents interchangeably. Mine respondents discussed their focus on skills development opportunities and SMME training as important initiatives in terms of their compliance with SLP and Department of Trade and Industry (DTI) requirements. As one mine respondent stated:

> *“The CSR Strategy is focused on Enterprise Development, infrastructure development and creating opportunities for SMME's through training and then giving the business opportunity to provide goods or services to the mine. So for example the SMME might be appointed on a smaller part of a contract. The OEM will then act as a mentor to the SMME to provide guidance and experience, teach them the skills that they need and then the opportunity to grow the scope of contract and responsibility of the SMME can take place” (1).*

This statement was corroborated by a community respondent who stated:

> *“There is a lot of development, a lot of training, a lot of workshops, we as entrepreneurs get invited to attend the workshops. Everything I know about business is what I have learned through the company’s program. They also sponsored our first embroidery machine, and they are really, really supportive” (12).*

The mine described bursaries and graduate programmes as some of their most successful initiatives. However, the company admits that a cleaning company and coffin-making factory were some of their biggest failures. I determined that according to the regulatory framework, Khumani mine engages with government and community members through the legislative Future Forum, held quarterly, with local government and organised labour representatives in attendance.

The company recently implemented a “Partners Roundtable” to improve relationships between the developmental stakeholders. This platform allows communities to receive feedback on company initiatives and allows the various attending stakeholders to provide input into future company strategies. The mine is currently at the start of its fourth approved SLP. The five-year strategy will focus on upgrading roads, water- and stormwater infrastructure, the installation of streetlights in low-income residential areas, procuring a new location for the waste landfill site, and a possible SMME park in Olifantshoek, as well as establishing special needs education centres. It is anticipated that traction will be made regarding the Kathu Industrial Park, where both mining service providers and other industries, such as agriculture, will be housed to ensure the optimal operation of the mining operations.

Community participants' responses regarding the company’s development initiatives are mostly positive. As stated by a community participant:

> *“Local youngsters would not be able to study a little bit further here in town if that wasn't for the mine. They would probably just stay at home to answer your question and they would be jobless” (7).*

However, I noted a lack of knowledge and understanding regarding community members’ participation and engagement in establishing the local IDP, which guides the mine’s participation through SLP commitments. This will be discussed in a later theme.

A community member raised a concern relating to the sustainability of initiatives implemented by the mine, stating that:

> *"They need to spend more time on their projects and ensure that the projects are actually running first before they pull back and leave the community to ensure the project's sustainability" (12).*

4.3.3 Theme 3: Relationships between local communities, local government, and mining companies

Participants were invited to elaborate on their relationships with the three categories regarding sustainable development initiatives to comprehend the relationships between the mine, government, and community stakeholders. I established that within all participant categories, there exist differing opinions.

From the mine's perspective, the respondents favoured more positive relationships between the mine and different entities. I established that the mine works closely with local government, municipalities, and humanitarian service providers such as the South African Red Cross Society. A local municipal respondent indicated a favourable relationship with the mine:

> *"We are very privileged with the mines in our area. I think the town in my 30 years that I have been here has changed and developed tremendously" (15).*

This sentiment was, however, not shared with other government officials. Respondents from the DOE stated their concerns that mining companies attract employees to the area with the promise of quality schools. However, the mines do not support the local schools to provide qualified learners for the future workforce. Respondents throughout the community and government participants agree that mines should get involved in local schools better to understand community challenges and potential initiatives for impactful involvement. Another government respondent raised their concern regarding their attempts to engage with the mine:

"It seems that there is a lot of policies and procedures and if you do not personally know someone on the mine to open doors for you, you really struggle to make any progress" (13).

Some community respondents provided more favourable responses regarding their relationship with the mine. They acknowledge the support provided to local government and municipalities. SMME beneficiaries detailed the assistance they are provided regarding personal skills development, financial support to initiate a business, vehicles and equipment. When asked to elaborate, the individual added:

"The mine is sponsoring a leadership mentoring program for us to attend and improve our skills in leadership and company management for the next seven months" (7).

Community respondents are, however, also concerned about the mine's relationship with local government and municipalities, as one participant indicated:

"They should not make the local government more ineffective by taking over their responsibilities and not keeping government accountable" (3).

4.3.3.1 Sub-theme 3.1: Community participation in SLP and CSR strategy development

With the differences in opinions regarding government's and community members' relationship with the mine, the researcher delft further into community participation regarding SLP and CSR strategy development to understand the various positive and non-existent relationships reported. Respondents were asked to elaborate on the roles of the three categories, namely government, community and the mine, regarding SLP and CSR strategy development.

The mine views the IDP as the guiding principle in starting their initiatives and is of the opinion that community members have an authoritative role in establishing local IDPs. The mine officials believe that community members are afforded sufficient opportunity to provide input into their local IDPs. However, the mine is aware that communities do not necessarily support guidance provided by municipalities in terms of initiatives:

> *"We in the past experienced where we've delivered on the project and it was exactly like the municipality guided us on, however, the community says there is other needs and would sometimes even vandalise some of the initiatives because they do not support the projects" (6).*

One mine respondent declared:

> *"For each SLP, we would draw up a memorandum of agreement. And that is our framework of how social labour plan projects are implemented. It sounds like an easy thing to get into place. But it's not easy. It's not easy to get these agreements. It is important to reach that point in partnerships where you have that maturity where you can have that understanding of what needs to be done and how it will be done" (8).*

When asked during a follow-up discussion for access to the mentioned agreement, the mine respondent was unable to provide evidence in writing. I suspect the mine respondent referred to the GLM council resolution as an agreement. A junior government respondent, when questioned on their community engagement processes, was quick to point out:

> *"Stakeholder engagement drive, they usually do engage with the community at the necessary forums and community leaders. At the community platforms you do have your political parties there, you have your community leaders, the traditional leaders. And just*

everyone that is involved, your businesspeople in the affected community. So they have roadshows on that" (14).

I am concerned about the authenticity of community engagement procedures in the Gamagara local communities. Community respondents regularly voice their opinions; however, they are not observed in the local IDP. Community engagement forums are scheduled and cancelled on short notice. One community respondent stated:

"The councillors want handouts, and they know the mines need to spend their money in the community, and they try to make it more difficult. So, I think that they have their own agendas for their own purposes" (3).

4.3.3.2 Sub-theme 3.2: Community request for change in mine's approach toward community engagement

The researcher wished to investigate practices that will be successful in the local community to improve community participation in sustainable development initiatives. Respondents were asked to describe how they would address engagement between the entities and what advice they might have to assist the mine in doing things differently.

The respondents provided diverse opinions on improving community engagement and possible future sustainable development initiatives. Community respondents provided a wealth of knowledge and examples to improve the mine's engagement with the community and suggestions for future initiatives. One community member stated:

"The mining companies do not communicate amongst each other, everyone try to do their own social development and things are not coordinated well. If companies can combine and work together the joint effort will have a much bigger and more far-reaching impact than any one company can do alone" (11).

One community member mentioned:

> *"I would love to see the mines get involved with the non-profitable companies. I would love to see the mines getting more involved, in a sense the same way they get involved with developing entrepreneurs and SMME's" (12).*

With regards to some of the unintended consequences experienced due to mine employees' high remuneration packages, community members requested that the mines consider financial literacy workshops to be implemented in their annual orientation programmes. This was to ensure employees spend their money responsibly and make enough provision for their future, especially when they retire.

In terms of community engagement policies, community respondents believe that the mine should not entertain every whim and request of local government officials. They advised that as the communities of Dibeng and Mapoteng are considered to have lower levels of education, the best practice for engagement would be to conduct roadshows and discuss initiatives with the communities in a manner they can relate to and not use too much jargon. The importance of including religious leaders in community projects was highlighted by respondents from both community and government participants, as one respondent mentioned:

> *"Throughout the world, churches are the only organisations who has the enthusiasm of volunteers, who are passionate about their communities to make a change. Involve your passionate local volunteers to ensure you have honest representative view of what needs there really is to address" (11).*

Responding to an invitation to propose future initiatives, respondents focused on activities which could assist in keeping children busy after school, assist with homework, and teach children about entrepreneurship from an early age. Community members specifically request that mining employees act as mentors in their communities to expose local youth to possible careers in the mining environment and

create better leaders and contributing citizens for communities in the surrounding areas. As one community member stated:

> *"It takes a journey to change a community" …"don't just hand out food parcels or blankets" …[w]alk the journey with the community which you identified for development" (12).*

Respondents from the community and government noted their concerns regarding the mine's dedication to monitoring and measuring the impact of SLP and CSR initiatives. They believe that mines do not return to their projects to determine the impact of their initiatives or whether the beneficiaries are still applying the skills transferred. Concerns on the location of initiatives were also discussed, with individuals thinking that assistance is only provided to rural schools in the district and not to schools that employees' children attend closer to the mine.

4.3.4 Theme 4: After the mine closes

The researcher sought to understand public knowledge and understanding about mine closure and, for that reason, enquired from participants to elaborate on what would happen if the mine closed, as well as if a plan had been shared with communities if the mine closed down. All three respondent groups acknowledge that mine closure would have a detrimental impact on the surrounding communities. A community respondent mentioned the following:

> *"It would be disastrous. It could be a humanitarian crisis. It's the mines that provide an absolute living, we should hope for more mines to open up and for the mining industry to expand" (4).*

A government respondent corroborated this statement:

"It would be devastating, there will be an increase in poverty, an increase in crime. Where will all the people go. They have to go somewhere to find a job to support their livelihood" (11).

I established that the mine has a Mineral Resource Rehabilitation plan, supported by the Assmang Nature Conservation Trust, to ensure the company can implement rehabilitation and environmental management practices required to ensure community safety after mine closure. Through the mine's quarterly Future Forum sessions, management share all regulatory information with local government and organised labour to ensure they are aware of possible mine downscaling, retrenchments and eventual mine closure. The importance of sustainable development is reiterated by a government respondent, who stated:

"If you can get the town sustainable in other industries such as solar farms or manufacturing … it would reduce the impact but at this stage the community is still very dependent on the mine itself. Closing of the mine is discussed at numerous occasions during management meetings at the municipality. So at this stage I think they are 100% aware that the possibility will always exist that the mines could close down, and what the future of the town would be in the event that this happen" (15).

As much as all the participants agree regarding the extent of the impact the mine closing would have on surrounding communities, respondents are confident that the Khumani mine will not close in the near future. As a mine respondent mentioned:

"We still have 25 years to operate, let's work together to identify opportunities" (6).

4.4 Chapter conclusion

Mining companies play an integral part in contributing to the socioeconomic conditions of the areas in which they operate. Khumani mine provides significant employment opportunities in the Gamagara Local Municipality, which also brings about other unintended adverse impacts on the local community. The mine's sustainable development initiatives focus on skills development, bursaries, internships and mentoring. The mine places a high premium on education and local SMME development. Table 7 provides a summary of the key findings from this chapter and aligns the findings with the research objectives

Table 7: Summary of key findings of the chapter

Research Objective	Themes	Findings
Examine how mining companies affect local communities and local towns	Theme 1: The effects of mining on local communities. Sub-theme 1: Environmental Sub-theme 2: Housing and living conditions Sub-theme 3: Employment Sub-theme 4: Community development	The mine impacts local communities by providing employment, accommodating employees in the vicinity, and impacting community living conditions. Environmental concerns are raised, and sustainable community development is highlighted as ineffective.
Examine the plans mines implement to mitigate adverse local effects of mining	Theme 2: The mine's strategy to mitigate local adverse effects of mining	The mine's SLP and CSR strategies are based on the local IDP as a reflection of community opinion and agreed needs. As the mine has identified shortcomings in the municipal processes regarding SLP engagement, the mine has initiated a "Partners Roundtable" forum to increase community participation and engagement in sustainable development initiatives. In terms of the sustainable initiatives implemented by the mine, respondents are concerned that the mine does not monitor the impact of their initiatives, nor do they revisit closed-out projects to determine if skills transferred are still utilised to ensure the sustainability of the initiatives.

Determine the relationships between local communities, local government, and mining companies.	Theme 3: Relationships between local communities, local government, and mining companies. Sub-theme 1: Community participation in SLP and CSR strategy development Sub-theme 2: Community request for change in mine's approach	Relationships between the mine and various participants are not described positively, and various requests and suggestions are related to improving the mine's approach toward community participation and engagement.
Explore the opinions relating to mine closure	Theme 4: After the mine closes	Respondents agree about the detrimental effects mine closure would have on employees and impacted communities. The mine has the necessary plans and funds to ensure compliance to regulatory requirements in the event of mine closure and to ensure community safety from adverse environmental effects.

The following chapter will provide a conclusion and recommendations for the study.

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The previous chapter provided the empirical findings obtained through a qualitative study investigating the impacts of mining on the community, specifically referring to the Khumani mine's interventions to address adverse effects on surrounding communities. This chapter portrays the relationships between the conclusions from the findings discussed in Chapter 4, with the literature review in Chapter 2 and the overview of Legislative influences in the South African mining industry in Chapter 3. This chapter concludes the study by providing recommendations for each objective based on the findings and shortcomings identified.

The study revealed that the Khumani mine contributed to a measurable increase in socio-economic development in the Gamagara Local Municipality through employment and their contribution through SLP commitments. The mine ensures responsible housing and living conditions through its Khumani Housing Development programme, which also acknowledges "home" to be in rural areas further away from the mine and local municipal areas. The mine is aware of its contribution toward some of the unintended, adverse effects experienced in the local community and attempts to address this impact through SLP and CSR initiatives. The mine relies on the local and district municipal IDPs to guide them in determining the needs and priorities of the communities. Khumani mine recently implemented a "Partners Roundtable" to improve community engagement and participation.

The sections discussed below provide insight into the most prominent findings based on the research objectives listed in Chapter 1.

5.2 Main findings and recommendations according to objectives

Mining companies directly impact surrounding communities, whether intended or not. Mining companies are required in terms of the MPRDA to develop and implement

SLPs within their area. This study portion contains the research objectives, accompanying findings from the related chapters, and recommendations for improved sustainable development.

5.2.1 Objective 1: Examine how mining companies affect local communities and local towns

The literature reviews of Chapter 2 provided oversight of the possible impacts and contributions mining companies make in their surrounding communities. The establishment of the Khumani mine in the Gamagara Local Municipal area forms part of the dynamic mining boom experienced in the area since 2009. Respondents agree that employment is the biggest benefit for all communities due to the presence of mining companies in the area. The communities in town experience the elements of mining boom cycles. Although Khumani mine supports its workforce's housing and living conditions through the Khumani Housing Development programme, community members are subject to high housing costs and service rates. Substance abuse and marital breakdowns are attributed to employees' high remuneration packages and their separation from their families.

Community respondents are concerned with the quality and quantity of potable water available to local communities in light of the increased demand for water supply from developing mines in the area. Although Khumani mine is required in terms of legislation to contribute to the local community in terms of their SLP commitments, community members are concerned about the sustainability of initiatives and programmes as they deem the mines' exit strategy does not provide sufficient time to ensure projects are sustainable before they withdraw their support.

5.2.1.1 Recommendations

5.2.1.1.1 The mine is aware of its impact on surrounding communities due to the large-scale employment created. It is recommended that the mine address issues in the early childhood development of local education facilities, improve awareness campaigns, and support programmes for financial planning and substance abuse issues.

5.2.1.1.2 To address the environmental concerns and perceptions that the mine is responsible for the lack of potable water in the region it is recommended that the mine proactively communicate water supply challenges with employees and facilitate collaborative strategic sessions with community members to increase understanding in terms of responsible water management. These activities could improve the mine's active involvement in their surrounding communities and address problems it is perceived to cause or contribute to.

5.2.1.1.3 The importance of training and capacity building in individuals involved in project implementation is considered of paramount importance to ensure sustainable development. It is recommended that the company ensure skills transfers are measured and monitored to ensure the efficacy of training and sustainable application after training is completed.

5.2.2 Objective 2: Examine the plans mines implement to mitigate adverse local effects of mining

Chapter 3 of this study describes the regulatory framework which guides mining companies in achieving and maintaining their license to operate. Khumani mine invests in local bulk services and infrastructure. Skills development training, bursaries, internships and mentoring initiatives ensure Khumani mine's compliance with Human Resource development requirements. The mine places a high premium on education and is committed to establishing two special needs schools in the area. The mine views its compliance with regulatory requirements as at the heart of the company philosophy of creating shared value for the company and surrounding communities. The mine does have a discretionary CSR fund from which they support projects and initiatives over and above their contribution toward regulatory framework commitments.

The mine described bursaries and graduate programmes as some of their most successful initiatives, with a cleaning company and coffin-making factory states as their biggest failures. Khumani mine engages with government and community

members through the legislative Future Forum, held quarterly, with local government and organised labour representatives in attendance.

The company recently implemented a “Partners Roundtable”, which aims to improve relationships between the developmental stakeholders to provide communities with feedback on company initiatives and allow stakeholders to provide input into future company strategies.

There is a concerning lack of knowledge and understanding regarding community members’ participation and engagement in establishing the local IDP, which guides the mine’s participation through SLP commitments. The accountability within the mine for implementing SLP commitments also seems uncertain.

5.2.2.1 Recommendations

5.2.2.1.1 The mine uses CSI and CSR interchangeably and carries different meanings for different people. It is recommended that the company investigate and define its understanding of CSR.

5.2.2.1.2 Individuals in all three participant groups poorly understand the concept of SLP and CSR. The company could spend time during their various meetings with government and community stakeholders to explain the differences in the concepts and educate stakeholders on their roles in the different concepts.

5.2.2.1.3 Designing sustainable development initiatives in collaboration with community members could lead to a more meaningful impact in the identified communities. It is recommended to provide an opportunity for community members to show the mine what initiatives they would implement if they had the necessary funds and support.

5.2.2.1.4 Determining the impact of sustainable development projects remains a contentious subject. Some community respondents believe that the mine is unaware of what happens in projects during the implementation phase. It is recommended that the mine monitor and measure sustainable development initiatives to determine best practices to follow or learn from problems and mistakes experienced.

5.2.3 Objective 3: Determine the relationships between local communities, local government, and mining companies

In Chapter 2, some literature reviews highlight the power dynamics often present between stakeholders in fulfilling regulatory framework requirements. Khumani mine established good relationships and worked closely with local government, municipalities, and humanitarian services providers such as the South African Red Cross Society. The mine respondents believe that they have good relationships within the communities of GLM; however, respondents do not share this sentiment with the DOE, who is of the opinion that the mine only gets involved in projects they have a personal interest in.

SMME beneficiaries describe their relationships with Khumani mine as professional and highly beneficial for the participants and the mines. SMME development contributes towards the company's aim to source and supports local businesses. Community members are concerned that Khumani mine should not make the local municipality even more ineffective through their assistance and not keeping municipal managers accountable for their contribution toward local services and infrastructure.

As per the regulatory framework provided in Chapter 3, the mine views the IDP as the guiding principle in starting their initiatives and is of the opinion that community members have an authoritative role in establishing local IDPs. The mine officials believe that community members are afforded sufficient opportunity to provide input into their local IDPs. However, the authenticity of community engagement procedures within the Gamagara communities is questioned as residents voice their opinions on development projects; however, these contributions are not observed in the local IDPs.

Community respondents requested activities which could assist in keeping children busy after school, assist with homework, and teach children about entrepreneurship from an early age. For mining employees act as mentors in their communities to create better leaders and contributing citizens for communities in the surrounding areas.

Community and government respondents are concerned with the mine's dedication to monitoring and measuring the impact of its initiatives. They believe that Khumani mine does not return to their projects to determine if sustainable development was achieved.

5.2.3.1 Recommendations

5.2.3.1.1 The mine should review its stakeholder matrix to ensure sufficient representation by the local community and traditional and religious leaders at engagement forums to ensure that views of the IDP adopted are not only that of the local government officials but that community voices are heard.

5.2.3.1.2 As a responsible party for SLP implementation, the mine should continue to directly engage with community stakeholders through their engagement forums. However, ensure a balance between the involvement of government and community stakeholders. This will allow community stakeholders to improve engagement at both the mine and government forums to ensure they increase their participation in developing and implementing SLP initiatives in the region. In addition, increased community stakeholder participation in SLP implementation could guide them to understand the importance of their participation in IDP development and ensure that municipal officials are held accountable for responsible IDP development.

5.2.3.1.3 The roles and responsibilities of community stakeholders in SLP and CSR development and implementation should be clearly defined. A stakeholder engagement model is recommended to be developed to portray the roles and responsibilities of the community, local government and the company.

5.2.3.1.4 The mine should improve its relationships with local community groups, non-profit organisations, religious leaders and school governing bodies to ensure they obtain a holistic view of the community within which they operate.

5.2.4 Objective 4: Explore the opinions relating to mine closure

Chapter 4 of this study recognized the positive local economic impacts achieved by the Khumani mine through employment and economic support of goods and services. Very little evidence of impact and sustainability was available from the projects implemented by the mine. Beneficiaries spoke highly of the contributions received from the mine's development programmes. However, the mine identifies the contracted cleaning company, which employs over 180 individuals, as one of its biggest failures due to its inability to become self-sustainable.

Respondents agree about the detrimental effects mine closure would have on employees and impacted communities. The mine has the necessary strategies and funds to ensure compliance with regulatory requirements during mine downscaling or eventual closure and community safety from adverse environmental effects.

5.2.4.1 Recommendations

5.2.4.1.1 The mine should implement monitoring and measuring resources and activities to determine the efficacy and impact of their sustainable development initiatives. Information derived from this could ensure up-to-date reporting on project progress and efficiency, determining best practices for implementation and stakeholder participation and ownership to replicate in future initiatives to reduce challenges and improve community adoption.

5.2.4.1.2 The mine should assist and educate SMMEs in diversifying their product or service offering to different industries, namely agriculture, renewable-energy, and technology, to decrease their dependence on the mining industry.

5.2.4.1.3 The mine should design an infographic on the processes involved in downscaling and closing the mine. This information should be shared with employees, communities, and government representatives at the engagement sessions and repeated annually to ensure understanding.

5.3 Recommendations for future studies

This study provides a first step in determining the Khumani mine's impact on surrounding communities and the initiatives they implement to address some of the impacts. Due to the small sample size of the participants, the results from this study should be treated with caution.

Future research could examine community participation in the Gamagara Local Municipality's IDP development, as well as the measuring and monitoring of the impact of SLP initiatives on local communities. Investigating the informal economy in the JTG district could shed some light on women's unpaid work in this area and how this relates to women's challenges to participate in the mining industry.

The findings provided are the product of a single case study. Future research could investigate other mines in the area to determine their contribution toward SLP commitments in the region.

5.4 Conclusion

This study aimed to determine the impacts of the Khumani mine on the communities of Gamagara Local Municipality and how they attempt to address adverse impacts through implementing SLP commitments. The study sought to understand the Khumani mine's relationship with developmental stakeholders and explored the opinions relating to mine closure.

Khumani mine is aware of its positive and adverse impacts on local communities. Through their company philosophy of creating shared value for both the company and communities, the mine implements both SLP and CSR initiatives to address their adverse impacts and create sustainable development. Community members remain concerned about the efficacy and sustainability of initiatives implemented by the mine and raised suggestions for the mine to improve their engagement with and support of local communities. The mine must improve stakeholder engagements to ensure SLP initiatives effectively operate beyond the life of the mine. This will ensure effective skills transfers, and that their SLP and CSR initiatives are audited and monitored for a determined period after handover to ensure sustainability and develop best practices.

The mining industry is abrasive and disrupts natural landscapes, local communities, and their economies. Although social disruptions are understood to even out over time, mining companies must ensure that they capacitate impacted communities to support their livelihoods sustainably. The successful implementation, diversification and continued monitoring of sustainable development initiatives can ensure that the economic benefits experienced through mining boom cycles can support host communities during lower commodity prices and eventual mine closure.

The last chapter of this dissertation summarizes and concludes the study by reviewing the main findings and providing recommendations in line with the study's objectives. Table 8 summarises the key findings and recommendations from this study.

Table 8: Summary of key findings and recommendations of the study

Research Objectives	Findings	Recommendation
Explore literature pertaining to mining operations	Findings from the literature summarized in Chapters 2 and 3	Recommendations aligned with what was found in the study.
Examine how mining companies affect local communities and local towns	The mine impacts local communities in terms of providing employment, accommodating employees in the vicinity, and impacting community living conditions. Environmental concerns are raised, and sustainable community development is highlighted as ineffective.	Address issues in early childhood development and local education facilities, and improve awareness campaigns and support programmes for financial planning and substance abuse issues; communicate efforts in terms of responsible water management; ensure skills transfers are measured and monitored to ensure the efficacy of training provided; ensure sustainable application of skils after training is completed.
Examine the plans mines implement to mitigate adverse local effects of mining	The mine’s SLP and CSR strategies are based on the local IDP as a reflection of community opinion and agreed needs. As the mine has identified shortcomings in the municipal processes regarding SLP engagement, the mine has initiated a “Partners Roundtable” forum to increase community participation and engagement in sustainable development initiatives. In terms of the sustainable initiatives implemented by the mine,	Define terminology relating to SLP and CSR; educate stakeholders on the difference between SLP and CSR. Define stakeholders' roles in the different concepts; design sustainable development initiatives in collaboration with community members; determine the impact of sustainable development projects; determine best practices to follow or learn

	respondents are concerned that the mine does not monitor the impact of their initiatives, nor do they revisit closed-out projects to determine if skills transferred are still utilised to ensure the sustainability of the initiatives.	from problems and mistakes experienced.
Determine the relationships between local communities, local government, and mining companies.	Relationships between the mine and various participants are not described positively, and various requests and suggestions were related to improving the mine's approach toward community participation and engagement.	Review stakeholder matrix to ensure sufficient representation by local community, traditional and religious leaders; directly engage with community stakeholders to ensure a balance between the involvement of government and community stakeholders; define roles and responsibilities of community stakeholders; improve relationships with local community groups, non-profit organisations, religious leaders and school governing bodies
Explore the opinions relating to mine closure	Respondents agree about the detrimental effects mine closure would have on employees and impacted communities. The mine has the necessary plans and funds to ensure compliance to regulatory requirements in the event of mine closure and to ensure community safety from adverse environmental effects.	Implement monitoring and measuring resources to determine the efficacy and impact of their sustainable development initiatives; assist and educate SMMEs in diversifying their product or service offering to different industries; regularly communicate company performance, downscaling and closure of the mine.

The study concludes that authentic relationships, effective stakeholder engagements, and monitoring and measuring throughout the implementation of SLP and CSR initiatives could contribute toward improved community participation and ownership of sustainable development.

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APPENDIX A: ETHICAL CLEARANCE

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA
UFS UV

GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

13-May-2022

Dear Prof Johann Marais JGL

Amendment Approved

Research Project Title:
Mining and community

Ethical Clearance number:
UFS-HSD2021/0256/293

We are pleased to inform you that your amendment application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for notifying the ethics committee of the changes/amendments that have been made to your study; we wish you the best of luck and success with your research.

Please keep in mind that ethical clearance is valid for 12 months only and continuation reports must be submitted to keep the approval valid.

Yours sincerely

Dr Adri Du Plessis
Chairperson: General/Human Research Ethics Committee

Dr Adri du Plessis
Digitally signed by Dr Adri du Plessis
Date: 2022.05.13 15:22:47 +02'00'

205 Nelson Mandela Drive
Park West
Bloemfontein 9301
South Africa

P.O. Box 339
Bloemfontein 9300
Tel: +27 (0)51 401 9337
duplessisA@ufs.ac.za
www.ufs.ac.za

APPENDIX B: PERMISSION FROM KHUMANI MINE

Requesting Letter

TO: **Mark Oosthuizen**
Senior General Manager
DATE: **14 June 2021**
RE: **Request for permission to undertake an academic research study at Khumani Mine**

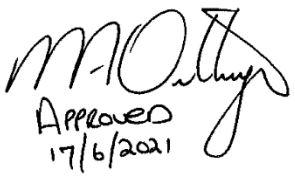
Title of Study: Understanding the socio-economic influences of mining on communities: A Case Study of Khumani Mine

My name is Elizna Badenhorst. I am a part time student (No.2002006647), in the employment of Khumani mine, undertaking an academic research study with the abovementioned title. The study is in fulfilment of the academic requirements for Master's degree in Development Studies at the University of the Free State.

The study aims to collect data through interviews with government and mining officials with the aim to contribute to a body of work on the effects of mining on communities and development. Essentially the study documents and describes the programmes implemented by Khumani mine in the Gamagara Local Municipal area as per regulatory compliance structures and corporate social responsibility strategy. Data collected in this regard will be instrumental towards attaining the objective of the study encapsulated in the research title.

Taking the above into consideration, this letter requests permission to permit the researcher to conduct semi-structured interviews with government and mining officials as well as relevant community leaders. The researcher vows to adhere to professional and ethical principles throughout this study as well as adherence to the POPI Act, in order to guarantee privacy and confidentiality. The researcher expects the study to be beneficial to the mining industry and surrounding communities. On completion, the findings of the study will be made available to Khumani Mine and other interested entities upon request. Furthermore, the researcher will publish the findings of the study in an academic thesis as well as academic journals.

Your assistance and cooperation is thankfully appreciated.
Elizna Badenhorst



APPENDIX C: INFORMED CONSENT FORM

CONSENT TO PARTICIPATE IN THIS STUDY

I, the undersigned,

_____ (*participant's full names to be included*), (the "**Participant**")

confirm that I voluntarily agree to participate in the research study referred to as the

Mining and community (the **"Study**") and which Study is being conducted by

Prof Lochner Marais and his students:

Elizna Badenhorst

Siphiwe Mathe

MF Pheeloane

Patrick Dzimiri, (the "**Researchers**").

I, the undersigned Participant, further confirm that–

1. the Researchers have explained the nature, procedure, potential benefits and anticipated inconvenience of my participation in the Study;
2. I have read (or had explained to me) and understood the Study as explained in the attached information sheet;
3. I have had sufficient opportunity to ask questions and am prepared to participate in the Study;
4. I understand that my participation in the Study is entirely voluntary and that I am free to withdraw at any time without penalty (if applicable);
5. I voluntarily provide the UFS and the Researchers with my personal information and consent to the UFS and the Researchers collecting, disclosing and processing my personal information in order to conduct the Study and any related activities in relation thereto;
6. I hereby acknowledge and confirm that I understand the purpose for which the UFS and the Researchers may collect, store, use, delete, destroy, outsource, transfer or otherwise process, as the context and circumstances may require and as contemplated in terms of POPIA, my personal information as set out herein;

7. I am aware that the findings of the Study will be anonymously processed into a research report, journal publications and/or conference proceedings and that my personal information will be aggregated and deidentified at such stage;

8. I also give the UFS permission to share, without notification, the collected data with other researchers at the UFS or other Higher Education Institutions. This permission is dependent on the same principles of ethical research practices, anonymity/confidentiality, safekeeping of information, and other issues listed above applying.

I, the Participant, agree to the recording of the interview.

Full Name of Participant: _____

Signature of Participant: _____ Date: _____

Full Name(s) of Researcher(s): _____

Signature of Researcher: _____Date: _____

APPENDIX D: INTERVIEW GUIDE FOR GOVERNMENT PARTICIPANTS

Interview schedule – government officials

1. Explain what the positive effects of mining in your area are/were. (Get the interviewee to list these and discuss each of the issues in the list in detail)
2. Explain what the adverse effects of mining in your area are/were. (Get the interviewee to list these and discuss each of the issues in the list in detail)
3. If mine still open: Are you aware that the mine has an SLP? Do you know what the content of the SLP? Provide detail if you know. If you do not know, provide reasons why you do not know.
4. If mine still open: Does the mine have a corporate responsibility programme? Do you know what the criteria are for funding CSR funds? What are the intended benefits to whom?
5. Were the SLP and CSR strategy developed with the community? Explain the process.
6. Were the SLP aligned to the IDP? Give examples?
7. What is the difference between SLP funds and CSR funds?
8. How would you explain the relationship between you (the government department or the sphere you are working at) and the mine/s?
9. In your opinion, what contribution does/did the mine/s make to the area through their CSR or SLP?
10. What would you like/have liked to see the mine/s do differently?
11. Do you think the mine/s focus/use to focus on community development? Why? Why not? If yes, what do/did they do and what are/were the successes?
12. What will happen if the mine would close down? OR What happened after the mine closed down? Has a plan been shared with the community?
13. Were there conflict between the mine and the community? What are/were the elements of these conflicts?

APPENDIX E: INTERVIEW GUIDE FOR MINE PARTICIPANTS

Interview schedule – mining officials

1. Does the mining company have an approved SLP?
2. Does the mining company have a CSR Strategy?
3. How would you describe the socio-economic situation of the surrounding communities?
4. Provide evidence of the contents of the above programmes in the SLP or CSR strategy. Is the content of your SLP / CSR programme different from what you do in other countries? Why? What are the intended benefits to whom?
5. What do you think are the positive effects you have on the nearby community? (Get the interviewee to list these and discuss each of the issues in the list in detail)
6. What do you think are the adverse effects you have on the nearby community? (Get the interviewee to list these and discuss each of the issues in the list in detail)
7. Who is responsible for ensuring that the mandates of the SLP strategies and the CSR programmes are met?
8. What is the company's overall approach toward ensuring sustainable projects? Provide detail
9. Who does assessments and who implements SLP and CSR programmes? What do you think have been success and failures? Provide detailed reasons.
10. What is the relationship between your company and sustainable development in the surrounding area? Provide reasons for the answer?
11. What does mine contribute to the surrounding communities? Why does the mine do this?
12. What kind of sustainable development projects does the mine have in the communities and what are the future development projects for sustainable development?
13. What are the roles of the communities in your projects delivered by your company?

14. What will happen if the mine would close down? Has a plan been shared with the community?
15. Is there conflict between the mine and the community? What are the elements of these conflicts?

APPENDIX F: INTERVIEW GUIDE FOR COMMUNITY PARTICIPANTS

Interview schedules – community leaders and NGO representatives

1. Explain what the positive effects of mining in your area are/were. (Get the interviewee to list these and discuss each of the issues in the list in detail)
2. Explain what the adverse effects of mining in your area are/were. (Get the interviewee to list these and discuss each of the issues in the list in detail)
3. How would you describe the socio-economic situation of the surrounding communities?
4. If mine still open: Are you aware that the mine has an SLP? Do you know what the content of the SLP? Provide detail if you know. If you do not know, provide reasons why you do not know.
5. If mine still open: Does the mine have a corporate responsibility programme? Do you know what the criteria are for funding CSR funds?
6. What is the difference between SLP funds and CSR funds?
7. How would you explain the relationship between you (the government department or the sphere you are working at) and the mine/s?
8. In your opinion, what contribution does/did the mine/s make to the area through their CSR or SLP?
9. What would you like to see/have seen the mine/s do differently?
10. Does/did the mine/s support any community projects? If no, why not? If yes, what type of projects? Are/were these successful / failure? Please evaluate these attempts by the mines.
11. What should the mine/mines change in their approach to the community?
12. What will happen if the mine would close down/happened when the mine closed down? Has a plan been shared with the community?
13. Is there conflict between the mine and the community? What are the elements of these conflicts?

APPENDIX G: INTERVIEWEE RECORDING SYSTEM

Interviewee number	Government, mine or NGO	Gender	Years of experience in current position	Nature of involvement with the mine

APPENDIX H: DECLARATION OF PROOF READER

DECLARATION OF PROOFREADER

25 November 2022

To whom it may concern

This is to certify that I lightly language-edited the dissertation of Elizna Badenhorst manually. The author affected the changes. In this way, linguistic excellence and the author's ownership of her text were ensured.

Sincerely

Mrs Hesma van Tonder