

WITS
UNIVERSITY



WBS Wits
Business
School
Sculpting global leaders

The social and economic impact of mining in the Brits area of Madibeng municipality

Herbert Leburu Pelo

Student number: 677042

**A research article submitted to the Faculty of Commerce, Law and
Management, University of the Witwatersrand, in partial fulfilment of the
requirements for the degree of Master of Business Administration**

Johannesburg, 2017

**Research Supervisor:
Dr Michael Shaw**

ABSTRACT

Mining has a potential to contribute to economic growth of any country. Mining deposits in the South African Bushveld region can benefit the entire country. There are reserves for PGM's and Chromate. Mining conglomerates have over the years earned profits from mining operations in the region. South Africa has the most unequal society in the world. The poverty levels remain very high. The mining sector remains the most unstable sector with labour unrest due to salary disputes or demand for better working conditions of service in the last 5 years which affects production and ultimately revenue. With mining being a mostly export market, the price of commodities are affected by the continuous fluctuation of the local currency (Rand).

The Social Labour Plans (SLP) approved by Department of Mineral Resources as part of mining licence applications are not fully adhered to by the mining companies. Mining communities and mining companies continue to have strained relationship due to mining companies not keeping up to their promises contained in SLP. The communities embark on marches that halt production demanding employment and infrastructure development from the mines. The mining communities still live in terrible environments with a need of basic services.

A desktop analysis was done by collecting data and by using qualitative and quantitative methods to evaluate conduct of mining companies. The affected areas were visited and observations were made on developments in immediate affected places. Mining is governed by regulations such as Mining Charter, Mineral and Petroleum Resources Development Act (MPRDA), environmental laws and most belong to the Chamber of Mines all of which encourage and support Corporate Social Responsibility (CSR) to the communities mostly affected by their mining operations. Mining companies contribute a minimum towards CSR and maximise their profit. All the mining companies must create a single trust which they will donate funds into. The trust must be used to fund infrastructure development in the Brits area. Mining management must be held accountable for their failure to deliver on their SLP in line with relevant SA legislation.

DECLARATION

I, Herbert Leburu Pelo, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other University.

Herbert Leburu Pelo

Signed at.....**Sunninghill**.....

On the.....**13**.....day of.....**December**.....20..**17**.....

DEDICATION

This work is dedicated to my maternal grandmother Mantsho Violet Pelo whose unconditional love and support has been my courage and drive to achieve even greater things in life. This has been a tough journey but worth every effort. I also draw inspiration to study further from my mother, who despite against all odds studied further. To my wonderful, beloved 3 little daughters, Atlegang, Onthatile and Remofilwe my work and achievements must inspire you in future.

To the late Ms Fundiswa Agnes Nyaphisi, no amount of words can describe how you touched my life in a great way and changed my view on how to move one step forward and one day at a time. You were a blessing in my life and a God sent. You were very special. This work and achievement is dedicated to you. Your support didn't go unnoticed. May your soul continue to rest in peace and your spirit live to eternity.

ACKNOWLEDGEMENTS

My sincere gratitude goes to the all mighty for a gift of life and wisdom over the years. I am grateful for all people you sent my way since this journey started. Special mention to the following people:

- 2016/17 Part-time cohort and my 1st MBA syndicate 3 members. You guys clicked from the 1st day and have an award to show for it. Simphiwe Zondi, Thando Dube, Sarah Blignaut, Neo Baikgaki, Moetlo Moganedi, Viresh Prahalath and Maurice Gil, we were the winning team. Remain humble!
- Phehello Mkhabela, a friend and kind person you are. You became a valuable acquaintance. I am thankful of your friendship and tutoring lessons. May God bless you abundantly.
- My study supervisor Dr Michael Shaw, I thank you for your patience and guidance, for believing in my vision and supporting it. Without your insight into this, I couldn't have made it this far. You have been understanding throughout.
- Lucious Tlou thank you for taking me through the villages in the west of Brits. The information you imparted was very valuable for my research.
- Thando Dube thanks for being there when assignments due-dates were upon us. You shared information unselfishly. We walked this journey together.
- Simphiwe Zondi you were always a step ahead and provided and shared information. Thank you mate.
- Cammy Mkhize, thanks for being a study companion on some tight due dates. Thanks for sharing information and being that friend I can talk to.
- Sebenzile Magagula, thank you for your support and encouraging me to reach for the stars when my energy levels dropped low. You gave me courage to draw my last strength. Those Saturday mornings having to wake up and attend long classes. I needed to draw deeper.
- To Masetlhare Phalane thanks for being there for me when I needed your help and invaluable input.
- To all my friends that supported my work, you are too many to name here but know that I do acknowledge your contribution to my work and success. It's through God's grace.

SUPPLEMENTARY INFORMATION

Nominated journal: Law, Democracy and Development

Supervisor / Co-author: Dr Michael Shaw

Word count [†]: 15 527

Supplementary files: [Statistical SA 2016 Community Survey](#)
[Interview transcripts](#)

Table of Contents

ABSTRACT.....	ii
DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
SUPPLEMENTARY INFORMATION	vi
1. Introduction	1
1.1 Problem Statement.....	2
1.2 Objective	3
1.3 Context	3
2. Literature Review	5
2.1 Legislative Framework	5
2.2 KING IV Principles.....	6
2.3 Mining Charter.....	7
2.4 Leadership and Management Theories	11
2.5 South African Chamber of Mines	13
2.6 Mining in South Africa and Madibeng.....	14
2.7 Social Labour Plan (SLP)	15
2.8 Summary of Proposition	18
3. Research Methodology	19
3.1 Introduction	19
3.2 Research Design	20
3.3 Data Analysis	23
3.4 Limitations.....	23
3.6 Validity	25
4. Results and Analysis	26
Population of Madibeng Municipality.....	26
Crime.....	32
The impact of mines on local communities	37
Bushveld Vametco	37
Hernic Ferrochrome	41
Lonmin	44
Samancor Chrome	47

The social and economic impact of mining in the Brits area of Madibeng Municipality

5. Discussion and Recommendations	50
Mining License Application	54
Royalties	55
The Role of Local Municipality	55
Further Research	57
6. Conclusion	58
References	62

Table of Figures

Figure 1: Action Centred Leadership Model	11
Figure 2: 7 Steps of the SEAT process	22
Figure 3: Population of Madibeng municipality (Source StatsSA)	27
Figure 4: Community survey 2016: Population by age	28
Figure 5: Emigrants by Province in CS 2016 (Source: StatsSA)	29
Figure 6: Income distribution from mining activities by province (Source: StatsSA)	30
Figure 7: Employment Distribution by Province (Source: StatsSA)	31
Figure 8: Number of assaults with intent to inflict grievous bodily harm	32
Figure 9: Murder cases in the selected Madibeng area	33
Figure 10: Common Robbery	34
Figure 11: Robbery with aggravating circumstances	35
Figure 12: Burglary at residential premises	36
Figure 13: Vametco processing plant (Source: Bushveld website)	38
Figure 14: Community notice to handover memo of demands (community flyer)	39
Figure 15: Historical prices of Ferro Chrome since 2005	42
Figure 16: The village next to Hernic Ferrochrome (De-Kroon)	42
Figure 17: Tshaba Dimaketse (Bokfontein)	43
Figure 18: Bokfontein Community Hall	44
Figure 19: Bapo ba Mogale Tribal authority area	45

1. Introduction

The mining industry contributes to the economy of the region and the country in general. South Africa has a wealth of mineral resources and most of these minerals are exported and some processed for different industry applications. SA has abundant of platinum group mineral with 80% of reserves in the world supply in South Africa. The mining sector is a source of foreign earnings and the mining companies make profits from these minerals exports. The South African government draws revenue from corporate taxes and export duties. (Hamann, 2004). The mines pay mining royalty to SA government at a rate of 0.5% up to 5% for refined minerals and 0.5% up to 7% for unrefined minerals. (SARS, 2012).

South Africa levies export tax on unpolished diamonds with the objective of attempting to develop local skills and promote the domestic industry. SA is considering introducing a similar tax on iron ore and steel. Other mineral resources do not have export taxation. Other countries with similar export profile to SA like Indonesia, Ethiopia, Malaysia and Egypt derive some of their income from export tax. (Sandrey, 2014). Export tax is seen as barriers to free trade.

Mining in South Africa is regulated by relevant legislation governed by the Department of Mineral Resources (DMR) and the Department of Environmental Affairs (DEA). Most of the mining activities take place in the tribal land of rural areas of South Africa, where there is a high percentage of unskilled labour. The tribal land belongs to the community and it is controlled and administered by the local tribal leader (chief) through tribal authority. The mining companies pay royalties to the local communities affected by the mining operations.

Mining is a strategic sector that can grow the economy of Madibeng much faster than all other sectors such as agriculture, manufacturing and tourism. It employs more local people. (*Quarterly labour force survey*, 2017). About three minerals found in Madibeng are some of the well-sought in the world and their applications in the industry are essential. (Jane Korinek, 2016). Due to the influx of migrant workers in the mining area, there are societal impacts and interactions that emanates from the mine workers and the community. One of the major objectives of executives in any mining company is to make maximum sustainable profit for the shareholders. The corporate governance prescribes that mining companies are corporate citizens as per King IV report principles. Mining companies are obligated to make economic and developmental impact in a community they operate in. The mining charter also supports the advancement of the social and economic welfare of mining

The social and economic impact of mining in the Brits area of Madibeng Municipality

communities. Madibeng is mostly a rural area with villages which has chiefs in charge. The communities see chiefs as the highest authority.

1.1 Problem Statement

The discovery of mineral deposit and pronouncement of intention to mine in the area develops a sense of pride and great anticipation for any community. This brings prospect of employment, economic activity, infrastructure development which will lead to community upliftment through Social Labour Plan (SLP) (Mcilhagga, 2018). The Bushveld region which includes parts of Northwest and Limpopo provinces has abundance of minerals including platinum and chrome. SA legislation (Minerals and Petroleum Resources Development Act (MRPDA) and Mining Charter) has been reforming overtime and it requires the mining companies to contribute and beneficiate the mining local areas and communities where they are operating. The mining charter seeks to promote employment and advance the social and economic welfare of mining communities. (Mining Charter).

This research will assess social and economic impact of existing mining activities in the Brits area under Madibeng Local Municipality (MLM) by visiting the affected areas, extracting relevant data from reputable sources like the Statistics SA and other sources. The population growth will be analysed, employment figures, crime in the area and general service delivery by stakeholders in charge. Most parts of the area are rural thus under-developed and lack most basic services. The communities continue to be impoverished and mining companies making profits from minerals in their region.

Rehabilitation and development of the area that is mined has become mandatory by legislation. The need to employ more skilled personnel will attract migrant workers. Most of mining areas are not developed and require some villagers to relocate and make way for mining activities. Mining can have both negative and positive economic, social and environmental consequences in the region. Unemployment is high among communities and influx of migrant workers. Lack of skilled labourers among the locals will also be highlighted. There has been unrest by the mining communities that has led to production to be stopped. What has fuelled these demonstrations?

1.2 Objective

The objective of this research is to evaluate the contribution of mining companies to the community be it financial or developmental and the impact on society and economy. The impact on society may either be positive or negative. The findings of this research will be shared with authorities including municipal and mining companies' execs to grind a way forward in collaborating in different community-based projects to uplift the quality of life of the community and their welfare. It is essential that the relationship between mining companies and local communities is enhanced in order to realise a sustainable economy. The role of the Department of Minerals Resources will also be investigated. They are the custodian of the mining industry and regulators by enforcing the relevant legislation.

This research will also help the community and mining companies to evaluate themselves where they've come short on developmental issues.

1.3 Context

Multinational companies have for many years been mining and making profit from mining activities, in the Brits area (Madibeng Municipality). As corporate citizens, these companies need to contribute to the societal development and upliftment. The companies' board of directors are obliged by the good corporate governance principles to contribute to sustainable development of society and the operations of mining should not destroy the environment but restore it to a better and sustainable one. Compliance to corporate governance principles will ensure that the mining company's social licence to operate is retained.

The mining company must stimulate the economic activity in the region and attract more investment. The mining company has an obligation as a corporate citizen to help with the development of the local community. The relationship between the mining companies and local community needs to be enhanced through effective communication and engagements that can lead to a thriving community. One way in which mining companies can effectively administer citizenship rights to the communities is by maintaining infrastructure and not leaving it to municipal authority to service. It is crucial that the collaboration between municipality and mines be enhanced for the benefit of the society.

The social and economic impact of mining in the Brits area of Madibeng Municipality

Mining operations are often done in environments where government institutions are absent, weak or lacking in capacity, so there are often gaps of service delivery and development. The social and environmental footprints of mining operations have negative effects on local communities. The expectation of employment is high from the mining operations and development financed by the mines. So the benefits of the wealth created by mining operations must be shared with the local community. (Wall & Pelon, 2011). The affected communities still live in informal housing in some of these mining areas. There are migrant workers who are not employed but still live with the locals with a hope of landing employment at this mines. When these people have no income they will take part in other activities to create income and survive. The locals are also demanding basic services from the mines.

2. Literature Review

Mining contributes to economies of many countries. In South Africa it's no exception, with abundance of minerals for domestic and international markets. Gold, coal, copper, platinum, chrome and many other precious metals are mined in SA, most of which are exported. Most mining ventures in SA are done by multinational companies. South Africa is a democratic country with a strong legislation for all sectors. Where it is found not to be adequate, the parliament continues to amend the laws for the betterment and welfare of the citizens. The mining charter is one such piece of legislation. Mining has significantly contributed to the economy of the country for many years. Any legislation is only good if it is applied and most importantly monitored by the authorities for proper application and intended effects.

Madibeng Local Municipality (MLM) is a category B in the Northwest Province within the Bojanala Platinum District. It has a diversified economy but mining is the predominant economic activity.

2.1 Legislative Framework

There are several different stakeholders in any mining venture, investors, local community, government and local municipality. Every stakeholder has an important role to play and needs to be engaged before decisions are taken. Each is represented by chosen or appointed leaders. This research focuses mostly on the interaction of local community and mining companies as stakeholders and the role by authorities. There are several permits and authorisations that need to be obtained from government departments before any operations can begin. The amended Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA), which came into effect on 01 May 2004 and gives mineral ownership rights to the state with royalties paid to the state. Previously the rights were held by the community and payable to them under the common law rights to minerals before the introduction of MPRDA in 2004. (P. Badenhorst & Olivier, 2012). (Cawood, 2004).

Section 104(1) of the legislation on mineral prospecting distinguishes between preferential rights to prospect or mine for the community and the prospecting rights. Prospecting rights can be granted to any applicant if he satisfies the BBBEE requirements as stipulated in the MPRDA but the preferential rights to prospect or mine may be granted to the community by the relevant minister if the community can prove among others that the right shall be used to

The social and economic impact of mining in the Brits area of Madibeng Municipality

contribute towards the development and the social upliftment of the community concerned. The envisaged benefits for the community in question that will accrue from the prospecting rights or mining projects need to be quantified.

It is clear from the differences in applications that the applicant for prospecting rights has no obligation to contribute to the development and upliftment of the community in which they are prospecting but to provide among others the environmental management plan and compliance with the Mine Health and Safety Act 29 of 1996. (P. J. Badenhorst & Olivier, 2011). This raises a question of whether the legislation absolves the mining companies from contributing to the development of the society and local community. The Mine Health and Safety Act was established for purposes of safeguarding the health and safety of mine employees and communities affected by mining operations.

2.2 KING IV Principles

There is a constant pressure on companies to comply with good corporate governance principles. King IV report was compiled and released in November 2016 and became effective in April 2017. It must be mentioned that King IV is not law but a set of codes. Good corporate governance ensures adherence to policies and rules and holds boards of directors and executive management of companies accountable for their actions and operations. Companies are accountable to their shareholders, local community, other stakeholders and employees. The companies are urged to be corporate citizens by providing leadership characterised by integrity and responsibility. King IV principles are applicable and mandatory to JSE listed companies but implementation remains voluntary for all other companies on “apply and explain” basis.

King IV is formulated on concepts of ethical leadership, organisation in society, corporate citizenship, sustainable development, stakeholder inclusivity, integrated thinking and integrated reporting among others. Organisations operate in society which is affected and impacted by their operations, thus organisations are seen to be part of that society. As part of society, the organisation has a status of a corporate citizen. There is an interdependent relationship between stakeholders and organisation. They create value for itself, Investors and other stakeholders. (IoDSA, 2016).

The principle 3 of the King IV report calls for the board of directors to ensure that the company acts and is seen to be a responsible corporate citizen. This requires the board to

The social and economic impact of mining in the Brits area of Madibeng Municipality

report to its shareholders and stakeholders on the company's triple bottom line which is economic, social and environmental performance. In comparison to the MPRDA as explained above on the applicant for prospecting minerals, King IV states it is unethical for companies to expect society and future generations to carry burden of economic, social and environmental responsibility. The Board must ensure compliance with applicable laws, codes and standards. They will approve policies that articulate and gives direction on compliance. (IoDSA, 2016).

This report will answer some more questions. Does the King report principles absolve the company for being a corporate citizen when the company has made a financial loss in a financial year? Do the mining companies have personnel who are in charge of CSR projects with the mining community? What is the consequence to mining companies for neglecting their social responsibilities? Are there any existing collaborations between the local municipality and the mining companies?

2.3 Mining Charter

The Mining Charter was developed as a result of MPRDA to effect transformation of the mining sector with specific targets. The mining charter is consistent with Broad-Based Black Economic Empowerment Act 2003. Some of the weaknesses identified when the assessment on the Mining Charter was implemented in the mining sector are human resource development, mining community development, housing and living conditions and ownership. The charter states that there must be consultation and coordination between mining companies, communities and local municipalities to ensure mining communities development.

Mining companies must improve the living conditions of mine workers with decent housing. They must subsidise workers to buy or build houses. Their employees must be integrated within the community in line with sustainable integrated Human Settlement. The mines must contribute to human resource development as part of social transformation at workplace and sustainable growth. (Mining Charter, Department of Mineral Resources, 2016)

Brits is a small traditionally farming and recently mining town in the Northwest province under the jurisdiction of Madibeng local municipality in the Bojanala Platinum District Municipality. There are a number of mines in the area. The municipality lists about 10 operating mines under their jurisdiction. Madibeng has diverse economic sectors,

The social and economic impact of mining in the Brits area of Madibeng Municipality

agriculture, mining, manufacturing and tourism. Mining is predominant in Madibeng. It is the world's third largest chrome producer and the richest Platinum Group Metals Reserves (situated on the Merensky Reef). Granite is another mining component mined in the area.

Once there is a discovery of minerals in an area and there is intent to start mining activities, there will generally be an influx of migrant workers into the area. Targeted areas usually lack infrastructure and basic services. High levels of unemployment are a challenge throughout the country and in the neighbouring countries like Zimbabwe, Mozambique and Lesotho. The influx of migrant workers brings with them high crime rate, infectious diseases and lack of basic services. (Hamann, 2004).

Mining authorities engage with community in communal land wherein most cases there are chiefs in charge. South African constitution recognises traditional leaders through an act of government known as Traditional Leadership and Governance Framework Act 41 of 2003, which gives them recognition and authority over the particular community according to customary law. The traditional leader together with the community owns the land that they have traditionally occupied for a number of years. There is a different view in that the traditional leader can get into agreement with the mining houses without consulting the entire community and only informs them of the final decision to mine in the area. This is one of the reasons that lead to conflicts between communities and mining companies. The informal settlements increase when the area becomes over populated. (Mnwana, 2014)

Mining is an activity competing for land, labour and capital with all other forms of economic activity. The rural land is mostly used for agricultural purposes and farming. Mining will always be given preference over any other activity due to inflows of capital from global investors and prospects of higher revenue from operations. (Richards, 2009). The revenue acquired from mining activities is seen to be more. As a labour intensive exercise, there is potential and prospects of employing many people than other sectors. For the local community, they can also draw revenue in the form of mining royalties.

Paying of mining royalties to the authorities should not be seen as an easy way-out from corporate social responsibility by mining companies. Most multinational companies are listed on the stock exchange of different countries. The listed companies are compelled to provide CSR from their operations. Even though the company may not be listed in the local Johannesburg Stock Exchange, it doesn't absolve them from contributing to CSR. Most

The social and economic impact of mining in the Brits area of Madibeng Municipality

mining companies are listed on the stock exchanges of their respective countries which imply they have to abide by the KING III principles.

The non-governmental organisation (NGO), Bench Marks Foundations (BMF) works with mining communities to hold the mining companies accountable on SLP promises made when they were granted licences to expropriate in a particular area. BMF engages corporations on corporate social responsibility and raise public awareness on the matter. They hold public engagements with corporations in attendance. This becomes the opportunity for the corporations to forge a sustainable relationship with the community. A report was drafted along the platinum belt community in the Bojanala region. The report largely paints a bleak picture of the relationship between mining community and the mining companies, unethical relationship of responsibility. The report exposes the socio-economic impact in the platinum belt area. (Rustenburg Community Report, 2011).

BMF identified the following as common issues in the Rustenburg area;

- Forced relocations – people are forced to relocate and make way for mining activities.
- Unemployment – migrant workers move to places next to mining operations. Their status remains unemployed until the mining companies hire them.
- Increase in diseases in mining community – the mining operations affects the environment. There maybe contamination of water or basic services used for consumption.
- destruction of economic activity (farming) with no viable alternative;
- uneven distribution of wealth, water – those employed in the mines have income.
- noise & air pollution – mining require big machinery for drilling and extracting minerals underground.
- high rate of social problems (drug use, alcohol abuse, prostitution, Xenophobic attacks, crime).

Next we look at the global practice on how corporates contribute to their immediate local community. Wall and Pelon (2011) say for the mining companies to retain their social licence to operate, they use foundations, trusts and funds (FTF's) as vehicles for sharing benefits of mining operations with local community. FTF's can be used to deliver community investments programs for companies, facilitate the use of government payments derived from mining for development. Mining companies contribute a minimum of 1% of their annual

The social and economic impact of mining in the Brits area of Madibeng Municipality

turnover towards local community development and labour sending areas, which is consistent with international best practices.

In Nigeria, the oil companies have experienced unrest and criticism from local communities within oil producing areas. Oil is a well sought after resource world-wide. There was condemnation from international organisations like Greenpeace, charging the multinational companies with unethical behaviour of neglecting the Niger Delta and not providing infrastructure development for educational purposes. The poorest regions of Nigeria (Niger Delta) are where the oil companies are operating and it has intensified conflict. In addition, the community have to endure polluted environment. (Eweje, 2006)

Locally in the Rustenburg area, which is also along the platinum belt, there is Royal Bafokeng (RB) nation who are dubbed the richest tribe in Africa. RB together with the Bakgatla Ba Kgafela have created wealth through platinum mining by direct royalties and shareholding partnerships with multinational mining companies that operate in their communal land. (Mnwana, 2014). How can all other mining communities benefit from the revenue created from the mineral wealth that is mined in their area? Can the business model of the Royal Bafokeng and Bakgatla Ba Kgafela be copied to benefit the mining community in the greater Madibeng area? Who can drive this plan?

Conflicts between mining companies and local community are common. National governments, policy makers, mining companies in consultation with local community need to have a continuous dialogue on having interventions that will avoid tensions. The Brits area is still under-developed even though there are multinational companies operating in the region. Communities expect service from the mines even though the municipality could be responsible but their close proximity to the mine makes them to demand services and employment at the mine. (Crowley, 2017).

The price of commodities is affected by such unrest as the mines are forced to stop or suspend production to address the community demands. The buyers of minerals tend to look somewhere else to buy the affected commodity and thus plunging the price in the affected countries. It has a knock on effect.

2.4 Leadership and Management Theories

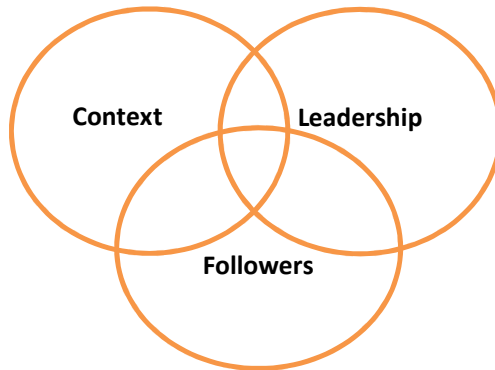


Figure 1: Action Centred Leadership Model¹

This model which is similar to John Adair's Action-Centred Leadership Model but adapted to leadership in the context of mining community. The context in the model is the mining company extracting mineral resources from the communal land. The resources are not renewable thus the continuous mining will deplete them. The mining companies create revenue from mining and take the profit. The wealth created from the mining operations must be shared with the local community. (Bolden, Gosling, Marturano, & Dennison, 2003)

The leadership in the community and mining companies focuses on different aspects. The community leaders represent the community on their demands by all cost and similarly the mining management needs to create value for their employers and thus concentrate on making profit and creating value for their investors. This practice needs to shift towards joint leadership or collaborative relations that work towards common goals. The local community needs to form development committees that will mobilise the community to be actively involved in issues of development. The companies' needs to identify community based projects that they can support with financial resources and generate revenue that can sustain the community. One of the roles of this combined leadership in mining companies and community is to continuously forge collaborations. The leadership will need to form sustainable strategies to entice the community to be involved in societal initiatives. Failure to do so, would lead to society rebel against mining operations in their communal land.

Followers in the model are the local community and employees. They are the subject of societal leadership and management in the companies. The strategy will lead to

¹ A review of leadership theory and competency

The social and economic impact of mining in the Brits area of Madibeng Municipality

organisational structuring to produce value. In this context, leadership is both from the mining company and community. The value produced is seen from perspective of the mining company as offering employment to community members and from perspective of society is seen by social upliftment and financial value. Value will be created when both players (leadership from mine and community) work towards a common goal. Value will be when the community benefits from mining investment (skills development and services) and offering employment to locals and mine will benefit when community does not stop production by unrests.

South Africa uses mixed legal system of Roman-Dutch law, English common law and customary law. Traditional leaders are recognised as a legal entity under the customary law. These traditional leaders are common in rural areas. The traditional leaders see themselves as decision makers and their endorsement is sought in any community related developments. This can be detrimental to the society as traditional leaders may stop developments in the communal land. The nature of traditional leadership is that their word is final and cannot be questioned though constitutional democracy encourages questioning attitude and review of irrational decision making.

The Traditional Leadership and Governance Framework Act of 2003 emphasises the role of traditional leaders in a community and provides for the establishment of traditional council. The Traditional council should have partnerships with municipalities. Legislation gave more powers to traditional leadership by proclamations that they may become Land Administrative Committees (LAC). (Sithole & Mbele, 2008).

Mining management is compelled by legislation to take care of other societal challenges emanating from mining operations (Environmental laws). This requires the mining management to periodically interact and engage with mining community. The most convenient way is for the community to form development committees that will communicate and oversee developments in the area, be it environmental or social. All these developments need the chief's approval and endorsement. The Communal Land Rights act states that the communally held land is to be transferred into the name of the community occupying it. The Bafokeng Nation under the leadership of Kgosi Leruo established Royal Bafokeng Resources in 2002 to manage the community's mining adventures and later in 2004 established Royal Bafokeng Finance to develop non-mining portfolio. The two companies were combined later to form Royal Bafokeng Holdings which manages the community's

The social and economic impact of mining in the Brits area of Madibeng Municipality

investment strategy and portfolio. (Cook, Bohlin, & Gips, 2011). This is a sustainable strategy for the community with good returns.

This research will scrutinise the living condition of mining communities and the effect of mines in their traditional land by visiting and observing affected places and conduct interviews where possible. The mines that operate in Madibeng are Lonmin, Samancor, International Ferrometal, Heric, Bushveld Vametco, Skychrome, Rhovan, and Tharisa. Most of the mines mentioned above have paid mining royalties to the host mining communities and those royalties were paid into an account known as D-Account established during the homeland rule of Bophuthatswana. These mines operate in the following places: Bapong, Majakaneng, Segwaelane, Sonop, Modderspruit, Vaalboschloot, Mmakau, Rankotea, Uitvalgrond and Bethanie.

The Bapo ba Mogale traditional kingdom comprises of Buffelsfontein, Modderspruit, Boschfontein, Wolhuterskop, Kafferskraal, Wonderkop, Marikana and Uitvalgrond. Lonmin, Samancor and Skychrome are operating in Bapo ba Mogale land since 1969.(Madonsela, 2017). International Ferrochrome has been bought by Samancor.

The mines need to embark on sustainable strategies in that mining will reach its economic life-end. Communities must know that mining will not continue to eternity. If they need to benefit from the mining activities, the time is now. The development that the mines embark in must help lift the standard of life in the mining communities.

2.5 South African Chamber of Mines

The SA Chamber of Mines is the association of mining industry employers in South Africa that promotes and supports SA mining companies and negotiates with government with regards to policy on behalf of its members and provides strategic support and advisory input. The Chamber of mines also negotiates on behalf of their members (mines) with affected Unions in the mining sector for salaries and other benefits. SA Chamber of Mines has currently 71 member companies. The chamber sees the policy uncertainty as a challenge in the mining industry. The mining charter is being revised by the DMR for implementation later. The chamber which seeks to promote investment in the sector, wants to challenge other aspects on the newly revised mining charter.

The chamber has a membership compact which is a mandatory code of ethics for business conduct. The compact values have five attributes: Responsible citizenship, Respect, Trust

The social and economic impact of mining in the Brits area of Madibeng Municipality

Honesty and Accountability. The chamber members commit to compliance with all relevant legislation, and make every effort to reach the mining charter targets. The objective of the compact is to build trust with stakeholders, transform the mining sector and partnering with local communities at existing and future mining operations and labour sending areas. (SACOM, 2017)

There are 10 further guiding principles. Those that are of interest to this research are:

- Implement and maintain ethical business practices and sound systems of corporate governance.
- Integrate sustainable development considerations within the corporate decision-making process
- Respect fundamental human rights and respect cultures, customs and values in dealing with employees and others who are affected by their activities
- Seek continual improvement of their environmental performance
- Contribute to the social, economic, and institutional development of the communities in which they operate, and in the labour sending areas
- Implement effective and transparent engagement, communication and independently verified reporting arrangements with their stakeholders. ("South African Chamber of Mines," 2017).

The mining industry acknowledges the need to address the living conditions of mine-workers. The Mining Charter requires that mining companies establish measures to address housing plans for employees. All the mining companies or subsidiaries in Madibeng are the members of Chamber of Mines. They have to comply to the chamber's guiding principles. The chamber supports the National Development Plan (NDP) objectives and thus all mining companies support it.

2.6 Mining in South Africa and Madibeng

The mining industry has driven the South African economy for the last 150 years. This has made SA the leading economy in Africa. The Organisation for Economic Co-operation and Development (OECD) lists SA as the world's largest producer of platinum group metals, vanadium, manganese, vermiculite and chrome and second largest producer of palladium, zirconium and rutile. (Korinek & Ramdoo, 2017). Three of the minerals sought in the world are found in the Madibeng area. The predominant mining activities in the Madibeng area

The social and economic impact of mining in the Brits area of Madibeng Municipality

include the production of the following: Ferrochrome, Vanadium, Chromium, Silica Sand (used in the manufacturing of glass), Stone quarries, Granite quarries and Platinum.

In 2013 the mining sector contributed 9% of GDP, 12% of total investment, 30% of merchandise exports and 8% of total no-agricultural employment. ("South African Chamber of Mines," 2017). The share of the mining sector has declined in recent years due to number reasons. The commodity prices have generally declined, regulatory uncertainty, infrastructure constrains and general investment issues by mining companies.

Minerals	Share of Global Production (%)	Share of Global Exports (%)	Export Value (Million US Dollars)
Chromium	47.4	41.7	1 371
Ferro-Chromium	33.6	42.6	2 784
Platinum	71.3	34.5	6 362
Vanadium	26.9	28.4	72

Table 1: Minerals export in South Africa ²

The minerals mentioned in table 1 above are the main minerals extracted in the Madibeng area. Chromium which is mined at Tharisa mine, is used in stainless steel for vehicle, aerospace, high speed tool components, cookware & cutlery and leather tanning. Ferro-chrome is mined at Samancor and Hernic Ferrochrome and is used in production of steel. PGM is mined mainly in Lonmin and Tharisa mines and is used in catalytic converters in vehicles, jewellery, dentistry, electronics including computers, mobilephones, fuel cells, optical fibre and LCD's. Vanadium is mined at Bushveld Vametco and Rhovan mines and is used in steel for armour plates, axles, tools, piston rods and crankshafts and also in nuclear reactors. (Jane Korinek, 2016).

2.7 Social Labour Plan (SLP)

One of the requirements for mining licence to be issued is a Social Labour Plan (SLP) document. This document to be drafted requires a compulsory community engagement between the mining company executives and affected community. This requirement is legislated in the MPRDA of 2002. The objective of the SLP:

² OECD 2014. <http://www.compareyourcountry.org/trade-in-raw-materials?cr=oecd&lg=en&page=0&visited=1>

The social and economic impact of mining in the Brits area of Madibeng Municipality

- Develop and Implement Mine Community Development Plan,
- Housing and Living Conditions Plan and
- Employment Equity Plan.

The SLP promotes economic growth, employment and advance social and economic welfare. It is envisaged to expand on the skills base and ensure mining companies contribute towards socio-economic development of areas where they are operating and areas where from which majority of workforce is found. MPRDA (2002).

The objective of this consultation is for the mining company executives to identify the needs of the community and make funding available for those identified needs. The development plan must be achieved within a reasonable time. The mining licence is valid for 5 years so is the SLP and the plan must be assessed every year. The SLP include the budget for the projects identified. It is not dependent on whether the mining companies are making profits or not but on a projection of future profits. The plan must incorporate and counter the negative impact of mining operations which includes relocation of people, exhumation of graves and influx of migrant workers (informal settlements).

SLP is also drafted in line with the Integrated Development Plan (IDP) of the host local municipality. The IDP is drafted in line with the National Development Plan (NDP). IDP is an inclusive and strategic plan for development in the municipality. There are more government departments that can make an input in this community development plan, including the Department of Housing, locally based Department of Labour, and Department of Rural Development. SLP is not only submitted for the sake of acquiring a mining license but a well-researched and broader consultative document.

In some instances, SLP is approved and the mine operates normally. However due to economic circumstances the mining company may experience operational challenges and consequently a decision to sell the mine to another company is made. When that happens, the original approved SLP is still valid and the new owners are obliged to carry out the plan as agreed. SLP is separate from the royalties that the mines pay to government or traditional establishments in the villages. The mine can extend the Local Economic Development (LED) to be done to an area which is regarded as a high labour sending region of their staff complement irrespective of the area being in a different province or municipality.

The Department of Mineral Resources is the custodian of the SLP. They are required to send inspectors annually to monitor the implementation of the SLP. The final SLP document

The social and economic impact of mining in the Brits area of Madibeng Municipality

is assessed and approved by the DMR (regional manager) and the communities may not have the final copy unless they ask the DMR to provide them with it or the mining company. The mining company must submit annual SLP Implementation Plan and DMR assess this reports on their compliance on SLP. DMR can use their enforcement powers to align the mining company with the SLP by issuing compliance directive else the companies face suspension or cancelling of their mining rights.

2.8 Summary of Proposition

The SA government has made regulations which are also engraved in the constitution of the republic to control the mining of minerals in the country. The regulations are detailed with set objectives that include benefitting the locals and contributing to economic growth. The extracts from the Mining Charter will be analysed to evaluate if the affected mines are compliant. The Chamber of Mines equally looks at the interest of the mining companies but encourages corporate social investment in its entirety. The gap between the poor and rich is widening in South Africa. Mining communities embark on protest against mines. This research will establish and evaluate the facts on lack of investment in the community by the mining companies by establishing that:

- The economic benefits of mining are not proportionally shared with communities, with the mining company taking profits and not investing in the local community.
- The negative impact of mining on the entire community including employees and general community.
- The economic benefits for society and employees.
- Value sharing proposition.

A mining company contributes in the following ways to retain their licenses:

- Taxes to national governments;
- Royalty payments to local community and government
- Employment (salary);
- Local procurement (the purchase of goods and services as inputs for the mine);
- Investment in services and infrastructure which may have spin-off benefits to the wider community and to unrelated businesses.
- Investment in community programs to achieve outcomes in areas such as infrastructure development, capacity-building, environmental rehabilitation, arts and recreation facilities, health and wellbeing centres. (Esteves & Vanclay, 2009).

3. Research Methodology

3.1 Introduction

This chapter will look at the methodology that will be embarked on to collect data from different reputable sources. The research will be conducted by acquiring secondary data from sources including municipal information, DMR and Statistics SA data. It will be analysed both qualitatively and quantitatively (mixed). The data needed will be for a wide area and thus reasonable assumptions will be made and declared where necessary. Some data maybe regarded as personal, confidential and sensitive to publish by the authorities and thus difficult to obtain. Extra care will be taken not to publish personal data in line with Protection of Personal Information act (POPI), which seeks to regulate processing of personal information.

Statistics SA collects and analyses population stats periodically. Previous similar work was done in the community of Bojanala District by Bench Mark Foundation. Most of data to be analysed will be secondary data which will extracted and collected from different sources. However, in case of any gaps, relevant people might be interviewed to ascertain and complete the research authentically.

Stats SA has census data complemented by periodic community surveys which will be used in this research. Further to that the municipal data will be requested to complement the data. The financial annual reports will be requested from mining companies if they are not readily available on their website. Info contained on the reports will include profits from operations and social contributions.

The census data captured for the last census 2011 is still valid and not outdated which was the last census conducted. The data was collected by Statistics SA surveyors who visited each household with a set of questions. For quality control and data validity, South African Statistical Quality Framework SASQAF was used as an enabler for self-assessment by data producers; review performed by a Data Quality Assessment Team (DQAT) in context of the National Statistics System (NSS) for certifying statistics as official as stipulated in the Statistics Act (Act No.6 of 1999). The Statistics Act mandates the Statistician-General to convey quality criteria and establish standards, classifications and procedures for statistics produced state departments and other agencies that produce statistics and to designate as official, statistics produced by any organ of state. (Lehohla, 2008)

The social and economic impact of mining in the Brits area of Madibeng Municipality

SASQAF provides clear criteria and transparent procedures for evaluation of official statistics and other data, but can be also used by data producers for self-assessment of their own products. SASQAF operational standards and guideline document was developed. The document serves as a guide for data producers and assessors in determining the quality of statistics through SASQAF. It provides guidelines on how to achieve best quality products. It aligns each quality indicator within the dimension with standards that need to be adhered to, followed by a set of guidelines that assist in managing the dimension.

The Community Survey 2016 (CS 2016) information will also be used as it is conducted between the censuses. CS 2016 is the second such survey. It is conducted electronically using Computer Assisted Personal Interviewing (CAPI) system. CS 2016 is the update of the Census 2011 data but concentrate on the most important aspects. (Lehohla, 2008)

Mining and municipality management could be interviewed to ascertain some vague figures collected. The local community will also be interviewed to establish the relationship between them and the mine management.

3.2 Research Design

Anglo-American introduced a tool to assess socio-economic impact of mining called Socio-Economic Assessment Toolbox (SEAT). This is a desktop-based exercise to profile socio-economic issues and impacts. SEAT is used for Anglo-American operations world-wide. It encourages mines to work with communities where they operate. It encourages sustainable development, accountability and collaborative work. (Toolbox, 2012).

Mr Jon Samuel, Head of Social Performance for Anglo-American mentions that most companies have approached them to use the toolbox. Since it is adaptable and relevant, they have since made it available to all corporations. ("Socio-Economic Assessment Toolbox, SEAT," 2012). The toolbox will be adapted to different relevant mining information in the region. SEAT is a comprehensive tool kit, but for the purposes of this research, some aspects of the toolbox will be omitted as it will make the scope of the research too large. The tool can be customised for the purpose of this research. The research will deal with aspects of economic and social impact of mining only.

Questionnaire will be formulated which will be sent to mine management. Some of the information required will be obtained from a dedicated office within the mine which deals only

The social and economic impact of mining in the Brits area of Madibeng Municipality

with stakeholder management and addresses all the stakeholder related matters. The info required will be for mine workers and community members.

This research will use SEAT model and adapt it to the affected mines and communities in the Madibeng area. The model will be used to:

- Identify key social and economic impacts and issues that need to be managed.
- Improve the understanding of the communities' interest and stakeholders.
- Assess existing community initiative.
- Assess the infrastructure developments in the affected communities
- Identify key performance indicators for tracking commitments for improving the management of operations socio-economic impacts.
- Resource for developing and updating engagements with community

The areas affected will be profiled with demographics characterised by age, education levels, employment figures and crime statistics.

The social and economic impact of mining in the Brits area of Madibeng Municipality

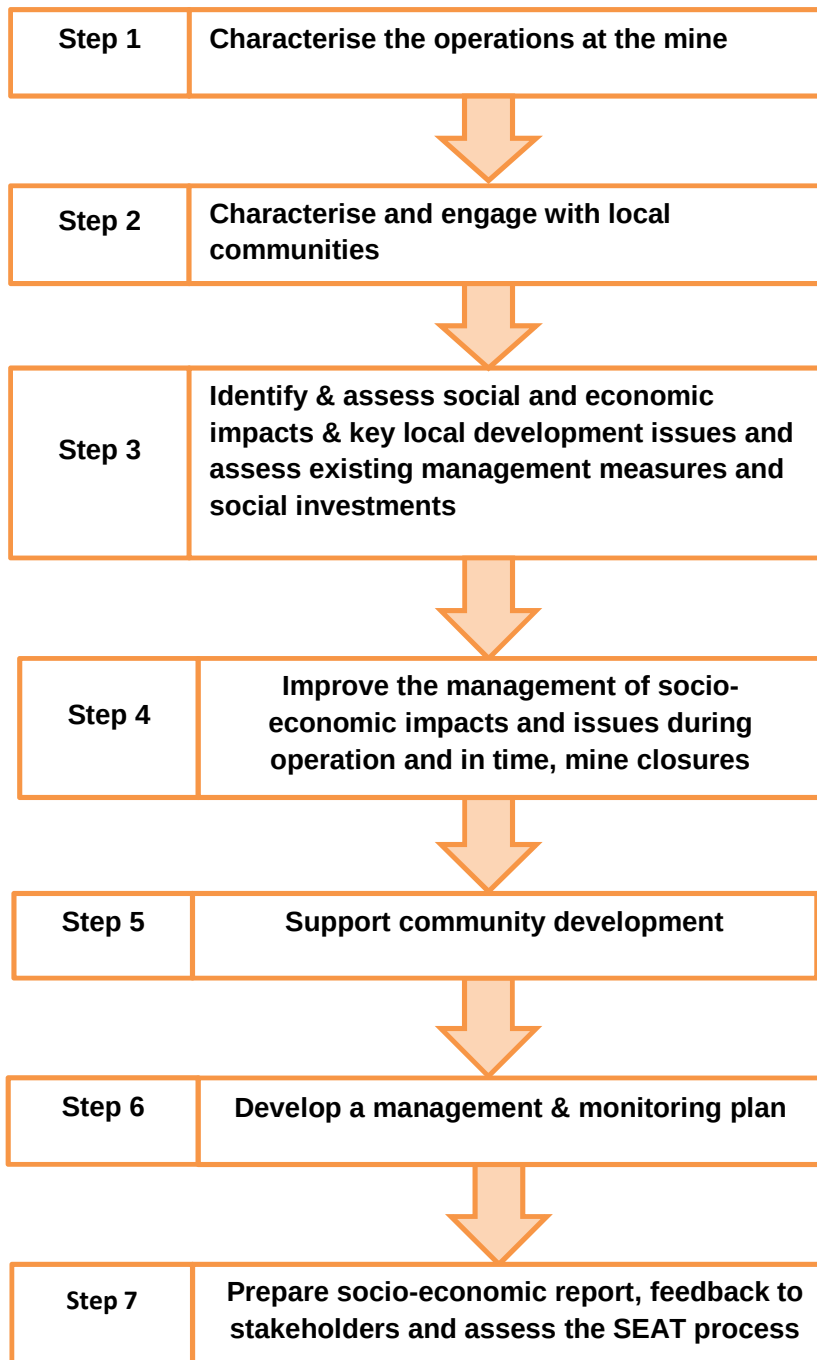


Figure 2: 7 Steps of the SEAT process

3.3 Data Analysis

This research will be conducted mostly as a desktop exercise. Relevant data will be collected from relevant reputable institutions such as the local municipal system and the Stats SA census information. The data will be analysed using both quantitative and qualitative methods because of the amount of data to be collected. The data will be numerical (statistical) and interview extracted questionnaire. Quantitative analysis focuses on causal relationships in terms of observation statements, verifications and predictions whilst qualitative research focuses on exploration of human behaviour and understanding through people's action. Quantitative research uses mathematical models and statistical tables and graphs and reports research findings as objective. Qualitative data is used to explain experience and improve understanding of complex situation. (Ryan-Nicholls & Will, 2009).

The information may therefore be both objective and subjective. Objective in this regard refers to tabulation of events in the organisation's environment. Subjective refers to tapping into perception of participants on their surroundings and environment. (Downey & Ireland, 1979). Some of the data to be analysed will be population in each dwelling, general unemployment rate, employment figures in the mining sector and other industries, infrastructure development, access to basic services and culture & heritage support.

The researcher will visit the affected areas to make observation on the developments. Pictures will be taken and presented as evidence of any developments.

3.4 Limitations

Data collected may have gaps due to latest information not being available. Statistics SA conducts census in intervals of about 10 years. The last census was done in 2011. Much would have been changed since then. The institution periodically conducts Community Surveys in between the census. The survey is also a desktop exercise using latest statistical methods. Ideally, some data can be collected by visiting households and conducting surveys. This method is time-consuming for this kind of research and could lead to exposing the researcher to unsafe conditions. Information may not be voluntarily given unless a reward is given to participants.

Some data required includes salary/income for mine workers which is regarded as confidential and may not be given for publication purposes. Toolbox is designed with full

The social and economic impact of mining in the Brits area of Madibeng Municipality

corporation and consent of the mine executives. It may be difficult to get permission and entry into the mine and the research maybe seen to start new conflicts between mine and community especially if the mine is seen not to do enough for the region. Some information can only be collected face to face interviews as the people in the rural areas are not familiar with other modes of communication (emails). The other challenge is that people do not want to be identified when interviewed especially in villages where chiefs are in charge.

Another aspect of this research was to get the health file of the community members. This is not allowed for ethical reasons as it may contain sensitive information for research publication.

3.6 Validity

The information collected from Statistics SA site is reliable and reputable. The info can be further validated by also verifying against the info from the municipality database for community or the local labour department. The crime statistics were obtained from the national police department. It's the information that has been presented to the portfolio committee on police in parliament. The information on SLP's is valid as copies of submitted and approved documents were obtained from the DMR.

Some information was obtained from other sources like newspaper articles which covered other aspects of social ills brought by mining in communities. I also visited some affected areas covered here and where possible had informal discussions with residents. These were face to face discussion where notes were written.

4. Results and Analysis

Data was collected from the different sources including the Statistics South Africa (StatsSA), Madibeng local municipality, local department of labour, mining companies' websites and other useful organisation like Bench Mark. A set of questions were also sent to Chamber of Mines however there was no response. Thus secondary data from the sources mentioned earlier was analysed to reach conclusion. As part of the research I visited and made observations in the areas affected by mining operations. Some locals were approached and questioned on their views on the role of mines in their community.

Population of Madibeng Municipality

There are different sets of data from StatsSA. That is the Census data of 2001 and 2011 and Community Survey of 2016. The population of Madibeng has increased over the period under review.

Age- Grouping	Males	Females
0-4	26733	26256
05-09	18618	18618
10-14	16708	15754
15-19	19095	18140
20-24	28643	23869
25-29	30552	23392
30-34	25301	18140
35-39	20050	16231
40-44	15754	12889
45-49	14321	14321
50-54	11935	10025
55-59	9548	8593
60-64	6206	6206
65-69	4296	4774
70-74	2864	3342
75-79	1432	2387
80-84	955	1432
85+	477	1432

Table 1: Census 2011 Data (Source: Statistics SA)

The social and economic impact of mining in the Brits area of Madibeng Municipality

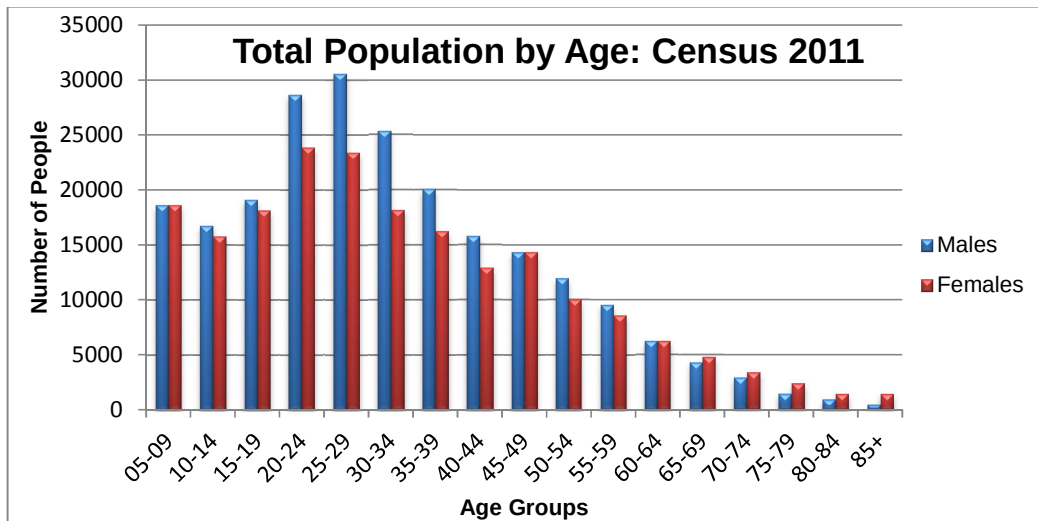


Figure 3: Population of Madibeng municipality (Source StatsSA)

Age-Grouping	Male	Female
00-04	30248	29399
05-09	26454	26710
10-14	22953	21867
15-19	21561	18959
20-24	26621	21570
25-29	29707	23665
30-34	24298	20089
35-39	23588	17756
40-44	19249	15050
45-49	16460	11770
50-54	14523	10618
55-59	12086	9110
60-64	8555	7950
65-69	5030	5460
70-74	3441	3987
75-79	1425	2181
80-84	592	1589
85+	482	1107

The social and economic impact of mining in the Brits area of Madibeng Municipality

Table 2: 5 year age groups by sex (community survey 2016)

Age	Male	Female	Total
0 – 14(Children)	79655	77976	157631
15 – 34 (Youth)	102187	84283	186470
35-64 (Adults)	85907	64304	150211
65+ (Elderly)	19525	22275	41800
	287274	248838	536112

Table 3: Broad age groups by sex (Community survey 2016, local municipality of Madibeng)

Table 3 shows the percentage of youth in CS 2016 to be 34.8% which is a decline from 39.2% as recorded in the Census 2011 data.

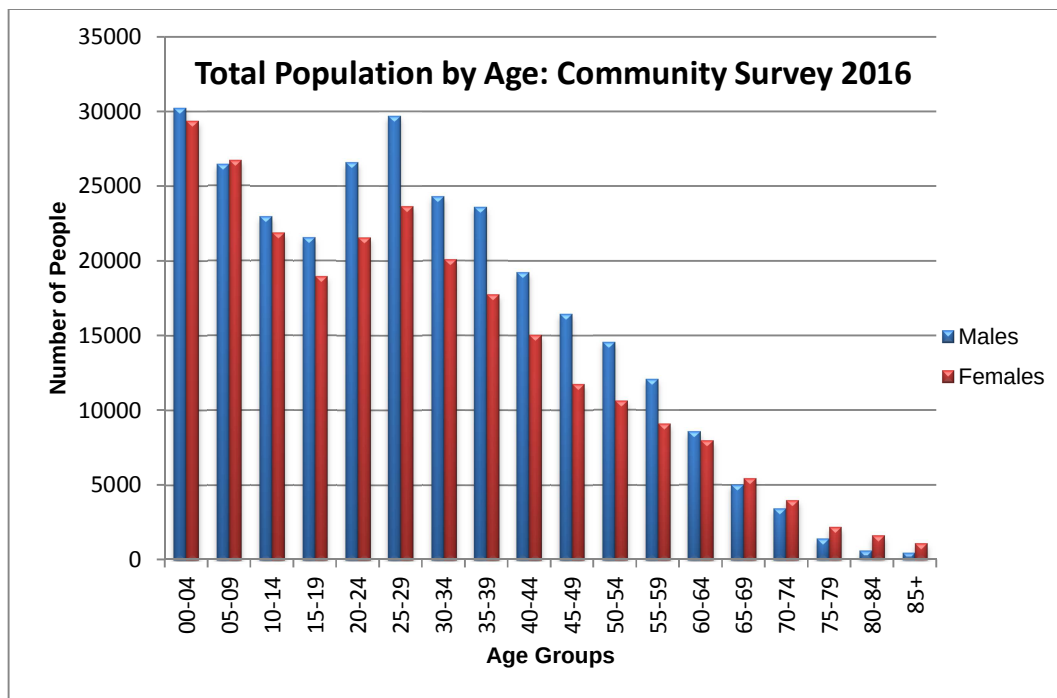


Figure 4: Community survey 2016: Population by age

The population of Madibeng has increased steadily from the period under review being from 2001 Census data, through 2011 Census and 2016 Community Survey data. The data show a population increase of 35.2% since 2001 Census. This is further illustrated by the increase in number of households in the area. The data shows an increasing number of youth populations ranging from age-groups 15 to 34 years. This is a critical age group of people who are supposed to be employed and economically active.

The social and economic impact of mining in the Brits area of Madibeng Municipality

People are forced to migrate to other provinces more specifically to urban areas for economic reasons. The increase in the economic age group and housing in this analysis is due to migrant workers who seek work in the mining sector of the region. Some move from the region in that age group to other places to further their studies or seek job opportunities. The CS 2016 reveals that more people from other regions moved to Gauteng province than any other province from other regions (as shown in figure 4.5 below). There have been a lot of informal settlements that were erected in the last few years around the mining companies. There is high unemployment rate of a group regarded as youth (15 to 34 years).

There are challenges as perceived by the households in the municipality. The following are regarded as main problems faced by residents:

1. Lack of safe and reliable water supply
2. Lack of employment opportunities
3. Cost of electricity
4. Inadequate housing
5. Violence and crime

Further analysis of the information at our disposal will show that Madibeng municipality is affected by all of these challenges and more.

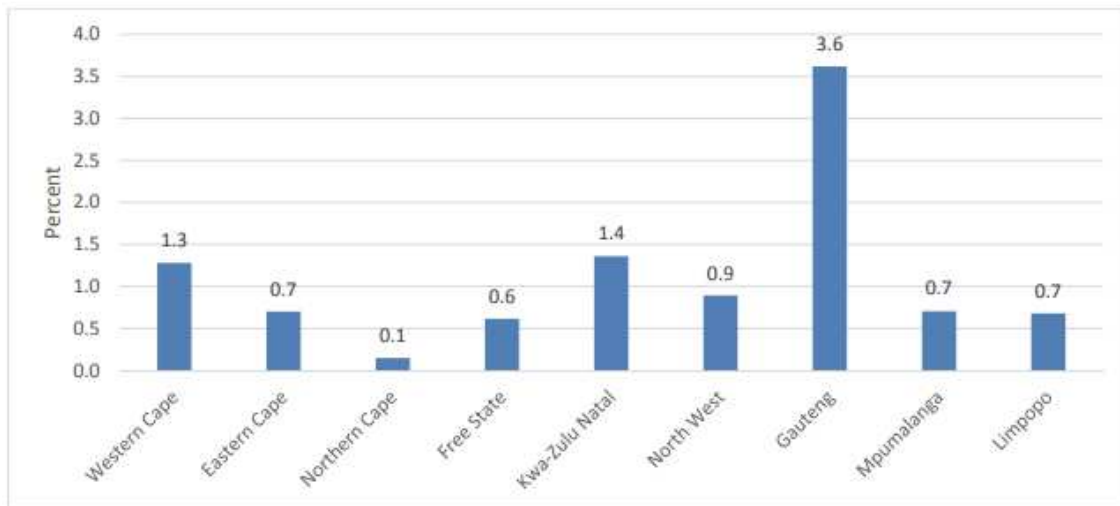


Figure 5: Emigrants by Province in CS 2016 (Source: StatsSA)

The national figures show the immigration by province in which Gauteng has the highest proportion at 36.2%. Of interest is that just over 9% of immigrants came from the North-West province, 4th highest on the list.

The social and economic impact of mining in the Brits area of Madibeng Municipality

The poverty headcount and hunger has increased from 8.2% to 8.8% in Bojanala district municipality from the period 2011 to 2016 (Appendix Table A2). The Bojanala district municipality includes the following local municipalities: Madibeng, Kgetleng rivier, Moses Kotane, Rustenburg and Moretele local municipalities. It is the only district municipality in the province with an increase in the poverty headcount and hunger during that period.

The 2011 overall unemployment rate in the Madibeng was 30.4%. The youth (15-34) unemployment rate was 38.2%.

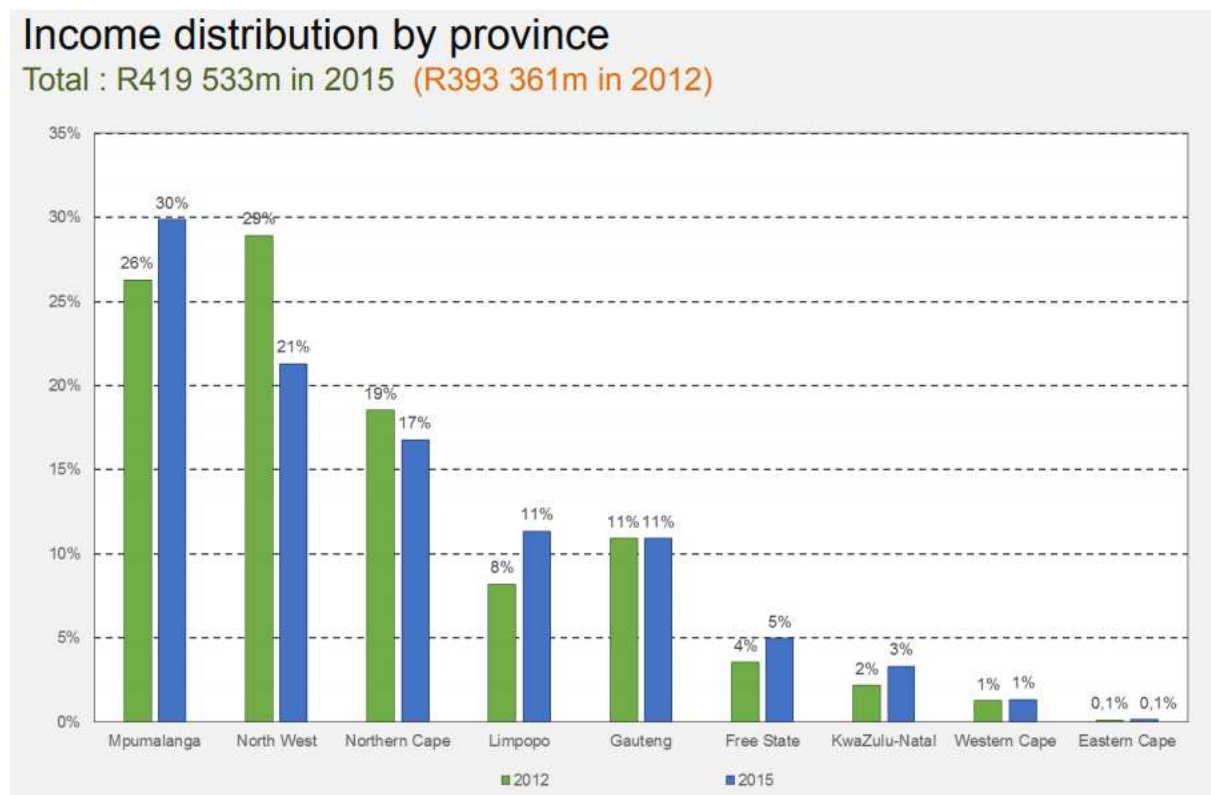


Figure 6: Income distribution from mining activities by province (Source: StatsSA)

The income from mining activities for the year 2012 and 2015 is shown in figure 6. The price of platinum declined from 2012 to 2015 hence the decline in revenue due to decreased demand for platinum and production was cut back after the unrest in the sector following violent clashes in Lonmin, Marikana in 2012.

Table A2 in Appendix 1 further shows an overall increase in households from 2011 to 2016 by 20.6%. The informal households have increased by 6.6% during the period. There is also

The social and economic impact of mining in the Brits area of Madibeng Municipality

an increase in households connected to the electricity grid by 6%. In 2011, there were about 81% households with electricity and in 2016 the number increased to 87%, although majority of these households use electricity for lighting.

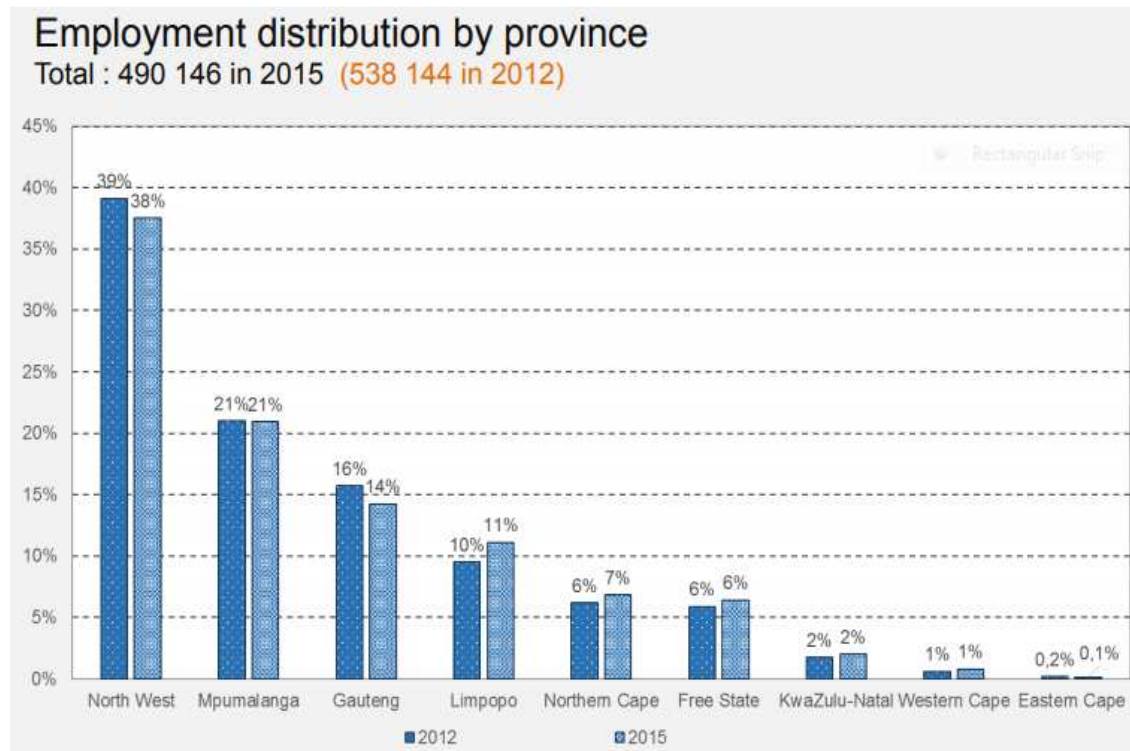


Figure 7: Employment Distribution by Province (Source: StatsSA)

The record shows the mining sector employs more people in the North West province. Although there was a slight decline in employment figures in 2015 compared to 2012, the mining sector still employed considerable amount of people. The mining sector contributed 2.8% of the national workforce and 7.8% of economic activity in 2015. The records show the PGM ore employed 206 764 (38.5%) people in 2012 and the number declined to 198 951 (40.5%) but still had contributed to high number of employment in the sector.

This will attract more unemployed migrant workers to the area for job opportunities. The high influx of migrant workers will bring other challenges. The migrant workers tend to settle next to mining areas. As part of job-seeking, they would look to settle in places where they wouldn't need to use public transport as they have limited resources. The number of informal settlement will increase. Housing is a challenge around the mining area and service delivery in the affected community is strained.

Crime

A reduction in economic activity introduces other social ills. The high unemployment rate in the area may lead to people committing crime to survive. Crime is a major issue in the whole country especially violent crime or murder. The crime statistics recorded crime in the areas of mining communities over a period of 17 years from year 2000 till 2016. There is a high prevalence of violent crimes and as a result there are a number of police stations and satellites stations that service the mining areas. There is a main police station in Brits which reflects a high number of incidences or crimes committed.

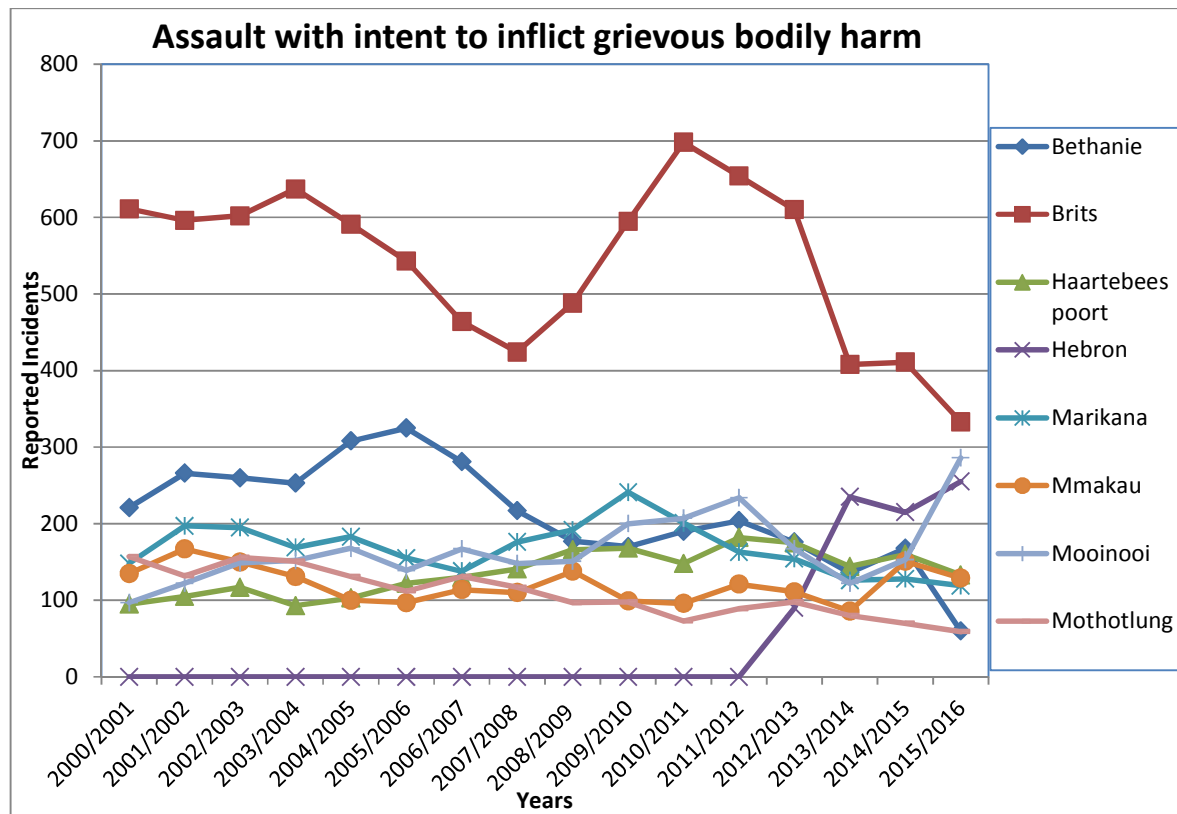


Figure 8: Number of assaults with intent to inflict grievous bodily harm

The number of incidents recorded in the area for respective years is displayed in figure 8. These are contact crimes that are violent in nature. These incidences were recorded in the areas where mining communities live. Figure 9 shows a subcategory of contact crime as murder. The murder cases could be from violent crimes committed. The causes of murder among other reasons are vigilantism or community retaliation in response to crime committed in their area particularly robbery, rape and other forms of theft.

The social and economic impact of mining in the Brits area of Madibeng Municipality

According to the SA Police Service Crime statistics most cases of common assault and assault happen or aggravated by individuals or groups intoxicated with either alcohol or other addictive substances. Most of these cases occur in taverns, pubs and on the streets.

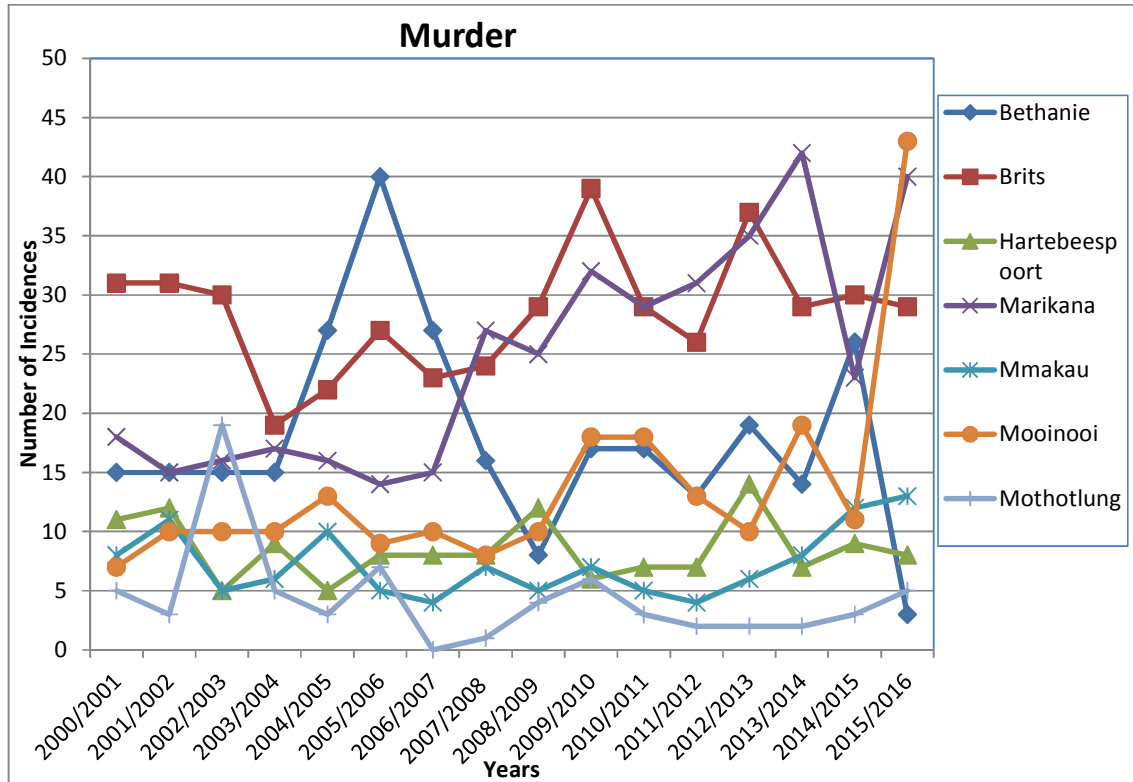


Figure 9: Murder cases in the selected Madibeng area

When crime gets out of hand, it may lead to an increase in murder cases. There have been a number of murder cases reported in the area of mining communities as indicated in figure 9.

The social and economic impact of mining in the Brits area of Madibeng Municipality

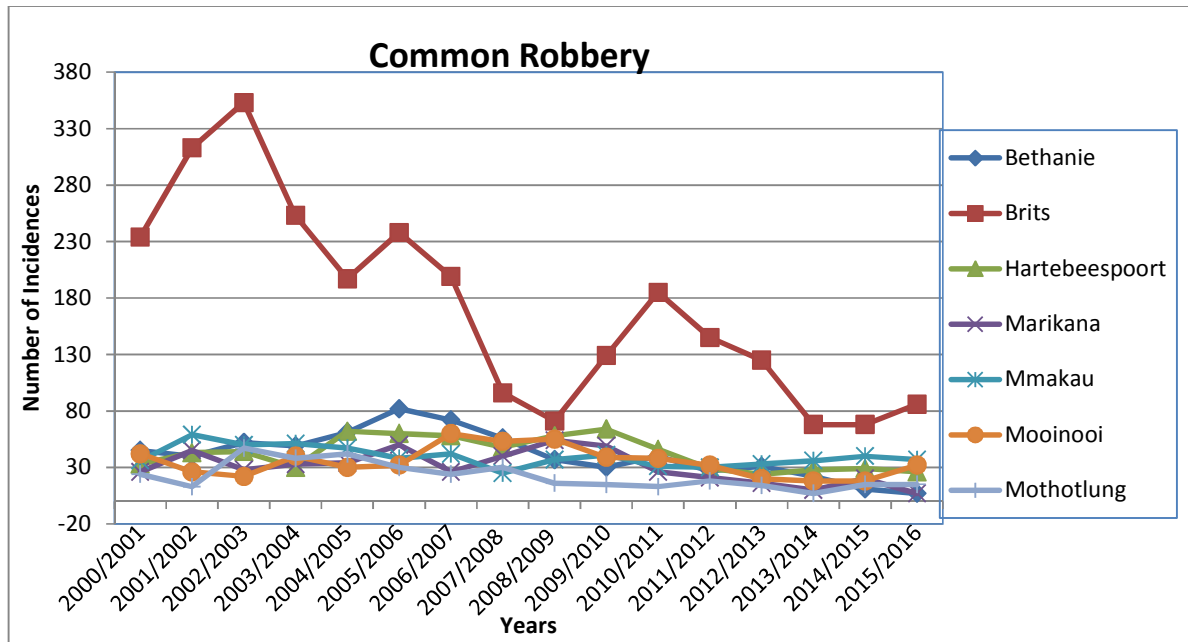


Figure 10: Common Robbery

Common robbery refers to incidences whereby the perpetrators use force or violence rather than weapons to rob their victims. The victims walking long distances during the night with cash, cell phones and laptops are easy targets and so are people walking home from taverns and pubs under the influence of alcohol become victims. The common robbery incidences are high in Brits as highlighted in Figure 10 but slightly lower in most other areas as victims tend to retaliate when confronted when perpetrators don't use weapons which will likely force victims to cooperate in a robbery situation.

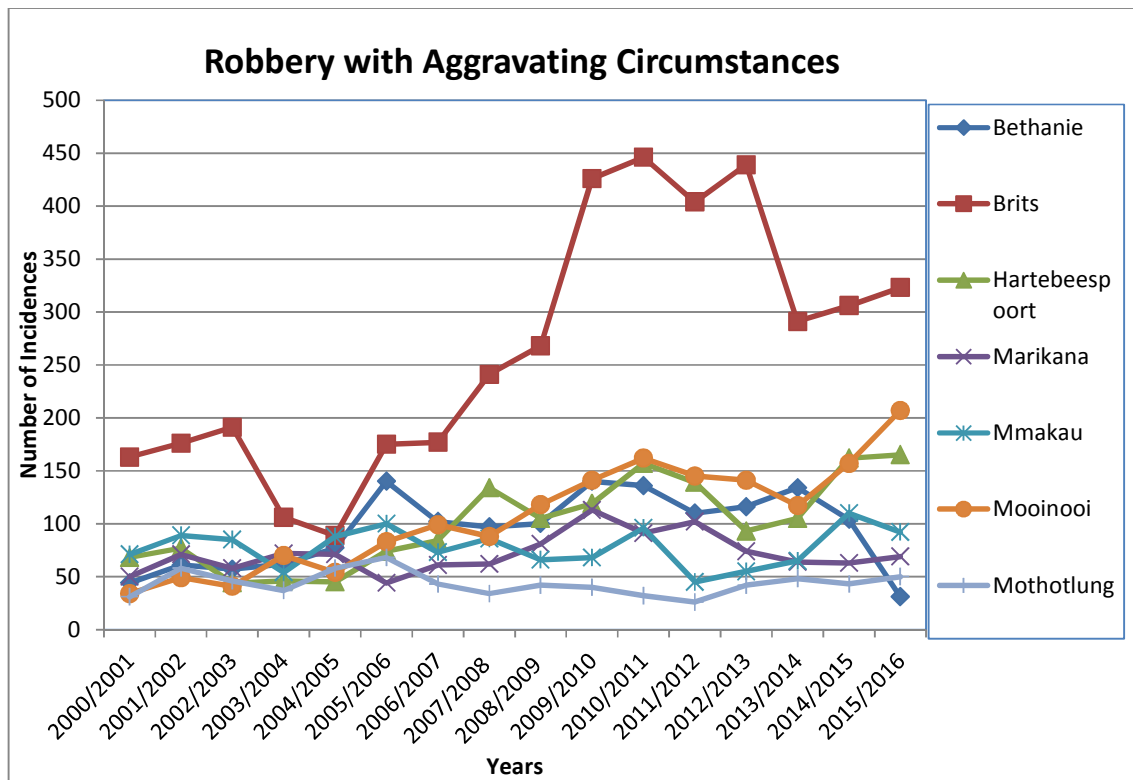


Figure 11: Robbery with aggravating circumstances

Robbery with aggravating circumstances involves the use of weapons like knives and firearms. The weapons can be used to gain access to the property. They can also be used to injure or kill victims. These kinds of robbery are on the increase in the Madibeng municipality.

The items taken during robbery or breakings are items that can easily be disposed of, for cash. The perpetrators usually need or use that cash as a means of living or feeding a drug habit or to finance a lavish lifestyle. The lack of proper street lighting and dense vegetation facilitates the crime in semi-formal settlements.

The social and economic impact of mining in the Brits area of Madibeng Municipality

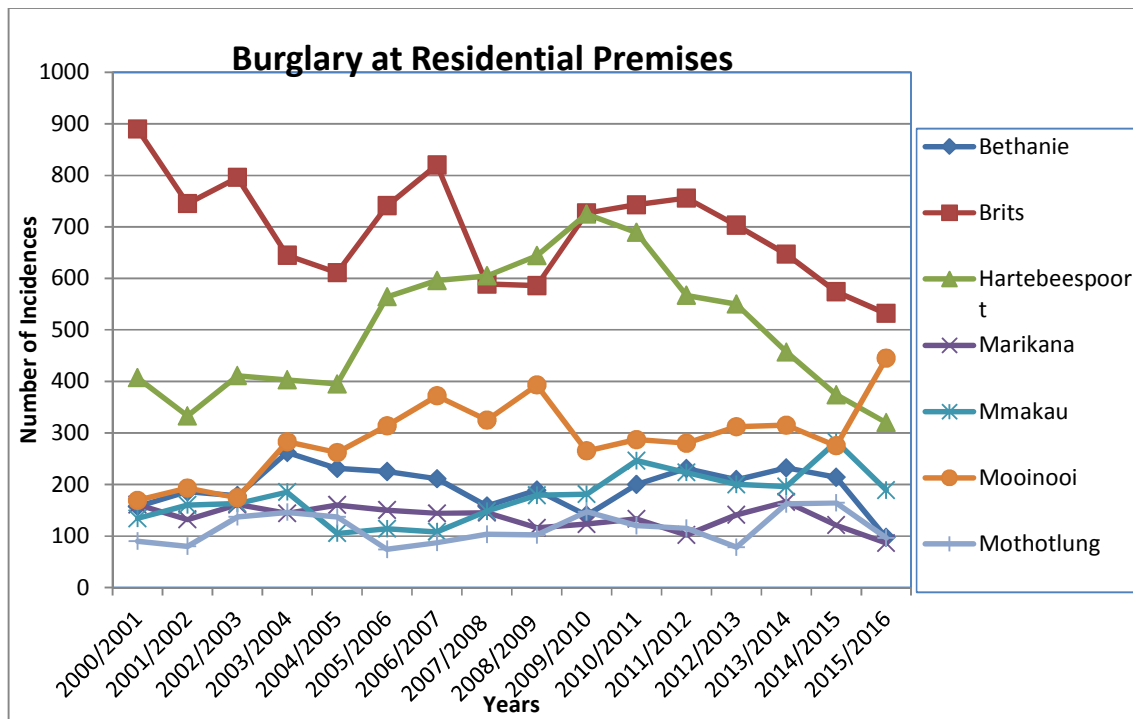


Figure 12: Burglary at residential premises

The burglaries at residential premises are also known as house breakings. The levels of violence during the robberies increased for the period under analysis as the occupants of the residences that were broken into, in most cases were present or aware of what was happening, which could worsen the situation as perpetrators would be at risk of being identified. In aggravated cases, this can lead to murder as a result of occupants' resistance to the crime. The perpetrators mostly use firearms during the robbery hence the prevalence of murder incidences. Items targeted are cash, jewellery, cellular phones, television sets, computers, laptops and electrical appliances.

Crime is a challenge throughout the country and it is made worse by the living conditions. High unemployment also affects the rate of crime in the communities. Most crimes committed are horrendous and violent. Alcohol and illicit drug abuse among communities also contributes to violent crimes. The violent crimes happen in poorer communities and they are affected by high levels of robbery. Murder and rape are also a problem in such communities. Crime thrives due to lack of visible policing resources in the affected community.

The social and economic impact of mining in the Brits area of Madibeng Municipality

The influx of illegal foreigners in South Africa who settles anywhere, where there are prospects of employment aggravates the situation of crime and overcrowding in informal settlements.

The impact of mines on local communities

As part of the research, all the areas where these mining companies operate were visited to assess the development that has been done by different mines. It is also worth mentioning that contact was made with some of the mines to seek more information on their Corporate Social Responsibility (CSR) and they all declined to give the information. The information was thus obtained from their website and annual financial statements. Also included in-here is the information extracted from the approved SLP of different mines, copies of which were obtained from the North-West Regional Office of the DMR.

Bushveld Vametco

Bushveld Vametco is an integrated mining and processing open cast mine 8 km North-East of Brits. Vametco owns the prospecting rights to mine vanadium on the site. The reserves are sufficient to support operations for next 24 years. In the recently released annual report 2017, Vametco reported that they have 483 employees in their books including contractors in their Brits operations. Bushveld Vametco operations are located across 3 farms, Uitvalgrond, Krokodilkraal and Rankotea. There are 117 families who were initially affected by the operation of the mine and were forced to make way for the mining operations to take place. The mining company agreed to pay royalties to those affected families.

The Earnings before interest, depreciation and tax (EBIDTA) for year 2016 was R 47.5 million up from the previous year 2015 of R 15.7 million. For the 1st half of 2017, the company reported increases of 80% with EBITDA at R85.5 million owing to shortage of supply and demand for more vanadium globally.

The social and economic impact of mining in the Brits area of Madibeng Municipality



Figure 13: Vametco processing plant (Source: Bushveld website)

Bushveld Vametco has had several controlling shareholdings changing hands over the years. The acquisition of controlling interest in the BEE shareholding in Vametco by Jaxson 640 has raised it to 78.8%. Their website mentions that this will include a shareholding for a trust focused on empowering historically disadvantaged women and youth in the communities in which Vametco operates with particular emphasis on education, entrepreneurship and enterprise development.



Figure 14: Community notice to handover memo of demands (community flyer)

The local communities (Mothotlung, Rankotea, Mmakau) where the mine is operating has mobilised and demanded that the mine create and employ locals among other things. They also made demands that the mine should provide for some basic services for the benefit of the local communities. Production was stopped for 2 days during the unrest. The mining management further made commitment to attend to the grievances of the community. The analysis from the company's website and annual financial statement shows that the company's balance sheet is healthy and that it has been making profit on regular basis.

Bushveld Vametco Social Labour Plan (SLP)

The mining company submitted the SLP for a period 2011-2016. Bushveld Vametco developed the Local Economic Development Programme (LED) plan. The plan includes infrastructure development, poverty eradication and welfare creation projects. The company aims to assist local government and community structures to implement their development priorities and achieve new economic opportunities through profitable operation of the mine. Bushveld Vametco will integrate their SLP activities into the Local Municipality IDP and address the priority needs of employee households (basic services, housing, road infrastructure).

The social and economic impact of mining in the Brits area of Madibeng Municipality

Action	Deliverables	Target Date
Ongoing consultation with Bushveld-Vametco Unions, LED managers from municipality and community forums on selection and implantation of LED projects.	Minutes of meetings and action plans.	Ongoing
Implementation of LED projects	Performance indicators as per individual project	Ongoing
Continuously monitoring and supporting the implementation of the LED projects.	Regular monitoring of LED projects	Ongoing
Assess the success of LED projects and reassess the appropriateness of the LED programme.	Report on successes and failure of the LED programme.	Annually

Table 4: Implementation of LED Projects

Poverty Alleviation: the mine undertakes to establish a Protected Agricultural Development Project. This would involve the production of vegetables for households use in order to improve nutrition especially for school going children. The infrastructure to be provided includes tunnels and water tanks. Youth from the affected community will be trained to install infrastructure. The plan is to construct 20 tunnels a year over 5 years in the communities of Krokodilkraal and Uitvalgrond.

The project is envisaged to create 35-40 jobs. The budget for the project is R1 million per year over 5 years.

Infrastructure Development: Construction of the road between Mothotlung and Rankotea and further repair the gravel road between Rankotea and Rabokala. This project will involve partnering with the local municipality. The budget is estimated to R1,6 million. The project will start in 2012 and end 2017.

Small, Medium and Micro Enterprises (SMME) Development: a preliminary SMME development strategy will be designed as part of preferential procurement to provide framework for initiatives that could promote the sustainability of enterprises within surrounding labour sending communities. The strategy is based on the principle of outsourcing various contracting opportunities to enterprises operating in surrounding communities.

The social and economic impact of mining in the Brits area of Madibeng Municipality

Bushveld-Vametco has held several SLP workshops with affected community representatives. In one community (Rankotea) the mine conducted separate meetings with opposing factions. In another meeting that was held between the mining company and the municipality, it was highlighted that the mine failed to deliver on most of the projects that the mine undertook to complete. Consequently the trust relationship between the Bushveld-Vametco mine and municipality was broken.

Bushveld-Vametco has since applied to the DMR to amend the LED in the approved SLP of 2012 in terms regulation 44 of the MPRDA. The management team cite leadership challenges within the community as hindering progress on completing the projects. The mine has requested the department to consider the cancellation of the R5 million agricultural projects and replace it with another project in other communities.

Conclusion: The company did not achieve all the projects listed in the SLP. It has since asked for amendment from the department on their initially approved SLP. The department was satisfied with the request and has approved it.

Hernic Ferrochrome

Hernic Ferrochrome is the 4th largest integrated ferrochrome producer in the world. The company was established in 1995 and is located few kilometres from Brits town just adjacent to the N4 highway. It operates 2 mines with 4 furnaces and one shaft under care and maintenance due to economic downturn. Hernic employs 690 permanent and 1600 service provider employees.

The figure 15 below depicts the international historical prices of Ferro Chrome since 2005. The price has remained relatively constant except for the peak in 2008. Based on consistent prices, we can conclude that the company has been performing well on the market as the price has remained constant for over 6 years (The company annual reports could not be found).

The social and economic impact of mining in the Brits area of Madibeng Municipality



Figure 15: Historical prices of Ferro Chrome since 2005³

Hernic is listed in the Integrated Economic Growth strategy of Madibeng municipality as the key mining role player especially due to its close proximity to Brits town. The Hernic website announces that the company has applied for voluntary business rescue from 21st September 2017.



Figure 16: The village next to Hernic Ferrochrome (De-Kroon)

³ <http://www.infomine.com/investment/metal-prices/ferro-chrome/all/>

The social and economic impact of mining in the Brits area of Madibeng Municipality

Just less than a kilometre across the R55 main road from the premises of Hernic ferrochrome, there is an informal settlement. This settlement has been there for more than 5 years and continues to grow over time. Most of the people staying there work in Hernic and those who are unemployed are looking to get employment in the mine. There is a primary school in the area but there are no basic services (no water or electricity) and no sanitation. The residents depend on the municipal truck to deliver water on some days.



Figure 17: Tshaba Dimaketse (Bokfontein)

Along the N4, towards the west, there is an informal settlement called Tshaba Dimaketse (Bokfontein). The residents there have lights but no running water nor sanitation in their shack dwellings. The picture above shows the water tank where residents get their drinking water. The residents work in the neighbouring Hernic mine and Samancor mines.

Hernic Ferrochrome Social Labour Plan (SLP)

Hernic was involved in the following LED projects: Brick Making project, Bokfontein Multi-Purpose Community centre project, Horticultural project, School upgrade project and Piggery project in the surrounding communities. Hernic identified the following as their future projects: resettlement of De-Kroon squatters (1km from Hernic premises), resettlement of Ras Primary school, supporting Botlhabelo Secondary school with equipment and renovation, supporting Madibeng municipality to establish a Business incubation centre.

The social and economic impact of mining in the Brits area of Madibeng Municipality



Figure 18: Bokfontein Community Hall

Conclusion: Although Hernic can point to completed projects, they still have a lot to do in the surrounding communities especially De-Kroon relocation project. It reflects very bad on their CSI, as the squatter camp with no electricity, water and sanitation houses some of their employees.

Lonmin

Lonmin is the platinum mining company that operates mainly in Marikana, Brits in the Western limb and consists of 11 Shafts. The Company operates on the traditional land of the Bapo ba Mogale. About 6 of the shafts are approaching end of life and they are either on declined production or under care and maintenance.

The social and economic impact of mining in the Brits area of Madibeng Municipality

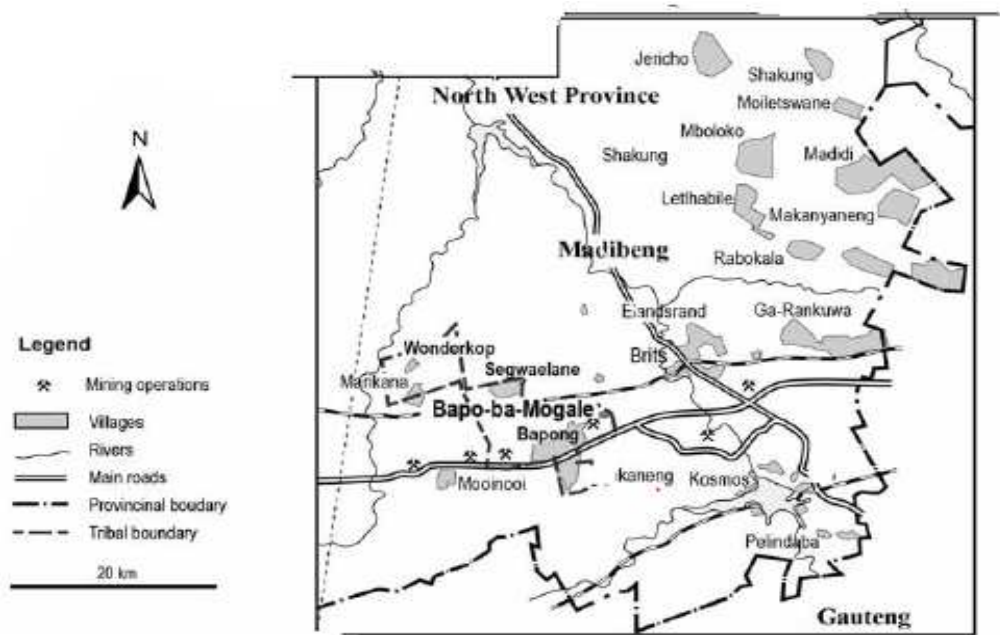


Figure 19: Bapo ba Mogale Tribal authority area⁴

Lonmin is arguably the largest mining company operating in the municipality and employing more people than any other mine in the area.

Lonmin Social Labour Plan (SLP)

The copy of SLP from Lonmin was not made available during the research by the DMR due to challenges being experienced by the company currently. The community and NGO's has challenged the non-compliance of Lonmin to their current SLP. The company is being accused of unilaterally intending to change the SLP without consultation and the department has taken the SLP for review. Lonmin has delayed their 2017 annual financial statement release.

In the preliminary findings, DMR has found that Lonmin has failed to comply with their SLP pledge between 2014 and 2017. (Faku, 2017).

⁴ Dealing with the tribe: The Politics of the Bapo/Lonmin Royalty-to-Equity Conversion

The social and economic impact of mining in the Brits area of Madibeng Municipality



Figure 20: Wonderkop informal settlement next to Lonmin (Marikana) mine

The road infrastructure in some areas needs to be developed as well as housing. There is no adequate housing in the Wonderkop and Marikana area. The influx of migrant workers continues in the area. In the last 2 years, Lonmin has restructured their operations which meant cutting thousands of jobs. Those who lost jobs add to the high unemployment in the area and sharing of already strained services.



Figure 21: Andrew Saffy Memorial Hospital

Andrew Saffy Memorial hospital is situated in Wonderkop. It was built by Lonmin.

The social and economic impact of mining in the Brits area of Madibeng Municipality



Figure 22: Some of the family units in Wonderkop for Lonmin employees

Samancor Chrome

Samancor Chrome operates in Mooinooi next to Bapong village under the Western Chrome Mine. It is the 2nd largest ferrochrome producer in the world. It consists of 3 underground mines, 2 surface beneficiation plants and 2 tailings re-treatment plants. Samancor established the Samancor Chrome Foundation (SCF) to cater for their SLP. The foundation is responsible for implementing, coordinating and managing sustainable development initiatives.

Samancor Chrome Social Labour Plan (SLP)

The financial provision for community investment projects is calculated at 1% of pre-tax profit. The budget is focused on ensuring equitable support for both Rustenburg and Madibeng municipalities and their IDP commitments. The company projected a budget of R65.1 million available over 5 year period. The company further identified Mbashe Local Municipality in the Eastern Cape as the major labour sending area and thus committed to support economic development from year 2011. It was reported that 70% of the budget (R45.5 mil) would be spent on LED initiatives in both Rustenburg and Madibeng municipality and 30% (R19.6 mil) would be spent in the Mbashe local municipality.

The social and economic impact of mining in the Brits area of Madibeng Municipality

In the Madibeng municipality the mine would support Infrastructure Development Project (township development) and Entrepreneurship Development Project (Broiler Farm) to the total cost of R23 mil over 5 years. Broiler farm is a poverty alleviation project.

Housing and Living Conditions

Samancor provides 119 single and married employees with quarters next to their operation which accommodates 20% of their workforce. There is a constraint in housing for the entire Madibeng municipality which also affects mine employees. There is poor facilitation of new development of housing infrastructure and services. There is a challenge of land available for development in the municipality due to tribal land claims. As part of SLP, Samancor will monitor progress and management of housing strategy at the mine.

Procurement

Samancor monitors procurement in terms of Mining Charter and DTI Codes of Good Practice Preferential Procurement principles. As indicated in their SLP, the mine will setup comprehensive targets to increase local procurement opportunities through Enterprise Development (ED) and SMME mentoring programmes. ED is established with long term sustainability in mind and will target black owned and managed enterprises originating from the mining communities.

Tharisa Mine

Tharisa mine is situated between the area of Marikana and Mooi-nooi. The demarcation of the area puts the mine in 2 municipalities (Madibeng and Rustenburg local municipalities). Due to this, Rustenburg tends to be the labour sending region for the mine. They mine PGM and chrome concentrate and have estimated open pit life of 18 years and further estimated 40 years underground. Mine has operated since 2009.

Social Labour Plan (SLP) for Tharisa mine

Tharisa says they have constructed 822 houses and provided infrastructure like roads and sanitation. Through the Tharisa Community Trust which was allocated 6% of the mine ownership, to benefit the community where Tharisa is operating. Tharisa has established a school food forest for Retief primary school in Mmaditlhokwa village.

The social and economic impact of mining in the Brits area of Madibeng Municipality

The SLP for Tharisa shows poor levels of educational profiles in that area. This results in shortage of skilled labour which is a challenge for the entire North West province. 7% of population has higher education in NW province.

5. Discussion and Recommendations

The government has outlined a roadmap for National Development Plan (NDP) 2030 to help grow the economy and improve service delivery. South Africa has been identified as a very unequal country. One of the goals of NDP 2030 is to reduce and eradicate inequality, poverty and unemployment. The gap between the rich and the poor is widening in South Africa.

The Bushveld complex which covers parts of Madibeng municipality has large deposit of platinum and chromate reserves. The mining companies in the area were contacted with a set of questions to answer. They promised to respond but that did not happen. Most information used in the research was secondary and obtained from their websites and financials where available. Their input would have put things in perspective on their contribution to the communities.

The youth population has declined through Census 2001, 2011 and CS 2016 in Madibeng municipality. The decline could be attributed to different reasons. As the group is regarded as active, they may leave the region to pursue other interest in other provinces. They may also have left to study in other provinces and settle outside their region of birth upon completion of their studies. There is also a possibility of mortality that may have led to reduction in the numbers.

Youth unemployment is the greatest challenge in the whole country. The Centre for Development and Enterprises (CDE), which is an independent policy research and advocacy organisation, labels youth unemployment as a socio-economic crisis. One of the challenges for the youth is that they are unemployed and unemployable due lack of proper skills. Mining is a labour intensive exercise. Due to the high influx of migrant workers who seek employment, the resources are constrained. The local communities are forced to share those resources with the migrant workers. Mining companies' only sees their obligation to the community as offering employment to locals contrary to their SLP's. The numbers of migrant workers in most cities maybe understated by Stats SA as most foreign nationals are still un-documented.

As a recommendation, the decline in youth numbers in the municipality needs to be further analysed. This can be done by analysing the number of those who leave formal school and further their education in other provinces and regions as the municipality doesn't have institutions of higher learning except for few FET colleges. The medical files can also be

The social and economic impact of mining in the Brits area of Madibeng Municipality

scrutinised and look at the prevalence of common diseases in the region that may lead to death.

The Madibeng Municipality has many mining companies which need to beneficiate the local communities. The poverty in the region can be reduced and eradicated if the resources are utilised to benefit the locals. The collaboration between the municipality, local communities and mining companies should be enforced. None should operate in isolation. The mining companies must fast track sustainable economic opportunities and development in the areas of mining. Housing for mineworkers remains a challenge in the entire country. The delivery of housing, water and sanitation infrastructure must not be left to government or municipality but the mining companies must collaborate with the government to deliver essential services to the affected communities.

The royalties paid from mining to the locals should not absolve the mining companies to contribute towards infrastructure development and uplift standard of living in the community. The mining companies should not assume that once they have negotiated with the local chief, the community have no say or interest in the company's operations.

Mining companies do acknowledge the SLP as part of MPRDA legislation and compliance being obligatory. Failure to adhere to their SLP may lead to licence to mine being suspended or even withdrawn. Thus the mining companies ought to take part in forums that include local municipality and councillors (who represent the interest of communities). These forums will help keep the development plan in check. The mining companies and DMR must undertake to educate the communities about the importance of SLP. They must help them understand that the SLP is part of the mining legislation.

In consultative interaction between the mines and community, unrelated items were raised by the community. This showed the breakup in relations between the mining companies' executives and the community representatives. In some occasions, it became clear that the community representatives once elected, they neglect to consult with the broader community but only represent their narrow interests.

Most of the SLP's from the mines are more or less similar. They have interacted with the municipality to identify LED through the IDP. It seems with all the funding available from the mines for these projects, most of them do not see light of day. The assertion by the municipal official interviewed about the minimal contribution of the mining companies is clear and worrying. It is important for DMR to enforce implementation of SLP's.

The social and economic impact of mining in the Brits area of Madibeng Municipality

The mining companies can establish the database of suppliers who should include the local communities initiated companies. They must establish entrepreneurship and business incubation hubs that can help equip women and youth in those communities. Communities require businesses that can sustain the participants even after the mining company has withdrawn their support or incubation.

The problem of youth unemployment can also be tackled by similar interventions, whereby mining companies offer support for higher education to the youth in the form of bursaries or learnerships. The youth can be encouraged to study at Universities and colleges and be offered in-service training until they qualify as artisans who can be employed locally or in similar businesses and operations in other regions.

Mining communities can no longer afford to be passive with mining activities happening in their backyard. They have to be involved and hold all stakeholders accountable for developing their area. It can no longer be business as usual. The mining licensing process should be transparent so that the community can scrutinise all the promises the mining conglomerates are making. Public engagements should be conducted in the presence of municipal representatives and ward counsellors so that the public can know what the mining companies intend to do.

There are many success stories of similar developments and CSI in communities conducted by other local conglomerates. When Eskom proposed to build Medupi power station in Ellisras (Lephalale), there was resistance from the local community and environmentalists. The local coal mining company, Exarro and Eskom embarked on a stakeholder engagement with the local communities in the area of envisaged coal power station with an extensive Environmental Impact Assessment. Eskom, Exarro, Sasol, local municipality and other local stakeholder formed Lephalale Development Forum, which was to oversee the infrastructure development of the Lephalale area. The collaboration with the local municipality was vital for the success of the project.

The construction of Medupi provided employment for the locals, training opportunities for artisans and community development with roads construction, community hall, schools and other important infrastructure developments. At its height, the Medupi project attracted 14 000 workers to the site. Many global companies came on board during the construction phase. They have equipped many locals with technical skills that they can use in their careers going forward. The Eskom Medupi CSI plan was focused on empowering and improving in education, healthcare, infrastructure, security and sustainability. Eskom

The social and economic impact of mining in the Brits area of Madibeng Municipality

contributed by upgrading the three main roads to the value of R180 million, new sewage treatment plant, donated six mobile classrooms to Ellisras Hoerskool and Laerskool, and donated three wellness clinics and medical equipment worth R3.8 million to local clinics in Ga-Seleka, Fox Odendaal, Marapong, Shongoane. The project invested R2.3 billion in housing infrastructure in Lephalale. (KILIAN, 2014). Eskom has contributed extensively to poverty upliftment in Lephalale and all surrounding areas.

A similar approach can be adopted by all this mining companies in the Madibeng area. All the mining companies, Madibeng municipality and all local mining communities must form a Developmental Forum that will propose and oversee all infrastructure development in the entire area of mining and neighbouring villages for beneficiation purposes. Madibeng lists 10 active mining companies under their jurisdiction. Although global platinum and chromate prices have declined over some time, the mining companies are still making profit that can be shared with the local communities in beneficiation projects. There are schools in the area which were built years back. The schools need to be modernised and have the right technology to produce better learners. The proposed Developmental Forum can pay into a community trust fund.

Most mining products in the area are transported by road and rail, with road transport being prevalent. They use heavy duty trucks which greatly affect the road infrastructure. There is a need to upgrade the tar road to an appropriate standard that can withstand the use by heavy-duty trucks. In some instances, they use gravel roads. Maintenance of these roads needs to be done continuously and regularly. This is not done judging by the quality of the road surface observed in places like Mothotlung, Marikana, Wonderkop, Segwaelane and Bapong.

Most of the mines in this region employ residents as contractors or part-time workers. Working on a part-time contract means workers have reduced benefits. Workers will not qualify for housing allowance or mining hostel houses in broader terms. Mining communities would therefore carry the burden of sharing their limited services with those mining workers.

Mining outputs are affected by commodity prices due to currency fluctuations and global demand. When the mine has made less profit, they are forced to reconsider their expenditure. In most cases, there will be job cuts and operational costs cuts. The other aspect they consider is cut on their corporate social responsibility programme. Cutting on CSR affects the mining SLP which in essence means the mining companies are neglecting their responsibilities. Can the state through DMR allow deviation from SLP? SLP is MPRDA

The social and economic impact of mining in the Brits area of Madibeng Municipality

legislation requirement and no deviation can be allowed. If the mining companies do not deliver or deviate on SLP they will be in breach of their licensing condition.

Mining License Application

Most mining communities are not informed about the mining right application and thus do not know much about the SLP and its contents. If the community is not informed about such critical documentation, how are they going to hold the mining right holder accountable? Being a communal land, the chief tends negotiate on behalf of the community which is not the right approach. The virtue of community staying in the mining area, they are interested and affected parties (I&AP) thus are allowed to be involved in public participation. The voices of many mining communities are suppressed. The local municipality is also urged to participate in these forums, which will help the community identify societal issues that can be included in the SLP.

Further to this, the mining communities are not consulted during these applications. In my interaction with community members, it was clear that the public hearings are never conducted extensively. The DMR officials are not challenged for their failure to hold the mining companies accountable. Some communities are enticed and coerced by the payments of royalties by the mining companies.

The conflicts that arise from time to time from mining communities can be avoided (Community uprising at Bushveld Vametco on 25 July 2017 and Bapo ba Mogale debacle) as they affect production and eventually revenue.

Mining Charter

In issuing the mining licenses, the DMR must consider equity shares to mining communities as contained in the mining charter. The charter makes provision of 30% equity shares as preference for the hosting mining community. This will ensure community participation and public consultation by officials. The formation of community mining companies will also ensure that the mines deliver on their SLP promises. The equity shares must be held in the trust fund.

The mining charter also mentions the housing constrains for the mining workers. The mining companies have enough resources to address this social ill. The areas where mining happens are not well developed even though the mining has been operating for more than 20 years in the region. The burden of providing for housing, infrastructure development and

The social and economic impact of mining in the Brits area of Madibeng Municipality

services cannot be left in the hands of the municipality alone when mining companies are declaring millions worth of profits every year.

Royalties

As mentioned above, the payments of royalties to the mining communities are also a contentious issue. Mining companies pay the royalties to the communities which are original residents of the area including the local chief. The royalties are distributed to different families. In some instances the royalties are earmarked for community projects funding. There have been reports of misappropriation of funds (royalties) in some of these communities. The community in Rankotea, where Evraz Bushveld mine operates has asked the North-West administration to investigate such irregularities previously. Then premier of North-West Ms Edna Molewa appointed the commission of enquiry into management of royalties in 2010. The commission found gross misappropriation of funds and maladministration. The administrator was appointed by the court to oversee this account for a limited period. (SAPA, 2014)

The Bapo ba Mogale has also asked the public protector to investigate the maladministration and use of royalties paid by Lonmin into the Bapo ba Mogale community D-Account. An amount of R800 million of royalties has been misused or it's missing. The public protector released report has highlighted gross misappropriation of funds by the administrators and the Department of Local Government and Traditional Affairs on the Bapo ba Mogale community D-account thus depriving the community the financial resources which would have been used for the community's benefit with regards to additional decent housing, proper health care facilities, food, water and social security, employment opportunities, more bursaries to deserving students, infrastructure and poverty alleviation. (Madonsela, 2017).

The Role of Local Municipality

The municipality is the ultimate government agency which is in direct contact with the people. They are tasked with delivery of services to the people. They are dependent on the funding from the fiscal. The municipality drafts the (IDP) as per their priorities during the public participation. The gathered IDP is consolidated by the committee within the municipality and then submitted to Council for final approval. Council is a public meeting attended mostly by community representatives, Wards councillors, stakeholders. All the stakeholders involved (Mines, community, municipal management) must derive Social

The social and economic impact of mining in the Brits area of Madibeng Municipality

Management Plan. This will help manage community expectations. The mine has a definite life expectancy and thus some of the projects need to be self-sustaining long after the mines have left.

When IDP is approved against the available budget for the municipality, the mining houses should contribute towards the capital expenditures in infrastructure development projects. The municipality agrees through economic development department that the mining companies do not contribute as much as they need to. They concede that there are housing constraints and lack of basic services in the affected mining communities where mining companies could intervene and assist financially. (Attached Annexure C).

Then mines meet with the municipality bi-monthly to discuss other related issues that affect their operations and the community. The mines are mostly seen as employers than economic partners by the municipality and community. Access to clean water is a challenge throughout the municipality. Alternative sources of water can be explored including creating boreholes for affected communities.

The StatsSA data has highlighted the poor levels of higher education achievers in the North West province. The youth in this province must be encouraged to study through bursaries which the mining companies must establish. Higher education fees for poor students in South Africa are a challenge. The bursaries can take off the burden on poor families. Although most mining houses have Adult Based Education and Training (ABET) centres on their premises, the skills development of their workforce remains a key to upskilling them.

Madibeng needs specialised colleges for further education. The mines have attracted the migrant workers from as far as Eastern Cape. Majority of mineworkers are from outside the region or province. The mines must embark on scarce skills development for the youth from mining communities. Brits can be developed to be one of metropolitan towns and the centre of economic activity and economic hub in the Northwest province.

There is shortage of clinics in the community. The mining houses have their in-house clinic or health facility on the premises to cater for their employees but the local communities do not have access to those. The mining operations brings with them environmental issues that may affect the local community. The access to equipped health facility for local community is important. The mines must build those for the community as part of their SLP.

Further Research

This research has exposed the lack of contribution from some mining companies. There management in charge of CSI projects were not cooperative and refused to give information or even interviews on their role in affected communities. There are recommendations for further research in these areas. The role and influence of municipality in joint venture with the mines in these areas must be well defined and enforced. It was clear that the Department of Mineral Resources fails to hold the mining houses accountable. It is therefore recommended that the department looks at the feasibility of forming a mining regulator that can deal with a variety of issues like safety at mines and socio-economic impacts.

The transparency in the mining sector, be it by mining companies (management) or the department must be investigated to expose their dealings and conduct. Also the environmental issues by the mining companies can be investigated. What type of waste generated by the mine and how is it treated and its long term effect on the local community.

6. Conclusion

South Africa is a mining community in its entirety. South Africa has one of the best mineral resources legislative framework in the world. It is investor friendly and tends to neglect the mining communities or accountability of mining companies towards CSR. The mining sector can still do much to uplift the standard of life of the citizens. The mining sector is the leading sector in terms of employment in the Madibeng municipality currently. This research shows that the communities are under-serviced and there is lack of proper infrastructure. The mining companies, local communities and the Madibeng municipality need to work together. This collaboration if all stakeholders are committed to it will eradicate the high unemployment and poverty in the region.

With the influx of migrant work seekers in the area, people tend to share houses or erect shacks. This increases the challenge of housing and lack of services in the municipality which in turn will lead to increased informal settlements like the one next Hernic mine. The resources will continue to be under strain. When job seekers do not get employment, they may resort to criminal activities to survive hence the problem of crime in the area. The mining companies see the housing constraints as the responsibility of government and municipality, whereas the government also passes the bug to the mining companies to provide housing for their employees. Most mining companies do not offer employees permanent employment but only temporary employment which would effectively mean reduced benefits that exclude pension fund membership and housing allowances.

In their application for mining licenses, the mining companies make many promises on their SLP. This document is one of the requirements for the mining license to be issued which ensures that mining communities benefit from mining beyond employment and taxes. The Centre for Applied Legal Studies (Wits University) found out that mining communities are not aware of the mining companies' commitments made in SLP. The communities and the municipality should hold these companies to account after each and every financial year. The Department of Mineral Resources (DMR) must also be involved and audit the mining companies regularly. As the custodian of mining sector, the DMR must be visible in mining communities. They must periodically send inspectors to see and monitor the developments in mining communities. The inspectors must also hold public hearing to see if the local mining communities are well serviced by these big corporate global companies.

The social and economic impact of mining in the Brits area of Madibeng Municipality

Some of the mines are affiliated to the SA Chamber of Mines. The chamber has a code of conduct for their members. The chamber must also enforce compliance with the Mining Charter. Their interest should not be for the mining companies only but also for the mining communities. The role of the SACoM appears to represent the interest of mining companies and they are very silent on community issues.

Due to the decline in demand of the PGM's, the mining companies have in recent times retrenched thousands of workers. These high job losses come with the burden on the community with more people not being able to provide for their immediate families. Also the unrest in the mining labour industry due to high salary demands and better working conditions has affected the price thus making the global market to seek for alternative application technologies.

Mining companies need to be ethical and responsible in their business operations. What they promise to do in their SLP's must be done. It is in the interest of business to reduce poverty and create sustainable employment. In the drafting of SLP's, the mining companies must consult with the broader communities and consider their input in the final report. There is a need to reconsider the change in legislation for SLP drafting to enforce public participation which will also consider the municipal Spatial Development Framework by enforcing local municipality involvement in public participation.

The local municipality is a stakeholder in this mining venture under their jurisdiction. The role and involvement of the municipality must be clearly defined. Mines pay royalties to the state (national government) in limited cases it also pays to mining community or royal houses but not to the municipality. The local municipality only enforces municipal by-laws that are affected by mining operations. Information from municipal official is that the mines are not doing enough in the area of mining. The local municipality as the agency of the government must have access to the SLP and help enforce the undertaking by the mining companies and hold them accountable.

MPRDA 28 of 2002 states that the mining company must provide financial resources for a prescribed social and labour plan for granting of mining right. This is not an optional provision and thus in cases where the mining companies are found not to cater or cut on their SLP provision they must be found to be in breach of legislation. The minister of DMR or Director-General has a duty to ask the mine to comply with this section of legislation or risk losing their licence. If the mining company does not correct their behaviour then the licence

The social and economic impact of mining in the Brits area of Madibeng Municipality

needs to be suspended. It is clear from the research that the DMR are failing in their duties to hold the mining companies accountable on their provisions of SLP.

There is uncertainty on legal framework. The DMR has introduced an amended Mining Charter which has since been suspended by the high court due to non-consultation. Mining investors are mostly foreigners or global conglomerates. The uncertainty on legislation brings anxiety to investors and they end up disinvesting and looking for more stable environments. The mines ownership exchange hands far too often due to those uncertainties. On the economic front, the rand-dollar exchange rate affects the commodities continuously. The economy cannot afford labour dispute and community uprisings, but these have been regular scenes at the mining sites. The role of each stakeholder must be defined.

Active corporate citizenry should be encouraged. Mining communities are also stakeholders and should not be overlooked by other authorities. CSR projects if they are well funded and executed, can benefit the area in a big way and reduce poverty. In instances where the chief is in charge in an area, it must be made clear that he will not negotiate on behalf of the entire community but he needs to involve the community by forming a committee which will represent the interest of the entire community. Chiefs are seen to be negotiating with mining companies only for their own benefit. Public participation should be a key during these protracted engagements.

With over 10 mines in the Madibeng local municipality which have been operating for many years, the infrastructure should have been more developed. Reality is that the communities are still reeling in poverty and services are not provided in many communities even though the royalties are paid to relevant recipients. The voice of the mining communities can no longer be suppressed by the authorities and mining giants. Civil society organisations must assist the rural communities to raise their voices for public participation. The democratic processes recognised by different documented legislations must be observed.

The South African Chamber of Mines in representing the interest of mining companies and investors, must also know that the interest of mining communities are equally important and their voices will have to be amplified and they need to hold their members accountable and ethical as they say in their guiding principles. The issues of corporate governance are mandatory in global conglomerates.

The mining companies, SA Chamber of Mines, Department of Mineral Resources, mining communities and other relevant stakeholder needs to realise that the Mining Charter is not a

The social and economic impact of mining in the Brits area of Madibeng Municipality

fixed legislation. It needs to be changed continuously to make the mining sector to be effective and help contribute to South African economy. It should also be reflective on the transformation agenda of the country. The local municipality's role must be defined and documented as legislation to have their responsibilities in the mining sector to help benefit the local mining communities.

Local procurement is the key to help entrepreneurs in the local community. The mining companies should offer preferential procurement decision to the locals. This will help the community by promoting economic activity and creating employment.

The trust relationship between the mining companies and communities need to be salvaged and built. The communities believe the mining companies make a lot of promises that they don't fulfil. These lead to strained relationships. Further to this, in most mining communities there are 2 or more opposing groups which hold meetings with the mines. The disputes that are raised by these groups often end up in lengthy court battles. Mine management are also seen to divide the communities in such disputes most of which are still unresolved to this day (Bapo ba Mogale, Rankotea community).

The mining companies must introduce learnerships and apprenticeships for school leavers. There are a number of skills development initiatives that can be formalised with Department of Higher Education and SETA's. The mines must contribute towards bursaries for the youth of all the affected areas. Mining beneficiation should be visible in Madibeng. Poverty could be alleviated if the mining companies takes the CSI initiatives serious and not as part of legislation to be fulfilled. The mining sector remains largely untransformed. Women and youth are still not visible in the sector. The mining operations in the Madibeng municipality are not fully benefitting the local mining communities and therefore the poverty levels remains very high. Mining companies continue to draw high profits at the expense of affected communities.

References

- Badenhorst, P., & Olivier, N. (2012). Expropriation of 'Unused Old Order Rights' by the MPRDA: You Have Lost It! *Agri SA v. Minister of Minerals and Energy (Centre for Applied Legal Studies as Amicus Curiae)*(2011) 3 All SA 296 (GNP).
- Badenhorst, P. J., & Olivier, N. (2011). Host communities and competing applications for prospecting rights in terms of the Mineral and Petroleum Resources Development Act 28 of 2002. *De Jure*, 44(1), 126-148.
- Bolden, R., Gosling, J., Marturano, A., & Dennison, P. (2003). *A review of leadership theory and competency frameworks*. Retrieved from
- Cawood, F. T. (2004). The Mineral and Petroleum Resources Development Act of 2002: a paradigm shift in mineral policy in South Africa. *Journal of the Southern African Institute of Mining and Metallurgy*, 104(1), 53-64.
- Cook, S. E., Bohlin, S. J., & Gips, R. L. (2011). The business of being Bafokeng: the corporatization of a tribal authority in South Africa. *Current Anthropology*, 52(S3), 000-000.
- Crowley, K. (2017, 13 June 2017). Platinum plunge ignites social unrest as villagers turn on mines. *Moneyweb*. Retrieved from <https://www.moneyweb.co.za/mineweb/platinum-group-metals/platinum-plunge-ignites-social-unrest-as-villagers-turn-on-mines/>
- Downey, H. K., & Ireland, R. D. (1979). Quantitative versus qualitative: Environmental assessment in organizational studies. *Administrative Science Quarterly*, 24(4), 630-637.
- Esteves, A. M., & Vanclay, F. (2009). Social Development Needs Analysis as a tool for SIA to guide corporate-community investment: Applications in the minerals industry. *Environmental Impact Assessment Review*, 29(2), 137-145.
- Eweje, G. (2006). The role of MNEs in community development initiatives in developing countries Corporate Social Responsibility at work in Nigeria and South Africa. *Business & Society*, 45(2), 93-129.
- Faku, D. (2017, 12 September 2017). Lonmin must meet pledge - Department of Mineral Resources. *Business Report*. Retrieved from <https://www.iol.co.za/business-report/energy/lonmin-must-meet-pledge-department-of-mineral-resources-11177870>
- Hamann, R. (2004). *Corporate social responsibility, partnerships, and institutional change: The case of mining companies in South Africa*. Paper presented at the Natural Resources Forum.
- IoDSA. (2016). *King IV Report on Corporate Governance*. Retrieved from Johannesburg: https://c.ymcdn.com/sites/www.iodsa.co.za/resource/resmgr/king_iv/King_IV_Report/IoDSA_King_IV_Report_-_WebVe.pdf
- Jane Korinek, I. R. (2016). Local content policies in mineral-exporting countries. *OECD*. <http://www.oecd.org/tad/benefitlib/South-Africa-country-note.pdf> Retrieved from <http://www.oecd.org/tad/benefitlib/South-Africa-country-note.pdf>
- KILIAN, A. (2014). Mega power project's community, business spin-offs showcased. Retrieved from Engineering News website: <http://www.engineeringnews.co.za/print-version/medupi-power-station-project-improving-local-communities-2014-02-19> Retrieved from <http://www.engineeringnews.co.za/print-version/medupi-power-station-project-improving-local-communities-2014-02-19>
- Korinek, J., & Ramdoo, I. (2017). Local content policies in mineral-exporting countries.
- Lehohla, P. (2008). South African Statistical Quality Assessment Framework (SASQAF). Retrieved from http://www.statssa.gov.za/standardisation/Statistics_SA_Statistical_Quality_Assessment_Framework.pdf

The social and economic impact of mining in the Brits area of Madibeng Municipality

- Madonsela, A. T. (2017). *Allegations of maladministration in the Bapo ba Mogale Administration*. Retrieved from
- Mcilhagga, B. (2018). New mining company hopes to create more jobs [Press release]. Retrieved from <http://www.sabcnews.com/sabcnews/new-mining-company-hopes-create-jobs/>
- Minerals, M. Petroleum Resources Development Act. *Mining Charter and Royalty Act. Mining Charter, Department of Mineral Resources*. (2016). Retrieved from <http://www.dmr.gov.za/gazetted-mining-charter-2016/summary/281-government-gazettes/9612-gazetted-mining-charter-2016.html>
- Mnwana, S. (2014). Mineral wealth—'in the name of morafe'? Community control in South Africa's 'Platinum Valley'. *Development Southern Africa*, 31(6), 826-842.
- MPRDA, M. (2002). Petroleum Resources Development Act 28 of 2002, 3 October 2002. *Government Gazette*, 448(23922).
- Richards, J. P. (2009). *Mining, society, and a sustainable world* (Vol. 1): Springer.
- Rustenburg Community Report. (2011). Retrieved from <http://www.bench-marks.org.za/>
- Ryan-Nicholls, K., & Will, C. (2009). Rigour in qualitative research: mechanisms for control: Qualitative researchers have been criticised for a perceived failure to demonstrate methodological rigour. Kimberley D Ryan-Nicholls and Constance I Will offer cautionary recommendations related to the mechanisms for control of methodological rigour in qualitative inquiry. *Nurse researcher*, 16(3), 70-85.
- SACOM. (2017). CHAMBER OF MINES OF SOUTH AFRICA MEMBERSHIP COMPACT. <http://chamberofmines.org.za/component/jdownloads/send/25-downloads/500-chamber-of-mines-of-south-africa-membership-compact> Retrieved from <http://chamberofmines.org.za/component/jdownloads/send/25-downloads/500-chamber-of-mines-of-south-africa-membership-compact>
- Sandrey, R. (2014). Export taxes in the South African context. *Stellenbosch: tralac*.
- SAPA. (2014). North West mining royalties misused - report. Retrieved from <https://www.iol.co.za/news/politics/north-west-mining-royalties-misused-report-1654805>
- SARS. (2012). MINERAL AND PETROLEUM RESOURCES ROYALTY. Retrieved from <http://www.sars.gov.za/AllDocs/OpsDocs/Guides/GEN-GEN-01-G01%20-%20Mineral%20and%20Petroleum%20Resources%20Royalty%20-%20External%20Guide.pdf>
- Sithole, P., & Mbele, T. (2008). Fifteen year review on traditional leadership: a research paper.
- Socio-Economic Assessment Toolbox, SEAT. (2012, June 2012). Retrieved from <https://www.youtube.com/watch?v=tuUUHuuQgfc>
- South African Chamber of Mines. (2017). Retrieved from <http://www.chamberofmines.org.za/>
- Toolbox, S. (2012). Socio-Economic Assessment Toolbox: Version.
- Wall, E., & Pelon, R. (2011). Sharing mining benefits in developing countries. *A World Bank Oil and Gas and Mining Unit Working Paper: Extractive Industries for Development Series*, 21.

The social and economic impact of mining in the Brits area of Madibeng Municipality

CS 2016 person indicators per municipality

North West

Province, District and Local municipality	Municipal sub-category	2015 Grants and subsidies received as a % of Total Income	2011								2016									
			Total population			Youth (15-34 years)			Youth proportion	Persons age d 20 years+ who have completed grade 12	Total population			Youth (15-34 years)			Youth proportion	Sex ratio	Total population intercensal growth rate (2011-2016)	Persons age d 20 years+ who have completed grade 12
			Male	Female	Total	Male	Female	Total			Male	Female	Total	Male	Female	Total				
6 North West			1 779 903	1 730 049	3 509 953	656 525	602 743	1 259 268	35,9	691 936	1 909 589	1 838 846	3 748 436	695 885	653 666	1 349 550	36,0	103,8	0,015	833 347
637 DC37: Bojanala	C1	99,3%	794 529	712 977	1 507 505	315 007	262 253	577 260	38,3	345 149	876 689	780 459	1 657 148	301 026	259 862	560 888	33,8	112,3	0,021	401 356
660 NW371: Moretele	B4	81,3%	91 193	95 755	186 947	33 660	31 990	65 649	35,1	34 880	92 548	97 353	189 900	28 793	28 767	57 560	30,3	95,1	0,004	36 631
661 NW372: Madibeng	B1	38,7%	253 991	223 390	477 381	103 663	83 387	187 049	39,2	108 574	287 984	249 531	537 516	102 394	84 434	186 828	34,8	115,4	0,027	132 033
662 NW373: Rustenburg	B1	29,3%	301 796	247 779	549 575	123 757	99 023	222 780	40,5	144 554	342 865	283 657	626 522	121 810	103 371	225 181	35,9	120,9	0,030	170 041
663 NW374: Kgetlengrivier	B3	58,3%	27 034	24 015	51 049	9 569	8 102	17 670	34,6	8 960	31 906	27 656	59 562	9 309	8 026	17 335	29,1	115,4	0,035	12 039
664 NW375: Moses Kotane	B4	65,3%	120 515	122 038	242 554	44 359	39 751	84 110	34,7	48 182	121 385	122 263	243 649	38 720	35 265	73 985	30,4	99,3	0,001	50 613
638 DC38: Ngaka Modiri Molema	C2	98,7%	413 399	429 300	842 699	143 427	141 936	285 363	33,9	135 226	439 049	450 060	889 108	182 090	178 748	360 838	40,6	97,6	0,012	177 509
665 NW381: Ratlou	B4	65,6%	51 310	56 029	107 339	16 048	16 778	32 826	30,6	7 667	50 247	55 861	106 108	19 094	20 324	39 418	37,1	90,0	-0,003	9 357
666 NW382: Tswaing	B3	61,5%	61 931	62 287	124 218	20 182	19 963	40 145	32,3	14 028	64 829	64 223	129 052	25 518	25 029	50 547	39,2	100,9	0,009	17 770
667 NW383: Mafikeng	B2	32,2%	141 642	149 885	291 527	53 546	53 532	107 078	36,7	63 964	153 094	161 300	314 394	68 853	68 709	137 561	43,8	94,9	0,017	81 430
668 NW384: Ditsobotla	B3	29,9%	85 297	83 605	168 902	29 318	27 562	56 880	33,7	26 179	93 421	88 444	181 865	37 840	34 805	72 645	39,9	105,6	0,017	35 313
669 NW385: Ramotshere Moiloa	B3	62,5%	73 220	77 494	150 713	24 333	24 101	48 434	32,1	23 388	77 458	80 232	157 690	30 786	29 881	60 667	38,5	96,5	0,010	33 639
639 DC39: Dr Ruth Segomotsi Mompati	C2	98,8%	224 718	239 097	463 815	73 729	76 296	150 026	32,3	56 370	221 111	238 247	459 358	84 490	86 416	170 906	37,2	92,8	-0,002	68 924
670 NW392: Naledi	B3	38,5%	33 502	33 279	66 781	11 472	11 233	22 705	34,0	12 277	34 771	34 032	68 803	13 843	13 141	26 983	39,2	102,2	0,007	15 608
671 NW393: Mamusa	B3	46,8%	29 941	30 414	60 355	10 037	10 230	20 267	33,6	7 089	31 620	32 380	64 000	12 019	12 220	24 239	37,9	97,7	0,013	8 741
672 NW394: Greater Taung	B4	84,0%	83 756	93 886	177 642	27 017	29 287	56 304	31,7	19 038	77 855	89 972	167 827	29 761	32 032	61 794	36,8	86,5	-0,013	21 737
673 NW396: Lekwa-Teemane	B3	24,4%	26 600	26 648	53 248	9 436	8 770	18 206	34,2	7 908	27 718	28 307	56 025	11 222	10 497	21 719	38,8	97,9	0,012	10 785
674 NW397: Kagisano/Molopo	B4	85,2%	50 918	54 870	105 789	15 768	16 776	32 543	30,8	10 057	49 147	53 555	102 703	17 645	18 526	36 171	35,2	91,8	-0,007	12 054
640 DC40: Dr Kenneth Kaunda	C1	92,2%	347 258	348 676	695 933	124 362	122 258	246 620	35,4	155 191	372 741	370 081	742 821	128 279	128 639	256 918	34,6	100,7	0,015	185 558
675 NW401: Ventersdorp	B3	48,2%	29 246	27 456	56 702	9 566	9 106	18 672	32,9	6 165	33 690	30 233	63 923	10 336	9 711	20 047	31,4	111,4	0,027	8 374
676 NW402: Tlokwe City Council	B1	17,3%	79 967	82 794	162 762	30 902	30 649	61 552	37,8	47 202	88 976	90 629	179 604	33 434	33 875	67 310	37,5	98,2	0,022	57 827
677 NW403: City of Matlosana	B1	22,8%	199 364	199 311	398 676	70 511	69 174	139 686	35,0	91 318	208 839	208 443	417 282	71 108	71 556	142 665	34,2	100,2	0,010	106 818
678 NW404: Maquassi Hills	B3	35,3%	38 680	39 114	77 794	13 383	13 328	26 711	34,3	10 506	41 236	40 776	82 012	13 400	13 496	26 897	32,8	101,1	0,012	12 539

Table Appendix A1

The social and economic impact of mining in the Brits area of Madibeng Municipality

CS 2016 household indicators per municipality

North West

Province/District/Local municipality	Municipal sub-category	2015 Grants and subsidies received as a % of Total income	Poverty				Population and households				Main dwelling								Main source of water for drinking		Toilet facility						Electricity		
			2011		2016		2011		2016		2011				2016				2016		2011			2016			2016		
			Poverty headcount	Intensity of poverty	Poverty headcount	Intensity of poverty	Total households	Household size	Total households	Household size	Formal	Traditional	Informal	Other	Formal	Traditional	Informal	Other	Piped water	Other sources	Flush/chemical toilet	Other	None	Flush/chemical toilet	Other	None	Connected to electricity	Other sources	None
6 North West			9,2%	42%	8,8%	42,5%	1062 015	3,3	1248 766	3,0	809 682	17 531	224 976	9 826	977 031	23 146	229 544	18 799	1074 968	173 799	491 128	508 852	62 034	607 980	592 656	48 130	1 119 020	9 593	120 153
637 DC37: Bojanala	C1	99,3%	8,2%	42,1%	8,8%	42,9%	501 696	3,0	611 144	2,7	345 263	4 041	148 221	4 172	431 721	5 583	163 532	10 126	512 679	98 465	192 017	287 958	21 721	247 844	346 053	17 246	538 905	4 833	67 405
660 NW371: Moretele	B4	81,3%	7,9%	41,2%	11,7%	40,4%	52 063	3,6	55 270	3,4	43 969	495	7 463	136	48 108	1 574	5 319	256	33 892	21 379	3 434	47 913	716	2 302	52 128	840	54 177	95	998
661 NW372: Madibeng	B1	38,7%	9,5%	42,0%	8,5%	42,1%	160 724	3,0	193 857	2,8	95 133	1163	63 298	1130	122 925	1 262	67 472	2 117	150 823	43 033	53 114	98 288	9 321	64 436	124 790	4 630	171 799	1 097	20 960
662 NW373: Rustenburg	B1	29,3%	7,2%	42,9%	8,0%	44,6%	199 044	2,8	262 576	2,4	136 732	1 270	59 268	1 774	178 941	1 016	76 062	6 491	246 095	16 480	114 393	76 974	7 676	154 026	100 734	7 815	219 668	2 959	39 948
663 NW374: Kgetlengrivier	B3	58,3%	8,2%	41,3%	6,1%	41,2%	14 673	3,5	18 787	3,2	10 570	90	3 698	314	12 689	45	5 865	188	14 765	4 022	9 962	3 181	1 530	14 953	2 166	1 668	17 013	500	1 274
664 NW375: Moses Kotane	B4	65,3%	8,3%	41,3%	10,6%	42,5%	75 193	3,2	80 654	3,0	58 859	1 023	14 493	818	69 059	1 686	8 813	1 074	67 104	13 551	11 113	61 601	2 479	12 126	66 236	2 292	76 247	183	4 224
638 DC38: Ngaka Modiri Molema	C2	98,7%	12,3%	42,1%	10,6%	41,9%	227 001	3,7	269 977	3,3	187 685	8 016	28 618	2 682	223 186	13 576	29 362	3 824	220 751	49 226	72 836	137 087	17 078	95 177	160 823	13 977	244 613	1 602	23 762
665 NW381: Ratlou	B4	65,6%	16,6%	42,4%	16,9%	42,3%	26 889	4,0	29 120	3,6	24 164	953	1 413	358	23 822	2 775	2 469	33	21 817	7 303	1 324	22 189	3 376	670	25 049	3 401	25 673	155	3 293
666 NW382: Tswaing	B3	61,5%	13,4%	41,6%	10,8%	41,7%	30 634	4,1	35 300	3,7	23 752	504	6 231	147	28 551	450	5 508	792	27 711	7 589	11 555	15 762	3 317	14 267	18 200	2 833	31 444	55	3 801
667 NW383: Mafikeng	B2	32,2%	10,6%	42,5%	8,2%	41,4%	84 239	3,5	103 333	3,0	73 557	1 477	8 760	444	89 740	3 624	8 663	1 298	85 340	17 994	27 642	52 618	3 979	32 913	67 169	3 251	96 332	401	6 600
668 NW384: Ditsobotla	B3	29,9%	11,6%	41,8%	9,3%	42,3%	44 500	3,8	54 154	3,4	33 025	3 548	7 404	523	43 577	4 266	5 460	851	43 162	10 992	21 303	19 118	4 079	30 822	20 948	2 384	48 202	192	5 759
669 NW385: Ramotshere Moiloa	B3	62,5%	13,2%	42,0%	13,0%	42,0%	40 740	3,7	48 070	3,3	33 188	1 533	4 810	1 209	37 496	2 461	7 262	851	42 722	5 348	11 012	27 400	2 329	16 505	29 456	2 108	42 962	800	4 309
639 DC39: Dr Ruth Segomotsi Mompati	C2	98,8%	13,7%	41,9%	12,8%	42,2%	125 270	3,7	127 103	3,6	107 388	4 180	12 729	972	114 270	2 274	9 360	1 162	110 224	16 879	45 499	65 641	14 129	50 414	69 231	7 458	112 317	1 657	13 129
670 NW392: Naledi	B3	38,5%	10,7%	41,9%	10,5%	43,0%	18 572	3,6	20 692	3,3	15 080	242	2 992	257	17 560	130	2 969	33	19 167	1 525	12 878	3 370	2 324	15 561	4 013	1 119	16 662	174	3 856
671 NW393: Mamusa	B3	46,8%	10,1%	42,0%	8,8%	44,2%	14 625	4,1	15 473	4,1	12 071	207	2 180	166	12 918	57	2 355	133	9 064	6 408	9 394	3 530	1 700	11 674	3 358	441	12 973	457	2 043
672 NW394: Greater Taung	B4	84,0%	16,6%	42,2%	17,3%	41,6%	48 613	3,7	46 168	3,6	43 008	2 776	2 658	171	41 701	1 730	2 137	590	43 631	2 537	5 168	38 384	5 061	4 464	38 617	3 086	43 365	66	2 738
673 NW396: Lekwa-Teemane	B3	24,4%	5,1%	42,0%	3,6%	40,5%	14 930	3,6	16 496	3,4	11 823	49	2 954	104	15 387	63	969	76	16 030	465	13 547	671	712	15 337	624	534	14 964	900	632
674 NW397: Kagisano/Molopo	B4	85,2%	17,0%	41,3%	14,8%	42,5%	28 531	3,7	28 274	3,6	25 406	906	1 945	275	26 704	295	929	331	22 331	5 944	4 512	19 687	4 332	3 377	22 619	2 279	24 353	61	3 861
640 DC40: Dr Kenneth Kaunda	C1	92,2%	5,2%	41,4%	4,9%	42,5%	208 047	3,3	240 543	3,1	169 346	1 294	35 408	1 999	207 853	1 712	27 290	3 687	231 314	9 229	180 776	18 166	9 105	214 545	16 549	9 448	223 186	1 500	15 857
675 NW401: Ventersdorp	B3	48,2%	11,4%	40,6%	12,4%	43,2%	14 562	3,9	17 165	3,7	10 056	221	4 175	111	13 226	21	3 419	500	15 277	1 888	6 589	7 259	714	8 860	6 345	1 960	14 523	258	2 384
676 NW402: Tlokwe City Council	B1	17,3%	3,9%	42,7%	4,8%	41,1%	52 537	3,1	63 407	2,8	42 630	171	9 359	377	52 869	247	9 884	408	59 018	4 389	44 301	4 568	3 668	54 904	5 362	3 141	57 266	756	5 385
677 NW403: City of Matlosana	B1	22,8%	4,6%	41,4%	3,7%	42,9%	120 442	3,3	135 894	3,1	99 867	737	18 692	1 146	121 178	1 376	11 974	1 366	133 905	1 989	113 542	4 787	2 113	129 625	3 350	2 920	129 141	459	6 294
678 NW404: Marquass Hills	B3	35,3%	8,1%	40,8%	6,4%	42,5%	20 505	3,8	24 076	3,4	16 793	166	3 182	365	20 581	68	2 014	1 414	23 113	963	16 343	1 553	2 609	21 156	1 493	1 428	22 255	27	1 794

Table Appendix A2

Survey Questions to Madibeng Municipality

1. How many mining companies in the area of Madibeng municipality, what are they mining?

Answer: The official and recognised mining companies in Madibeng are ten (10) and they mining cement, granite chrome and platinum after chrome

2. Which are the villages where the mining operations are done?

Answer: Bapong, Majakaneng, Segwaelane, Sonop, Moderspruit, Vaalboschloot, Mmakau, Rankotea, Uirvalgrond and Bethani.

3. Do you know when were the operating mining licenses issued to the mines and for how long?

Answer: most of the mining companies started to operate long before 1994 which was before the Democracy or we can say new South Africa; as it is we not very sure of their exact issued but since the mining charter, licences are issued every five years after submission of Social and Labour Plan (SLP) projects commitment.

4. Can you please provide me with a detailed map of Madibeng with all the mines and villages shown?

Answer: We do have Madibeng Map but not detailed as requesting and doesn't even indicating mines on the map.

5. What value do the mines add to the local communities?

Answer:

- The mines supposed to be contributing the SLP's which are projects identified from the Integrated Development Plan (IDP).
- IDP is a guiding document for communities priorities need within their areas / villages, also to highlight further the IDP is informed by Provincial Development Plan (PDP)
- We always having figures of breakdown of projects but in most instances projects are not complete or have not started as it is figures never materialised, mostly it will be R10m-R15m per project even far more that the indicated figures but it is 1% out of 100% completion of projects.
- Basically there is no impact that the mines are doing for the communities.

The social and economic impact of mining in the Brits area of Madibeng Municipality

6. Are there any current projects/CSI running in collaboration with municipality and mines?

Answer: yes there are projects e.g. water & sanitation project.

7. Do you keep information of the population of the people under the Madibeng? (number of unemployed people/youth). Please share the information.

Answer: You can get this kind of information from Department of Labour Provincially

8. Do the mining companies contribute to education projects to the local community?

Answer: not as it should; it is always a struggle to pull out something from a mine.

9. Does the municipality issue any kind of licenses to the mines before/during operation?

Answer: No the Municipality does not issue any licenses but approves the projects before they are submitted to the Department of Mineral and Resources where they getting their mining licence.

10. What is the economic life of the mines currently running?

Answer: as you can see the unsettle status of our country: South Africa; so is the unstable of economy in the mining companies, the main investors within the mines mostly relocates or move to a better environment or country, that makes matters worse because it causes more unemployment in our communities.

11. How is the monitoring done over the operations of the mine by the municipality?

Answer: the monitoring is mostly done by both the Municipality and the DMR, but the municipality focus is on the SLP monitoring and operation is done by DMR.

12. Does the mine pay any royalties to the municipality and/or local community?

Answer: the royalties are between communities, royalty houses and the mining houses. The Municipality is not getting involved in the royalty discussions.

13. Are there any housing constraints in the area of mining?

Answer: yes there housing constraints

14. Are there any basic services constraints in the area of mining? Water, Electricity

Answer: yes there is a lot of constraints about basic services specifically Water and Electricity, though electricity is a serious issue from Eskom itself.

The social and economic impact of mining in the Brits area of Madibeng Municipality

15. Is there a plan in place in the near future or even long term to address basic needs of the community by the municipality or mining companies?

Answer: it is a serious matter that is dealt with the National Government, it is still a process matter.

15. What are common ailments in the area of mining? Environmentally related.

Answer: pollution

17. How often do the mining companies together with the officials of the municipality meet with the local mining community?

Answer: there is a Mining forum where the Municipality is meeting with Mining houses by monthly

The social and economic impact of mining in the Brits area of Madibeng Municipality

Questions /survey to Mining Companies

1. How long have you been operating in the place?
2. When was the operating license 1st issued? How long is the remaining duration of the operating license?
3. Who are the shareholders in the mining company? Breakdown in%
4. Are you a member of Chamber of Mines? If not, why?
5. Who do pay mining royalties to?
6. How many people are employed by the mine? Skilled labour, Unskilled labour, Permanent employees, Fixed Term Contractors?
7. Who audits your books? Externally
8. What CSI/CSR projects have you embarked on with the local community?
9. How much is set aside for community based projects annually?
10. How do you cooperate with the local municipality (Madibeng) in terms of local community based projects?
11. Do you help fund local municipality's other projects?
12. What is your employment policy regarding local community?
13. How do you provide up-skilling of your employees?
14. What is your policy on housing for your employees?
15. What is your growth plan in the next 3 years?
16. What is the remaining economic life of the plant? estimate
17. Is the mining company assisting the local community with different community projects including renovating schools, help build community centres, etc?
18. Can you please share annual financial statements
19. How do you empower the local community?
20. Do you provide training opportunities for the youth in the local mining community?
21. Do you have suppliers' data-base for procurement of services? Are there any local community suppliers? (Local, regional and international). Are the local community service providers getting preferential appointment to supply services to the mine?