

**EVALUATION OF STRATEGIES TO COMBAT POVERTY AMONG COMMUNITIES
POST MINE CLOSURE: A CASE OF THE BA-PHALABORWA LOCAL
MUNICIPALITY, MOPANI , IN LIMPOPO PROVINCE**

By

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DEDICATION

I dedicate this study to the following people who, at various times, had made significant contributions to my life:

- My parents, Mosila (the late) and Mzilela, for being a pillar of my strength and support throughout the period of my study;
- My siblings, Saki (the late), Motataane, Tshike and Khomotso (the late) for their motivational support;
- My daughter, Bokang, and my nieces, Thabang and Rorisang; and
- Above all, to God, Who gave me life and made all things possible.

DECLARATION

I declare that the mini-dissertation hereby submitted to the University of Limpopo for the degree of Masters of Development Studies has not previously been submitted by me for a degree at this university or any other university, that it is my own work in design and execution and that all material contained therein has been duly acknowledged.

Signed: _____

Date: _____

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LIST OF ABBREVIATIONS/ACRONYMS

BCEA	Basic Conditions of Employment
CSR	Corporate Social Responsibility
CWP	Community Worker Programme
EAP	Employee Assistance Programme
EEA	Employment Equity Act
EFA	Environmental Financial Assistance
EPWP	Expanded Public Works Programme
IDC	Industrial Development Corporation
IDP	Integrated Development Plan
KNP	Kruger National Park
LED	Local Economic Development
LRA	Labour Relations Act
MHSA	Mine Health and Safety Act
MMDB	Minerals and Mining Development Board
MPRDA	Mineral and Petroleum Resource Development Act
NDPG	Neighbourhood Development Partnership Grant
NEMA	National Environment Management Act
NGO	Non-Governmental Organisations
PMC	Palabora Mining Company
SDA	Skills and Development
SEAT	Socio Economic Assessment Toolkit
SLA	Sustainable Livelihoods Approach
SLP	Social and Labour Plan
SMMEs	Small Medium and Micro Enterprises

ABSTRACT

The purpose of this study is to evaluate the effectiveness of the poverty alleviation strategies post mine closure in the Ba-Phalaborwa Municipality.

The study also focuses on the legislative framework of mine closure in South Africa, to guide the mining operations, downsizing and retrenchment processes. The study is qualitative in design, and semi-structured interviews were used for the mining officials, municipal officials as well as the retrenched employees. The literature review looks at how other countries of the world are effectively making use of the available resources in combating poverty in their respective countries, including African countries.

It is evident that natural resources are the most important international commodity and thus play a major role in the socio-economic development. The study critically analysed how effective are the strategies to alleviate poverty currently implemented in the research community. This analysis includes the impact faced by mining communities post mine closure, owing to the depletion of Copper and phosphates ores which are the most mined natural resources in the area.

The findings of this study reveal that mining companies are profit-making entities, and their survival depends on both their production and favourable market forces. Some of the key findings are that poverty alleviation projects are there but the administration of those projects is poor, and thus do not address their primary goal; and the partnership between the municipality and mining companies is not mutual. Recommendations made in this study are that there should be proper approach towards the implementation of those strategies; reinforce future plans of mining companies during downscaling and a complete closure; and also ensure that a municipality provides support to viable Small Medium and Micro Enterprises (SMMEs) that are linked to tourism sector to unlock socio-economic activities within the community.

KEY CONCEPTS: Evaluation, Post-mine closure, Effective strategies, Retrenchment and challenges in mining communities

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CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

The focus of this study was on the evaluation of the strategies for combating poverty among communities post mine closure in Ba-Phalaborwa Local Municipality. The study was conducted in the Ba-Phalaborwa community. The participants were retrenched employees, officials from the Non-Government Organisation (NGO), as well as officials from the municipality and mining companies.

The study is of great significance because it will help to inform policy with respect to highlighting community needs that may affect decision-makers' understanding of the localised requirements that need to be incorporated in the case of mine closure. The study evaluated the effectiveness of the poverty alleviation strategies in the community of the Ba-Phalaborwa; the compliance of the mining companies with legislations that govern mining companies; and the implementation of the corporate social responsibility plans. It disclosed several issues which, amongst other things, is the revelation that there is minimal community involvement in poverty alleviation projects offered by mining companies; and lack of cohesive partnership between the municipality and mining companies within the Ba-Phalaborwa Municipality.

1.2. Background of the Study

Since the political transition in 1994, South Africa has witnessed the acceleration of unemployment rate because of massive retrenchments in mines and other industries (Statistics South Africa, 2011:10). Poverty and high unemployment rate are the major concern among the people of South Africa as well as the government. Various government poverty-eradication programmes were established such as Child Support

Grants, Old Age Pension, Disability Grant, food parcels, free/subsidised basic household services such as water and sanitation electricity, transport, refuse removal, subsidised education and training, healthcare, Reconstruction and Development Programme(RDP) housing, land restitution, land tenure reform, Small, Medium and Micro Enterprises (SMMEs) and public works programmes such as Expanded Public Works Programme (EPWP) (Department of Social Development, 2009:12). The democratic government in South Africa has also introduced various policies to combat poverty and reduce unemployment, such as, “The Labour Relations Act (LRA) of 1995; The Basic Conditions of Employment Act (BCEA) of 1997; The Employment Equity Act (EEA) of 1998 and The Skills Development Act (SDA) of 1998”, but the policies seem not to have achieved the desired impact (Van Klaveren,Tijdens, Hughie-Williams & Martin, 2009:21).

The municipality has a geographical area of 3 004.88km², which constitutes 27% of the Mopani District (Ba-Phalaborwa Municipality, 2009:15). The municipality serves as a convenient gateway to the Kruger National Park and the Transfrontier Park through the Mozambique Channel Kruger National Park (Ba-Phalaborwa 2012/13 IDP: 9).

The Ba-Phalaborwa Municipality’s main challenge is to stimulate the local economy and attract sustainable investment into the area. With a sprawling population of some 200 000 within a 50km radius of Phalaborwa, the mines together with several smaller interdependent organizations, produce approximately 80% of the area’s Gross Domestic Product (GDP). The Palabora Mining Company is the area’s largest employer. The closure of the Palabora Mine would have a disastrous effect on the economy, because of a major reduction in employee spending power, leading to the closure of mining supply and contractor businesses, transport companies, estate agencies, legal firms, retail outlets and shopping centres, to name a few. About 47% of the population in the area is unemployed and ravaged by poverty due to the closure and the downsizing of the mines because of the depletion of resources (Greater Phalaborwa Trade and Tourism Council, 2005:03).

According to the 2010/10 Guideline on Social Labour Plan for Mineral Resources, the Mineral and Petroleum Resources Development Act, 2002 (MPRDA) is, amongst others, to transform the mining and production industries in South Africa. In order to ensure effective transformation in this regard, the act requires a submission of the social and labour plan as a pre-requisite for the granting of mining or production rights. The social and labour plan requires applicants for mining and production rights to develop and implement a comprehensive human resources development programmes, mine community development plan, housing and living conditions plan, employment equity plan, and process to save jobs and manage downscaling and/closure. It is therefore imperative for the mining companies in the Ba-Phalaborwa communities to adhere to the social plans in order to promote community development, by stimulating social changes related to employment, health and so forth.

As part of the social labour plans FOSKOR mining company committed itself in the upgrading and refurbishment of electricity network, rehabilitation of streets within the Ba-Phalaborwa community to mention a few, while Phalabora Mining Company through the Ba-Palabora Foundation contributed a massive amount of R70 000.00 to support Phelang Clinic for the good health of the community members, educational bursaries of about R600 000 for learners who perform well in the master maths and other programmes offered in the Palabora Foundation Educational Centre. The foundation does offer support to projects such as Waterbok farm (fresh vegetable farming) and Hluvukani manufacturing in roofing tiles and so forth (Ba-Phalaborwa Municipality IDP 2012/2013).

The study therefore sought to evaluate the strategies for combating poverty among communities post mine closure, and outline the contribution of the implementation of the effective poverty alleviation strategies within such communities.

1.3 Statement of the Problem

This study was triggered by the chronic poverty facing the communities in the Ba-Phalaborwa Municipality (Ba-Phalaborwa Municipality, 2009:15). Mining is the main source of direct and indirect employment in this area. There are four mines in the area, namely, Palabora Mining Company, Foskor Mine, Sasol Nitro and Consolidated Murchison. The major problem facing the communities is that the mining resources are depleted and therefore, the mines are facing closure. Sasol Nitro was closed in 2009 and all the mineworkers were retrenched (Ba-Phalaborwa Municipality, 2009:17).

According to Ba-Phalaborwa Municipal IDP (2015:39), “Consolidated Murchison mine has been liquidated in the 2nd quarter of 2014/15 financial year, and with close to 875 people being left without employment.” This resulted in many people losing their income. The majority of these workers were unskilled and will be unable to be employed in other fields. The closure of the mines will also result in an indirect increase in the unemployed people, since those enterprises that did business with the mines will also be bound to curtail their labour force. The Ba-Phalaborwa Municipality’s main challenge is to stimulate the local economy and attract sustainable investment into the area (Ba-Phalaborwa Municipality, 2011/2016:08).

1.4 Aim of the Study

Based on the Socio-economic problems featured above, the study was aimed at evaluating the effectiveness of the poverty alleviation strategies post mine closure in the Ba-Phalaborwa Municipality of the Limpopo Province.

1.5 Objectives

This study was conducted guided by the following research objectives:

- To identify challenges faced by Ba- Phalaborwa communities after closure of the mines;
- To analyse the impact of retrenchment on the affected community members;
- To assess the effectiveness of poverty alleviation strategies in the Ba-Phalaborwa; and
- To suggest strategies that can be used for poverty alleviation post mine closure.

1.6 Research Questions

The following are the research questions of the study:

- What are the challenges faced by Ba-Phalaborwa communities after mine closure?
- To what extent does the retrenchment of mining employees affect communities?
- To what extent are the poverty alleviation strategies benefiting the community?
- Which poverty alleviation strategies can be pursued for a poverty-stricken community?

1.7 Definition of the Key Concepts

The following key concepts have to be clarified to gain a better understanding of this study:

1.7.1 Poverty

Various definitions of poverty have been recorded in literature and up to now there is no universal definition of poverty. However, the Department of Social Development (2009:09) defines poverty as inability of individuals, households or communities to command sufficient resources to satisfy a socially acceptable minimum standard of

living. And it includes lack of opportunity, lack of access to assets as well as social exclusion, while McGraw Hill (1993) defines poverty as a condition in which income is insufficient to meet substantial needs. Kambur and Squire (1999:01) and Hall (1999:08) on the other hand define poverty as a condition in which a significant numbers of people are living in intolerable circumstances where starvation is a constant threat, sickness is a familiar companion and oppression is a fact of life.

1.7.2 Sustainable Development

Sustainable development in the mining sector has been defined in many ways, but the most frequently quoted definition is that it is “[u]sing the economic engine by mining to build an economy that survives and is better off after the end of the mining” (Joyce & Smith, 2003). Sustainable development is also defined in a wider perspective by Treurnicht (1997:31) as social and economic progress, which ensures human development and during which the basic needs of the present are satisfied, while the International Institute for Sustainable Development (2012:12) defines it as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This implies that any economic policy aimed at improving the lots of the people must take into consideration environmental and social security of future generations.

1.7.3 Corporate Social Responsibility (CSR)

There are numerous descriptions and interpretations of Corporate Social Responsibility. For example, the Hamann and Kapelus (2004:145) define Corporate Social Responsibility as “essentially a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment”. While Wood (1991) defines it in terms of its goal of embracing responsibility for the company’s actions and encouraging a positive impact through its activities on the environment, consumers, employees, communities, stakeholders and members of the public.

1.8 Significance and Rational of the study

The study seeks to identify and evaluate various strategies for combating poverty, in communities affected by mine closures. Owing to the high level of dependency on the mine, there may be a lack of both entrepreneurial tradition and experience in a mining town, and due to the support provided by a mine and the relative prosperity of mining towns, local governing bodies might be less pro-active in community development than where mines are not present. Neil and Tykkylainen (1992:21) identified three Local Economic Development (LED) mitigation strategies pursued by the municipality and the community of Dundee in Kwazulu Natal (KZN), which corresponds to broad international experience. The first is that local government tries to draw in new large-scale investment by international firms. Secondly, local interest groups and the municipality pursue LED strategies in an attempt to address the unemployment and poverty levels of a region. However, evaluations have been few and have lacked scientific rigidity.

Creating the alternative economic spin offs for the area is of great concern to the municipality. On the contrary, literature used in this study shows that more evaluations on poverty alleviation strategies have been done both in Africa and elsewhere in the world. This study adds to the existing body of knowledge about the topic being investigated. The study's findings will assist the municipality, as well as the mining companies to apply an improved social cohesion in implementing the effective strategies to combat poverty within their communities after mining closure, which will in turn translate into substantial benefits to the communities of the Ba-Phalaborwa in terms of employment and all other socio economic impacts.

1.9 Research Methodology

Research methodology outlines the techniques, methods, tools, and procedures used in conducting the research design (Mouton, 2002: 36). The study adopted a qualitative approach because this approach enables the researcher to determine the experiences of the respondents about the strategies that could be implemented to combat poverty

among communities post-mine closure. Neuman (2006) affirms that qualitative research attempts to discover and capture the meaning of an individual's experiences.

The researcher conducted a case study since case studies have long been associated with social research, particularly as they concern specific phenomena or localities.

The population of this study includes the officials in the Ba-Phalaborwa municipality, namely the municipal manager, LED manager, councillors, the retrenched employees, officials from the Palabora Foundation (Non-governmental organisation in the area) and officials from the four mining companies that is, Palabora mining company, FOSKOR mine, Sasol Nitro and Consolidated Murchinson.

The above view is supported by Babbie and Mouton (2003:100) who assert that population of the study can be defined as those group of people, items, objects, or elements who meets the designated set of criteria for the study and about whom one wants to draw a conclusion or conclusions.

In this study a purposive sampling was used by the researcher, and a total of 40 samples consisting of the members of the local municipality, local mines, retrenched employees from the local mines and the Non-government organisation in the area. A semi-structured interview was used as a primary data collection method in this study. Semi-structured interview is preferred because it will allow the researcher and the person interviewed the flexibility to probe for details or discuss issues, it is also less intrusive to the respondents as it encourages two-way communication (McMillan & Schumacher, 2010: 331).

In every study the data collected has to be analysed before they can be interpreted. Data analysis refers to a non- numerical process of examining and interpreting data in order to elicit the meaning, gain understanding and develop empirical knowledge (Babbie, 2007:378; Corbin & Strauss, 2008: 01). In this study data were analysed using the three grounded theory steps, namely open coding, axial coding and the selective coding of data.

1.10. Chapter Outline

- Chapter One focuses on the outline of the background to the problem, the problem statement, research questions, the significance of the investigation, aims and objectives, delimitation, theoretical framework, description of the methods of investigation and definition of concepts.
- Chapter Two offers a review of the literature and the theoretical background of the investigation. Primary and secondary sources in relation to the topic are used. The literature review concentrates on a wide review of relevant writings such as the latest articles, journals, and major books on the subject, monographs and dissertations published nationally and internationally.
- Chapter Three focuses on research design. Here the methods of investigation including specific procedures, research population and sampling, instrumentation, data collection and treatment are outlined and described.
- Chapter Four concentrates on data analysis and interpretation of data. In this chapter, the responses of the respondents are presented and elucidated by means of charts and tables, which is accompanied, by a detailed analysis and interpretation.
- Chapter Five serves as a synthesis and will comprise summary of each chapter, summary of findings as well as the conclusions or results. Finally, the recommendations for the future are provided.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In Chapter One, the general background to the study, research problem, purpose of the study, research questions and the rationale of the study were provided. In this chapter, various literature sources are reviewed in order to provide an overview of other strategies that have been implemented to combat poverty among communities affected by mine closure.

2.2 The Theoretical Framework

This research is underpinned by the “Sustainable Livelihoods Approach to Poverty Alleviation”. The concept Sustainable Livelihoods relates to a wide set of issues that encompass much of the broader debate about the relationship between poverty and the environment (Scoones, 1998:46). Sustainable Livelihoods Approach (SLA) has been an attempt to go beyond the conventional definitions and approaches to poverty alleviation (Krantz, 2001:22). The livelihood thinking dates back to the work of Robert Chambers in the mid-1980s. Chambers developed the idea of “Sustainable Livelihoods” with the intention to enhance the efficiency of development cooperation (Kollmaret *al.*, 2002:17). His concept constitute the basics for the sustainable livelihoods approach and were further developed by the United Kingdom’s Department for International Development (DfID). Since 1997, the Department for International Development (DfID) integrated the approach in its programme for development cooperation (Kollmaret *al.*, 2002:17).

All mines that operated in the past and at present are mainly interested in production, rather than in their impact on workers, the community and the environment. Therefore intergovernmental relations must be seen to be in operation and strengthened to facilitate the proper management and administration of mines as they are the economic pillars of the South African economy. As such continuous research is necessary to

determine effective strategies for combating poverty among communities post mine closure, on the livelihoods of the beneficiaries with set indicators such as improved standards of living, increased income, improved skills acquisition and the ability to afford basic family demands used to determine the effectiveness of initiatives undertaken by various government or private entities (Nel, 2001: 33).

The 1992 UN Conference on Environment and Development expanded the notion of Sustainable Livelihoods, advocating for the attainment of Sustainable livelihoods as a broader mechanism for alleviating poverty (Balgis *et al.*, 2005:63). The term 'Sustainable Livelihoods' came to prominence as a development concept in the early 1990s, drawing advances in understanding of famine and food insecurity during the 1980s (Haida, 2009:28). "Livelihoods" means activities, entitlements and assets, after Amarty Sen by which people make a living. In other words a "livelihood" is a source of revenue or income or a source of living. It also constitutes assets, activities and capabilities (Krantz, 2001:27). Assets, therefore, are defined as not merely natural or biological (land, water, common property resources, flora, fauna), but also social (networks, participation, empowerment) and human (knowledge, creation by skills and physical roads, markets, clinics and schools) (Krantz, 2001:27).

2.3 Mining in the Ba-Phalaborwa Area

Mining encompasses the extraction of non-renewable metals and minerals from the ground (Weber-Fahr & Andrews, 2002:16; Downing, 2002:46; and Cernea, 2000:12). Mining operations include open-pit (surface mining) and underground mining, and large-scale operations, as well as activities of small-scale and artisanal miners. Currently, there are three major commercial mines operating in the area which are Palabora Mining Company, Foskor Mine and Sasol Nitro.

The Ba-Phalaborwa Municipality is renowned for its mining activities and has a rich history dating back to the Ba-Phalaborwa tribe that migrated southwards from Zimbabwe (Ba-Phalaborwa Municipality, 2008:15). Some 1000 years ago, the Ba-

Malatji metal working tribe, after discovering iron and copper in an area, they referred to it as “Loole”, which means ‘steep hills’, moved to this area and named it “Phalaborwa”, which means “better than the south” (Greater Phalaborwa Trade and Tourism Council, 2005:03). Carbon tests indicate that their mining activities date back to 770 which make it the first and oldest diggings in South Africa (Ba-Phalaborwa Municipality, 2008:15). There are four large mining industries in the Ba-Phalaborwa Municipality, namely, Palabora Mining Company, Foskor, Consolidated Murchison and Sasol Nitro.

Palabora Mining Company Limited (PMC) used to operate an integrated open pit mine, concentrator, smelter and refinery complex located at Phalaborwa in the Limpopo Province of South Africa, approximately 560km north east of Johannesburg and adjacent to the Kruger National Park (KNP) (Greater Phalaborwa Trade and Tourism Council, 2005:01). Construction of the mine began in 1963 and the processing of ore began in 1966. The Palabora Mining Company (PMC) forms part of the world-wide Rio Tinto Group and the major minerals mined are copper, phosphate, magnetite and vermiculite. The open pit was closed in April 2002 and only the underground mine is currently operating. The downsizing of the operations has necessitated the reduction of the labour complement to about 1 800 employees and 1600 contractors (Palabora Mining Company, 2003:15).

Foskor Mine, a wholly owned subsidiary of the Industrial Development Corporation (IDC), was established in 1951 and it is a producer of several minerals, namely, phosphate, copper, zirconium, iron and vermiculite (Greater Phalaborwa Trade and Tourism Council, 2005:01). Mining on this site was started by an eminent geologist, Dr. Merensky in 1940. The Phosphate Rock and Copper divisions, as well as the Zirconia Business Unit, are situated in Phalaborwa in the Limpopo Province, and together with the Phosphoric acid and fertilizer division situated in Richard’s Bay in Kwazulu-Natal comprise the two operating entities within the Foskor Group. Phalaborwa Complex, within which Foskor Phalaborwa Mine is situated, is geologically intrusion caused by sub-volcanic activity approximately 2,000 million years. The Complex is unique as it is host to many valuable minerals, the most relevant of which

are phosphate, copper, Zirconium, iron and vermiculite. The presence of apatite was first described in 1906 and an unsuccessful attempt at mining phosphate ensued. In 1940, however, an eminent geologist, Dr Hans Merensky, started mining vermiculite in Phalaborwa and proved the phosphate reserves to be truly vast in extent although low by world's standards.

Sasol Nitro, originally known as Bosveld Kunsmis and Fedmis due to the various takeovers, was commissioned in 1964 by the Federale Volksbelegings. Prior to 1964, a concerted effort was underway to make South Africa independent of imported phosphates, and with the vast quantity and quality of phosphate rock available within the Phalaborwa area, Sasol Nitro (then Bosveld) was established (alongside Foskor) to begin processing phosphate rock into a product called phosphoric acid. In 1972, a cement plant was commissioned to produce cement, the basic raw material being gypsum: a waste product from the manufacturing of phosphoric acid. However, due to economic and other related factors, cement production ceased in 1987. It was taken over by Sasol Limited in 1988. It produces phosphoric acid, fertilizers, cement, gypsum and sulphuric acid. Sasol is the only mine that was closed in 2005 and all the employees were retrenched (Ba-Phalaborwa Municipality, 2005:03).

Consolidated Murchison Mine, which produces antimony and gold, is the only mine in the western part of Ba-Phalaborwa Municipality. The mine used to employ 1,300 people, most of whom live either in a housing estate on the mine premises or in Gravelotte village. It has been in operation for more than seventy years (Greater Phalaborwa Trade and Tourism Council, 2005:03). The mine has ceased its operations since 2009.

2.4 Mine Closure

2.4.1 Background to Mine Closure

Mine closure is the period of time when the ore-extracting activities of a mine have ceased and final decommissioning and mine reclamation are being completed (Robertson & Shaw, 2010:03). Consequently, all mine operations will be required to

close at some point, due to resource exhaustion or change in the economics of mining. It is generally associated with reduced employment levels, which can have a significant negative impact on local economies. It is also the period when the majority of mine reclamation is completed, making the land safe and useful again (Robertson *et al.*, 2010:03).

According to Robertson *et al.*(2010:03), in planning for closure, there are four key objectives that must be considered, namely:

- “To the extent achievable, provide for sustainability of social and economic benefits resulting from mine development and operations;
- Protect public health and safety;
- Alleviate or eliminate environmental damage; and
- Achieve a productive use of the land, or a return to its original condition or an acceptable alternative”.

Clark (2008:65) attest that, from the perspective of governments, mine closure presents a complex mixture of environmental, social, economic and development issues that the government must have ensured that (a) industry has adequately recognized and prepared for over the life of the mining enterprise and (b) that the closure plan is carried out to the satisfaction of the communities involved, other major stakeholders and government at all levels. Governments are now coming to realize that they have the most direct responsibility for defining and ensuring comprehensive mine closure within the broader context of the issues of “social/economic equality” and “sustainable development”. This recognition of a broader context of mine closure has greatly expanded the scope of government responsibilities and needed actions (Clark, 2008:67).

2.4.2 The Post-Mine Closure Experiences in Other Countries

In this section, mine closure in several countries are briefly described and evaluated. The social impact of the economic decision to close a mine is typically associated with a worsening of living standards for many; a qualitative change in the nature of

employment, with the emergence of informal, insecure forms of employment at lower wages with fewer legal and social safeguards; and the emergence of groups that are particularly vulnerable in these highly competitive job markets (Haney & Shkaratan, 2003:35). “The problem of employment is one of the most serious and long-lasting consequences of mine closure, even five or more years after the downsizing of the local mining workforce” (Haney et al., 2003:35).

The following countries are briefly explored: in terms of their experiences with mine closure.

Russia

Russia is one of the largest producers of coal in the world even after the closure of 183 heavily loss-making mines over a few years” ((Phillip, 1995:38). The downsizing of the workforce has also been significant: the overall industry workforce (including workers involved in extraction, on the surface, in administration and social assets, etc.) has declined from about 900,000 in 1992 to 328,000 by the end of 2001 ((Phillip, 1995:42). Due to the above mentioned problem it is clear that most of the employees who were working in the above sector were left in the ledge, hence Russia developed strategies for themselves after the downsizing. To support this statement, Olalde (2015:1) attest that Russia has progressed farthest in implementing coal sector restructuring, which in addition to the program of closure of loss-making mines and related social protection and mitigation programs has included notably the privatization of the sector. Aspects of the social mitigation response in Russia are of note. Concerning statutory payments made to affected individuals, as in other countries, the social protection policy in Russia at the beginning of sector restructuring was limited to miners laid off from closing mines. Over time, this policy was expanded to include workers laid-off from continuing mines and, eventually, workers of auxiliary enterprises that were demonstrably directly impacted by mine closure. Russia has also borrowed money from international lenders for coal sector restructuring than Romania, Ukraine and Poland combined (Phillip,1995:42)

Romania

Malatji (2012:5) argued that, in contrast, Romania has also had the same problem but the government came with different strategies to alleviate the challenges. In Romania, the year 1997 marks the beginning of the government's effort to restructure the coal industry through a voluntary program rather than the involuntary method of mine closure. A generous separation package consisting of up to 20 months of wages as severance was offered to workers in the coal and other extractive industries constituting Romania's mining sector. The resulting rush to accept the package, which was two to three times the size of what other industrial workers were being offered, far exceeded the expectations of the government and the trade unions. By December 1998, about 83,000 miners (out of a total of about 173,000 workers total for coal and other mining industries) left the industry, including about 70,000 who had accepted the voluntary redundancy package (the others retired).

The government also expected that a large portion of those accepting the separation package would return to their native regions. This expectation, too, proved to be inaccurate. The separation of so many workers from the industry and the low level of successful out-migration precipitated a sharp decline in general economic activity in the mining regions as the redundancies triggered further unemployment in local service industries, which was not adequately compensated for by labour redeployment efforts. By January 1999, after the severance payments of the first large group of workers to accept the separation package were largely consumed and it became clear that employment options in the coal regions were extremely limited, the uptake of the separation package declined dramatically and mining unions went on strike in protest against continued high unemployment and the poor results of efforts to create jobs in the mining regions. Social unrest emanated from the Jiu Valley (which has suffered from a particular dependence on the coal industry but also enjoyed the highest visibility and political weight of Romania's mining regions), and trade unions led a march on Bucharest. The Government managed to contain the unrest through a negotiated

settlement with the striking miners and the restructuring program has gone forward although employment opportunities in the mining regions remained limited.

The World Bank's support to the government's restructuring program began later in 1999, with the provision of a loan targeted for the physical closure of 29 loss-making mines (20 of which are lignite and brown coal mines) and related social mitigation measures. In addition to the mine closure program that is being financed by the World Bank, the government is financing the closure of mines with its own budgetary resources; about 60 mines have been closed under this program. The elements of the social mitigation strategy supported under the World Bank loan that are directed at longer term aspects of alternative economic development include the establishment of microcredit funds; employment and training incentive schemes (employers are given an incentive to hire unemployed mining sector workers); and workspace centres to promote enterprise development and support start-up enterprises through business incubators at former mine buildings. However, the government has been slow to implement most aspects of this strategy for fostering local development and absorbing the labour shed in the process of mining industry downsizing (Nyathi , 2013:36).

Ukraine

In the case of Ukraine, the government adopted a re-structuring policy consisting of a program of closure of about twenty uneconomic mines per year, improvement of the operation of the mines with the best long-term prospects, and provision of production subsidies to mines which have no future but which the government had decided against closing immediately for social and political reasons. In the same year, the World Bank extended two loans to the government in support of coal sector restructuring” (Malatji, 2012:3).

According to Nyathi (2013:50), the government adopted a program called the Ukraine Coal 2001-2010 that, in essence, reversed its earlier commitment to carrying out an equitable reform of the coal industry, and reverts to the earlier policy of supporting increased production through high levels of subsidization of the industry. The problem of

mine closures is not only experienced by European countries alone but also African countries, such as South Africa, are not excluded from the above mentioned problem.

2.4.3 The South African Socio-Economic Problems Post Mine Closure

Some of the above challenges are caused by factors such as environmental pollution, water and other related mining issues, to demonstrate this statement. Olalde (2015:3) reports that “thousands of abandoned gold mines are scattered across South Africa, polluting the water with toxics and filling the air with noxious dust. For the millions of people who live around these derelict sites, the health impacts can be severe”. The researcher supports the statement by deliberating on the following examples of cases where health impacts were caused by the deserted mine industries:

- The Blyvooruitzicht Gold mine, 50 miles west of Johannesburg, life and the gold haul were both good. But two years after mine’s owners abandoned it because it was unprofitable, sewage runs in the streets of the old mining village, tailings impoundments cover nearby towns in dust, and illegal miners rule the abandoned shafts; (Glan Steyn & Associates, 2007: 6) and
- One of the major environmental and health concerns is the vast production of acid mine drainage, especially around Johannesburg, which the water department estimates at up to 92 million gallons per day. Acid mine drainage mobilizes heavy metals in the environment, creates sinkholes, and pollutes water supplies (Glan Steyn & Associates, 2007: 8)

The Council for Scientific and Industrial Research estimated that as early as 2000, up to 20 percent of the stream flow around Johannesburg came from groundwater that was polluted, in part, by mines. And the air is no cleaner. Residents say that these piles cause health problems ranging from rashes, asthma to cancer. The list goes on, but a lack of local epidemiological studies has made it nearly impossible for communities near mine dumps to pursue litigation against mining companies (Olalde, 2015:1).

According to Marais, Van Rooyen, Nel and Lenka (2013:1), the two prominent regions that have been affected by mine downscaling are Matjhabeng (Free State Goldfields region) and the City of Matlosana (the Klerksdorp area). It was found that local responses generally underplay the notion of downscaling/closure in their strategic plans. National responses tend to ignore the economic problems associated with mine downscaling and suggest rather an increase in human settlement development. The result is an apparent mismatch between what is really required at the local level and the support actually being received from the national sphere. Both areas were hard hit by the initial downscaling attempts in the early 1990s. Yet, the actual data were not gathered to showcase the initial decline experienced between 1989 and 1996. The closure of the Stilfontein Mine at Matlosana in 1992 resulted in the loss of 24 000 jobs (Urban Foundation, 1994, in Marais et al., 2013:1). The closure of the above mentioned mine has led into the following problems: the properties were privatised and in turn the respective municipalities were increasingly at risk in that the payments for property tax and service now had to come from individuals/households and not from the mining companies and because these individuals were at risk of losing their jobs.

To alleviate the above problem, the Matlosana LED Strategy was revised in 2012. The strategy seeks to improve the business environment for selected economic nodes through the introduction of catalytic projects. Further attention is devoted to black economic empowerment by way of the municipality's procurement policies and the promotion of Small, Medium and Micro Enterprises (SMMEs). Various studies differ on the explanation and the description of the "impact", or the "significance" of LED on the livelihoods of communities. To add value to this process, agencies and municipalities developed strategies to rescue both humans and environment in their locality (Van Rooyen et al., 2013:5)

Nel (2001:30) argued that LED in the South African context utilises and seeks to ensure survival, rather than participation in the global economy, and operates at an informal level rather than a formal sphere as practiced in the North. According to Literature, there are few mining industries that are complying with the comprehensive mine closure

appropriately, mining communities are always affected by unemployment owing to mine closure and its indirect effects. From 1987 to until early 1992, 130 000 workers lost their jobs on the gold mines. Indications are that there will be further substantial retrenchments in the course of 1992. And this has occurred when only one mine closure has been announced (Stilfontein). The downscaling that proceeds actual mine closures affects all mines across the industry and is far more drastic than anticipated by the Marais committee. The knock-on-effect of the cut-backs in gold mining are also manifesting themselves. In March 1991, six construction and engineering companies that supply the mines closed the branches in Welkom with a loss of 1 200 jobs (Ledger & Nicol, 1992:19). The issue of mine closure can be said to have been of a low priority for most countries, as evidenced by the large numbers of abandoned mines that exist in virtually in every major mining country.

To solve the above problems many countries both first and the third world developed remedial strategies that were meant to alleviate ills in their respective countries. South Africa was not excluded from the above mentioned processes. Hence the government has developed legislative framework to improve the situation in the country. This legislation is discussed below.

2.5 The South African Legislative Framework for Mine Closure

In South Africa, mining closure is determined by various legislations, namely; the constitution of the Republic of South Africa, The Minerals Act (MA), 1991 (Act 50 of 1991), Mine Health and Safety Act (MHSA), 1996 (Act No. 29 of 1996, Nuclear Energy Act (NEA) of 1999 and the Minerals and Petroleum Resources Development Act (MPRDA) of 2002. However, closure planning has not yet been formalised and this has led to a range of unintended consequences (Adler, Classen Godfrey & Turton, 2007:02).

To back up this view, Swart (2003:250) attests that “formal mining in South Africa is more than 100 years old and South Africa has, and still is, relying heavily on mining activities to generate wealth that could be translated into economic development,

infrastructure and employment”. Early legislation focused on ‘surface rehabilitation’ and the primary emphasis of mining was on its economic gains. The government has a very crucial role to play in the mining industry, namely; the government acts as the ‘guardian’ of the environment through the Constitution, acts as a responsible mechanism to serve the public and taxpayers’ interest and to ensure a safe and healthy environment, acts as a promoter of sustainable development, acts as a final inheritor of remaining problems and mine legacies and also as the regulator of the mining industry.(Swart ,2003:250)

2.5.1 The Constitution of the Republic of South Africa

According to the current legislative framework for mine closure, *The Constitution of the Republic South Africa, 1996* and common law point out that mines have to comply with South African constitutional and common law by conducting their operational and closure activities with due diligence and care for the rights of others. Section 24(a) of the Constitution states that everyone has the right to an environment, which is not harmful to his or her health and well-being. Therefore, a person suffering harm as a result of mining activities may still claim damages from a mine and/ or its directors and even the shareholders in terms of company law, once the mine has closed. Sec 28 of the National Environmental Management Act, 1998 stipulates that any common law claims based on pollution emanating from a closed mine will have to be instituted by the plaintiff within three years of the incident which caused the pollution, unless it is an on-going source of pollution. A claim could be based on any of the following causes of action. This action can emanate from the acts mentioned below.

2.5.2. The Minerals Act of 1991

The Minerals Act, 1991 (Act 50 of 1991) provides statutory requirements enforcing environmental protection, the management of environmental impacts and the rehabilitation of the affected environment of prospecting and mining in South Africa (Swart, 2003:255). Other legislation such as the National Environmental Management Act (NEMA 1998), the National Water Act (NWA 1998), the Atmospheric Pollution

Prevention Act (APPA), 1965, and the National Nuclear Regulator Act (NNRA), 1999 and other applicable legislation provide, inter alia, further controlling measures. It is of the utmost importance that effective planning for closure should take place as early as possible in the life of a mine and, preferably, even before mining operations commence. Equally important is to identify the post-mining land use (or land use options if there is yet no certainty) so that mining methods, the placing of structures and interim rehabilitation actions may be adapted to meet identified goals cost effectively (Swart, 2003:260).

2.5.3. The Mine Health and Safety Act of 1996

The Mine Health and Safety Act (MHSA), 1996 (Act No. 29 of 1996) is administered by the Mine Health and Safety Inspectorate of the Health department. The following sections apply to the mine closure:

- ✓ Sections 2 and 5, where the employer must ensure and maintain a safe and healthy environment at the mine, during commissioning, operation, decommissioning and closure;
- ✓ Sections 6, 10 and 11 state that the employer must provide and supply adequate health and safety equipment, training and access and respond to any risk or hazard to which employees may be exposed;
- ✓ Sections 12 and 13 pertain to the medical surveillance system;
- ✓ Sections 19, 22 and 23 pertain to employees, rights to access to information, duties for health and safety and permission to leave a dangerous working place if circumstances arise.

2.5.4. The Nuclear Energy Act of 1999

According to the Nuclear Energy Act (NEA), 1999, South African gold mines are associated with radioactive elements such as uranium and its decay products due to chemical leaching or oxidation of pyrites. In terms of mine closure, radiological

requirements in terms of section 12 of the mineral act, 1991 must also be met before a Closure Certificate is granted.

2.5.6 Minerals and Petroleum Resources Development Act of 2002

Mine closure in terms of the Minerals and Petroleum Resources Development Act (MPRDA), 2002 is certainly a milestone in the transformation of the mining industry in all aspects. The Mining and Petroleum Resources Development Act (MPRDA), 2002 provides a holistic cradle-to-grave approach to prospecting and mining by fully considering economic, social and environmental costs to achieve sustainable development of SA mineral resources. In the preamble of the Mining Petroleum Resources Act (MPRDA), 2002, the State affirms its obligation to:

- “Protect the environment for the benefit of present and future generations;
- Ensure ecologically sustainable development of mineral and petroleum resources; and
- Promote economic and social development”.

Section 37 of the (MPRDA), 2002 confirms the adoption of the principles for sustainable development as set out in Section 2 of National Environment Management Agency (NEMA), 1998, as well as other generally accepted principles of sustainable development, by integrating social, economic and environmental factors into the planning, implementation, closure and post-closure management of prospecting and mining operations. Section 43 provides for the issuing of a closure certificate by the Minister of Minerals and Energy and the transfer of environmental liabilities to a competent person. The application for mine closure must be accompanied by an environmental risk report.

Section 44 provides for the retention or removal of buildings and structures. Sections 45 provides for the Minister to take urgent remedial action pertaining to environmental degradation and pollution and to recover costs in this regard. Section 46 provides for the Minister to rehabilitate abandoned and ownerless mines/dumps and to register such

sites in the title deeds of land and to transfer the liability for maintaining the rehabilitation work being undertaken to the responsible landowner. The MPRDA, 2002 also provides for the implementation of a social and labour plan. The purpose and objectives of such plans are to:

- “Integrate and manage the social, economic and environmental impacts of mining within all the phase of a mine, until closure;
- Avoid job losses and mitigate social and economic impacts on individuals should a mine close prematurely or at the closure of mines; and
- Avoid the establishment of settlements, which cannot be sustained after the closure of mines”.(Swart, 2003:260)

Apart from the involvement of acts and government , mine closure should also involve stakeholders such as mine management, mine employees, shareholders, the affected community, which includes landowners, local authorities, business and service providers, and community groups and Non-Governmental Organisations (NGOs) (Swart, 2003:260). As indicated above, mining closure is accompanied by various environmental, social and economic problems. However, different legislations do not spell out clearly the responsibilities of mines in poverty alleviation post closure. From the above legislative frameworks, there are also elements of governance, labour laws and administration that need to be taken into consideration.

2.6. The South African Government Administration and Management of Mines

The Mining Charter, 2002 which is largely based on the premise that the substantial economic inequalities associated with colonialism and apartheid, must be addressed. Therefore, the increased participation of historically disadvantaged South Africans is central to the document. The vision of the Mining Charter consequently is “to facilitate sustainable transformation, growth and development of the mining sector” (Department of Mineral Resources, 2010:2 in Marais *et al.*, 2013:6). The Mining Charter sets three objectives in respect of supporting this aim. Only one of the three objectives

concentrates on the living conditions of mine workers and mine communities and is phrased in the following words: “to promote employment and advance the social and economic welfare of mine communities and major labour sending areas” (Department of Mineral Resources, 2010:1). Two of the important elements of the charter are “mine community development” and “housing and living conditions”.

The Social and Labour Plans, to be developed by mining companies, became a requirement of the Mineral and Petroleum Resources Development Act, 2002, (Act No 28 of 2002) (Department of Minerals and Energy, 2006). To some extent, social and labour plans have become the social licenses of mining companies. Guidelines developed to support social and labour plans suggest that:

The Social and Labour Plan requires applicants for mining and production rights to develop and implement comprehensive human resources development programmes including employment equity plans, local economic development programmes and processes to save jobs and manage downscaling and/or closure. (Department of Minerals and Energy, 2006: 4)

The effective implementation of economic development plans and other processes depends on the conduciveness of environment legislature, financial support and other management plans.

Miller (2005:4) reports that more common today is the use of some type of Environmental Financial Assistance (EFA) to guarantee environmental performance after closure, so that ongoing environmental problems are avoided. The policy is also having the potential to reduce the scope for public criticism of industry practices. Governments and mining companies both have an interest in agreeing on realistic forms and amounts of EFA. This entails agreeing on the appropriate financial instruments and the expected standards of reclamation before a major mining project is committed.

To resolve this problem, the government is rewarding companies that revitalised distressed mining so as to re-employ the people who have lost their jobs due to closure. Sikhakhane (2015:1) announced that, because of the South African government's

strategy on revitalising distressed mining areas, which is an effort to improve the socio-economic conditions of distressed mining communities across the country, the government allocated about R18 billion to be spent on housing and wellness projects. “[T]he bulk of this funding is from government, with mining companies contributing appropriately a third of the funding, said South African president Jacob Zuma, as a lesson from the Marikana tragedy” (Buitendag & Coetzer, 2015:97).

Except for the above mentioned strategy, the government has also used another environmental regulation to curb environmental disaster in the neighbouring communities. Mine Sites (2012:1) attest that, over the last forty years, environmental concerns over abandoned mines and the cost to taxpayers for their clean-up, have led governments to tighten regulatory controls on mine closure. Mine land reclamation and closure plans are now required by regulatory agencies around the world, and are often a component of the environmental impact assessment process practised in over 100 countries. The process has a negative impact on people’s employment, labour migrations, environmental degradation and other socio-economic challenges.

2.7 Impact of Mine Closure on Local Communities

2.7.1 Employment and Labour Migration

Mining communities in most countries in the world have in common the problem, not just of the quantity of jobs, but of the quality of jobs as well. Long-term and stable jobs providing living wages are scarce. This basic situation on local labour markets has led to a worsening of living standards for many; a qualitative change in the nature of employment, with the emergence of informal, insecure forms of employment at lower wages with fewer legal and social safeguards; and the emergence of groups that are particularly vulnerable in these highly competitive job markets (Haney *et al.*, 2003:40).

2.7.2 Municipal and Social Services

Historically, the mining houses owned substantial properties for their workers. Downscaling meant that these properties were privatised and, in turn, that the respective municipalities were increasingly at risk in that the payments for property tax and service now had to come from individuals/households and not from the mining companies, and because these individuals were at risk of losing their jobs (Marais *et al.*,2013).

2.7.3 Environment

The Socio Economic Assessment Toolbox (SEAT) was developed by Anglo American mining house in 2003. “The toolkit represents one of the most significant corporate investments already known to equip personnel to better understand, plan, implement and account for mine closure” (Anglo American Mining House, 2009). The effects of mine closure result in future challenges to the affected community and those who live close by, consideration should be made on environmental and social impact before the whole process unfold. Furthermore, if the above tool can be manage well, it can assist the local development agencies to create jobs amongst the affected communities.

2.7.4 Local Development and Job-Creation

According to Nel and Rogerson (2005: 16), A standard policy response to the high unemployment that can arise from industrial restructuring is to foster the diversification of the local economy through the creation of jobs outside of the impacted sector, and to seek to improve the match between the available jobs and workers’ skills through various active labour market policies. In Romania, Russia and Ukraine, among the common mechanisms used in pursuit of these goals are, namely: the provision of microcredit (sometimes grants) to individual entrepreneurs and subsidized credits to small and medium enterprises; technical assistance and support for business development through business incubators and workspace centres; and programs matching jobseekers with potential employers through subsidized on-the-job training or training in another profession, in addition to the more traditional local employment

offices that provide information on vacancies to job-seekers. Public work programs are also a common and important policy-response to mass unemployment, although these are generally transitional programs that do not seek to create permanent jobs (Sikhakhane ,2015:1)

2.7.5 Migration

Those who normally get jobs in their neighbouring towns, they migrate to other towns, they cause more problems such as migration and community cohesiveness.

The logical complement of the local development response to the dramatically worsened local labour market conditions following mine closure is migration. Migration is directly linked to the local labour market in two important ways, namely: (i) it arises as a response to the lack of employment (or employment acceptable to the migrating individual); and (ii) it relieves the pressure on the local labour market for those who do not migrate. Seen from this perspective, migration can be considered not only in the positive sense as a common response by individuals and families to difficult circumstances, but also in the normative sense as a desirable outcome that can help achieve equilibrium on the local labour market (Mutheiwana, 2009:53).

2.7.6 Community Cohesiveness

As stated by Malatji (2012:6), there are consequences of mine closure that includes employment problems, housing and social infrastructure deterioration which are often addressed in governments' coal sector reform programs. However, other dimensions of the social consequences of mine closure are often under-resourced or downplayed. These include: problems of a more psychological or behavioural nature, including various manifestations of socially undesirable or self-injurious behaviour such as substance abuse.

Communities in which mines are closed face various response options, ranging from an activist stance of resistance, expressed through various forms of protest, to a proactive or constructive approach to the changed conditions of life, with probably the most common response being a form of retreat of the individual from the broader community and, in some cases, even from his or her own family in the face of the difficulties of getting by. It is common that different members of the same community can and do exhibit widely varying reactions to the same set of external circumstances and to changing circumstances over time, and this reaction will depend, in addition to personal attributes, on the severity of the employment problem, the quality of the national and local political leadership, and the resilience of the community of which the individual is a member (Haney et al., 2003:40).

Malatji (2012:7) argues that these factors will play an important role in determining the nature of the social tension that is experienced in communities in response to mine closure and the extent to which this social tension in turn serves as a form of feedback that influences local and national implementation of the coal sector restructuring policy, including the continuation of a program of closure of loss-making mines.

South Africa has so many mining lessons to learn from the three countries mentioned earlier. One of the lessons is that, although mining is in private hands, the government is directly involved in the development of the mining industry. Certain consequences of mine closure of an obvious social import, such as widespread employment problems and housing and social infrastructure deterioration, are addressed in governments' coal sector reform programs through mitigation policies that are generally under implementation (Haney *et al.*, 2003:40). The above mentioned socio-economic problems can also have implications to the research communities at Ba-Phalaborwa.

2.8 The Socio-Economic Impacts of Mine Closure in the Phalaborwa Area

The economy of the Ba-Phalaborwa municipal area is highly dependent on the mining industry. Eighty percent (80%) of the total revenue generated in the municipal area relates to the mining industry. Transport, manufacturing and other sectors serve only as support sectors to the dominant mining sector. However, about 47% of the population in the area is unemployed and ravaged by poverty due to the closure and downsizing of the mines because of depletion of resources (Greater Phalaborwa Trade and Tourism Council, 2005:03).

In consonance with Nel (2001:26):

Mine closure is one of the mining industry's toughest sustainable development challenges. At the same time, it provides an opportunity for the industry to demonstrate its commitment to sustainable development by incorporating socio-economic aspects, along with the more physical aspects, into the mine planning process. Even though mining companies may not have sole responsibility for addressing the socio-economic impacts of mine closure, they are key players with significant power, influence and resources. This positions them as important players in the local context, and as potential catalysts for focusing attention and effort on mine closure impacts.

To substantiate the above statement, Malatji (2012:9) indicates that, by considering mine closure early, operations are in a better position to avoid creating dependency on the mine for social and community services and economic benefit. Of course, the scope of company liabilities and responsibilities will depend on the type of town, e.g., a mining town that is dependent on mining, versus a diversified economy. For some mining communities, mine closure will mean that towns are no longer viable. In these situations, mines can still contribute to broader sustainable development principles in

other ways. For example, they can help build human capital through employment and workforce training and subsequently increase the mobility of people by improving individual economic situations and developing transferable skills. However, this may not be everyone's idea of contributing to sustainable development, which may be a point of tension between towns facing closure and companies that have made strong commitment to sustainable development. The Ba-Phalaborwa mining sector is not excluded from the above problem.

In April 2002, mining ceased in "The Open Pit" of the Palabora Mine and many mine workers were retrenched. However, the life of the mine was extended by another 20 years with the new underground mine. The cut-off date could be extended to 2017 if the average copper price remains above \$1.75 per pound. The direct implication is that approximately 2,550 of the current 3,350 jobs at Palabora Mining Company (PMC) could be lost at this time, resulting in a similar loss of jobs in the local economy as an indirect impact (Greater Phalaborwa Trade and Tourism Council, 2005:02).

If the decisions had been made to close the mine down at the end-of-life of the open pit, the following negative implications and other negative multiplier effects would have resulted, not only for the local socio-economic situation, but also for the regional and national economies (Lutman, 2000:12).

2.8.1 Economic Implications

2.8.1.1 For the South African Economy

Palabora supplies 100% of South African refined copper. Closure of the mine would mean that copper would have had to be imported, having a negative effect on the balance of payments. The closure would also have had multiplier effect on the national and regional tax bases, amounting to an estimated R300 million (Lutman, 2000:12). The management of the above copper mine, Palabora Mining Company (PMC) should

develop a future plan before area reach depletion. This will assist in the expansion of local economy even after the closure.

2.8.1.2 For the Local Phalaborwa Economy

With a sprawling population of some 200 000 within a 50km radius of Phalaborwa, the mine, together with several smaller interdependent organizations, produces approximately 80% of the area's Gross Domestic Product (GDP). Palabora Mining Company is the area's largest employer. The closure of the Palabora mine would have had a disastrous effect on the economy, through a major reduction in employee spending power, leading to the closure of mining supply and contractor businesses, transport, companies, estate agencies, legal firms, retail outlets and shopping centres to name some. The company's expenditure on educational assistance, medical aid, services from Eskom and the Lepelle Water Board (LWB) and the local municipality runs into millions of rands per month (Lutman,2000:2).

2.8.2 Social Implications

Mining is the main source of direct and indirect employment in this area. The major problem facing the communities is that the mining resources are depleted and therefore the mines are facing closure. Sasol Nitro was closed in 2009 and all the mineworkers were retrenched. Consolidated Murchison Mine is facing closure in 2014 and Palabora Mining Company (PMC) will be closed in 2017 (Greater Phalaborwa Trade and Tourism Council, 2005:03). This will result in many people losing their income. The majority of these workers are unskilled and will be unable to be employed in other fields. Those who were trained at the FET colleges received skills that enabled them to work in the mines (Ba-Phalaborwa Municipality, 2011/2016:08). The closure of the mines will also result in an indirect increase in the unemployed people, since those enterprises that did business with the mines will also be bound to curtail their labour force. The Ba-Phalaborwa Municipality's main challenge is to stimulate the local economy and attract

sustainable investment into the area (IDP, 2009:97). After the above processes all stakeholders should put the money in reserves, so as to help the local municipalities to improve its economy even after the depletion of resources in the area.

2.9 Poverty Alleviation Strategies Post Mine Closure

2.9.1 Sustainable Livelihood Approach

In this study, the poverty alleviation strategies are based on sustainable livelihood approach. The International Institute of Sustainable Development defines Sustainable Livelihoods as being concerned with people's capacities to generate and maintain their means of living, enhance their wellbeing, and that of future generations (Balgis *et al.*, 2005:45). In the modern era, the sustainable livelihoods approach has gained increased recognition among development practitioners and policy makers alike as the framework for understanding the multiple and dynamic dimensions of livelihoods (Balgis *et al.*, 2005:45). Sustainable livelihoods approach does not discard the principle of responsive and community participation. Hence it emphasises that the poor must be active in identifying and addressing livelihood priorities (Krantz, 2001:24). Sustainable livelihoods approach is community-centred and emphasises local priorities, interpretations and abilities, with the aim of building on the existing capacities of the rural poor (Sporton & Thomas, 2002:10). This implies that poverty alleviation strategies should equip the communities with essential skills for fighting poverty instead of giving them hand-outs.

2.9.2 Principles of Sustainable Livelihood Approach

The sustainable livelihoods approach, like any other, is guided by some principles. The following are the principles of the sustainable livelihoods approach:

2.9.2.1 People-Centred Sustainable Livelihood Approaches

This approach recognizes that communities and people are different and not homogeneous (Goldman, 2001:12). Consequently, the external support should

differentiate between various groups of people (Goldman, 2001:12). Krantz (2001:25), on the other hand, asserts that sustainable poverty elimination will be achieved only if external support focuses on what matters to people, understands the difference between groups of people, and works with them in a way that is congruent with their current livelihood strategies, social environment, and ability to adapt.

2.9.2.2 Responsive and Participatory Sustainable Livelihood Approaches

Poor people should not be treated like passive objects when dealing with their poverty (Goldman, 2001:12). For any strategy to alleviate poverty, the poor need to be active and need to participate fully. They need to be involved at all levels in managing their development because they understand their situation better than outsiders. Poor people themselves must be key actors in identifying and addressing livelihood priorities. Outsiders who come to support the poor need processes that enable them to listen and respond to the poor (Krantz, 2001:25). This could be achieved through proper needs assessment and involving their clients in planning at all levels.

2.9.2.3 Asset Based Sustainable Livelihood Approaches

Every human being or society has strengths and weaknesses. Consequently, poverty-focused development should recognise and build on people's strengths (Goldman, 2001:13). This can start by establishing what resources are present at a particular place. When trying to find out people's strengths one needs to focus on the positive aspects than negative. Support should result in increased voice, opportunities and well-being for people, including the poor (Krantz, 2001:25).

2.9.2.4 Holistic Sustainable Livelihood Approaches

For initiatives to be successful, there has to be a synergy between the works of different departments (Goldman, 2001:14). People also need to weigh up the implications different strategies. Krantz (2001) indicates that we need to understand people's livelihoods and how these can be enhanced in a holistic way, which recognises the

interrelationships between the different aspects of their lives, although actions arising from that understanding may be focused. The above principles will be used, inter alia, to evaluate the various strategies for poverty alleviation in the Phalaborwa area.

2.9.3 The Role of Mines in Poverty Alleviation

The mining industry in the Ba-Phalaborwa Municipality, play a major role in alleviating poverty in this area. The following discussion will be followed on individual mines.

2.9.3.1 The Palabora Mining Company

The Palabora Mining Company (PMC), which retrenched many mineworkers in April 2002, subsequently created job opportunities through the following projects:

- Upgrade of Lantana substation (electricity) Phalaborwa Ext 1;
- Waterbok Agricultural project in Selwane village; and

Oil extraction in Makhushane village—Construction of depot. (Ba-Phalaborwa Municipality, 2012:16).

The Palabora Mining Company (PMC) also proposed eight strategic interventions on the basis of local needs and development sustainability in order to absorb the anticipated job losses and to promote new job creation, namely; mining reclamation of waste dumps, extended copper mining and limonite mining, various tourism proposals, settle support for land claims and combined scarce game breeding with cattle farming, marula product manufacturing, beneficiation of commodities from mine dumps, housing construction, informal trading support and other interventions to promote entrepreneurship and upgrading of social infrastructure. (Ba-Phalaborwa Municipality, 2012:18).

2.9.3.2 Foskor

Since 2008, Foskor has invested about R20.2 Million in development, agriculture, social welfare, healthcare, with skills and job creation being the key focus areas (Foskor

Integrated Annual Report, 2012:04). According to the report, amongst Foskor's community, development projects are the following:

- Funding of Local traditional leaders as their stakeholders. Funds are set aside for these leaders to finance causes. In 2010, tagging cattle with reflective collars was adopted. Road fatalities caused by cattle straying into the road at night had been excessive on the Ba-Phalaborwa roads between Namakgale and Mica. This initiative supports road safety;
- Huis-Maroele is a four-room bedroom house owned by Foskor. It is leased at a minimum rate to the Women's Federation and used as a shelter for abused women;
- Graders from the Mining Division are made freely available over weekends to assist local schools in upgrading their sports facilities and playgrounds and to assist with road repairs;
- Allocated funds are used to maintain and equip the Training Centre with the latest technology to assist retrenched workers and parolees with skills;
- An annual Careers Day Exhibition is held to inform learners about opportunities available within the company;
- Since 2006 the Dinaledi Schools Initiative runs in partnership with the Department of Education and is aimed at Grade 12 learners with a potential to pass higher grade Mathematics and Physical Science Foskor primary School hosts 617 learners and is located next to the Foskor Community Centre in Namakgale. About 90% of learners attending the school are children of Foskorites. Children at Foskor Primary School received two mobile libraries consisting of 800 books and an LCD TV which included 30 educational DVDs. Foskor funds the school to ensure optimum education as well as the upkeep and continuous maintenance of the school;
- In partnership with Palabora Mining Company (PMC) and Sasol Nitro, funding is provided to the ProtecTechnological Careers Programme;
- Food security and skills development projects such as the establishment of more sustainable crop production for many farming communities;

- Empowering retrenched and disadvantaged adults with portable skills such as beadwork to create items such as waist belts, earrings, spectacle holders and necklaces;
- Akanani School was established to assist the destitute boys;
- The Paediatric Ward at the MaphuthaMalatji Hospital in Namakgale was renovated to create a more child-friendly and welcoming environment;
- Local Economic Development projects (LED) such as development of Bollannoto Tourism and Information Centre, paving streets in Namakgale and Lulekani, creating jobs for the community;
- The Foskor company has shown their social responsibility by committing an amount of R26 million to assist the municipality in a multi-year basis on projects such as rehabilitation of streets in Phalaborwatown, Lulekani and Namakgale, brick-making project and rehabilitation of landfill site - thus providing temporary employment for unemployed community members; and
- Building of the Lulekani Sports Precinct aimed at improving sports participation.

From the above information, it is clear that the local mines at Ba-Phalaborwa tried to improve the local economy of the neighbouring disadvantaged community. To hold up the above mining initiative, the municipality has also developed infrastructures to enhance economic growth in the area.

2.9.4 The Role of the Ba-Phalaborwa Municipality in Poverty Alleviation

A mine is often the primary provider of income, employment and services in a local economy (Limpitlaw, 2004:01). The closure of the mine thus has significant impacts on the well-being of the community. This impact is more extreme in developing countries where local government lacks capacity to structure a development process that would provide alternative economic opportunities (World Bank, 2003). The economy of the Ba-Phalaborwa Municipal area was affected by the high rate of poverty, unemployment and global economic meltdown and consequently the municipality has embarked on several poverty alleviation strategies. The Ba-Phalaborwa Municipality has committed

itself to the development of wildlife tourism throughout Ba-Phalaborwa. In total, the commitment for Social Labour Plan and Corporate Social Investment (CSR) of Palabora Mining Company (PMC) in 2011 was R50, 793, 949 (Ba-Phalaborwa Municipality, 2012:19). The municipality has strong expectations regarding the contribution of tourism to the future development of the area and poverty alleviation of its people. The municipality has adopted a new vision to grow the economy and create employment through wildlife tourism. The proposed brand for the municipality is the 'Jewel of Wildlife Tourism'. This vision and this proposed branding calls for a robust tourism development strategy that will include product development, service improvement and development facilitation that follows.

A scoping report on tourism opportunities on the Phalaborwa Corridor by KPMG concluded that priority should be given to:

- Development of the Hans Merensky Club into an international resort;
 - Construction of an international mid-range hotel at the gate to the Kruger Park;
- and

Promotion of the Marula industry. (Municipal IDP, 2012/13: 105).

To augment the above drive, other agencies requested to improve other amenities related to tourism in order to develop the economy, such as the two provincial nature reserves, the Letaba Ranch and the Hans Merensky Nature Reserve are located within the Ba-Phalaborwa Municipality. In total, the commitment for Social Labour Plan and Corporate Social Investment of Palabora Mining Company (PMC) in 2011 was R50,793,949 (Ba-Phalaborwa Municipality, 2012:19). Letaba Ranch is located adjacent to the Phalaborwa Gate of the Kruger National Park (KNP) and is home to the big five game species. Animals move freely between these parks. Letaba Ranch comprises more than 35,000 hectares and game species such as buffalo can be carried in large numbers. Accommodation used to comprise 10 bungalows in the main camp, but this has been damaged by floods to such an extent that visitors are no longer permitted to use this facility. There is a small ivory route camp with sleeping facilities for 10 persons. Plans have been compiled to attract day-visitors for eco-adventures (Municipal IDP, 2012/13: 107-108).

As affirmed in the Municipal IDP (2009/10:87):

The municipality has potential wild-life game reserves, to unlock tourism attractions, The Hans Merensky Nature Reserve comprises 5,200 hectare and is located in the north-western part of Ba-Phalaborwa Municipality adjacent to the Eiland Forever Family Resort and approximately 50km from Letaba Ranch. The other dominant land-use in Ba-Phalaborwa Municipality is game farming and scarce game breeding. Several successful clean buffalo breeding farms have been established, as well as a number of internationally known game lodges. Considerable management and operational skills have been accumulated in these fields during the past twenty years. Effective development of wildlife tourism throughout Ba-Phalaborwa is ecologically feasible and seemingly financially viable, but will require that the municipal vision should be shared by all stakeholders and that a strategy with business plans should be formulated to guide the implementation process.

The Phalaborwa Trade and Tourism Council is working with Ba-Phalaborwa Municipality on a number of initiatives to promote tourism to the region and the town, to shift the community focus away from a mining town to a town that thrives on tourism. Phalaborwa is the gateway to the recently proclaimed Greater Limpopo Trans Frontier Park. Local Government, the Foundation and the Greater Phalaborwa Trade and Tourism Council are identifying and developing projects and programmes to ensure that the town and the community will be able to cater for larger volumes of tourists in the future(Phalaborwa Trade and Tourism Council, 2005:06).

The municipality has forged effective partnership with financial providers, for other projects that could address the socio-economic challenge in their area. According to

the Municipal IDP (2010/15:89), The following major projects were implemented by the Municipality through the Neighbourhood Development Partnership Grant (NDPG), aimed at unlocking and improving local socio-economic conditions. The Projects include, Namakgale Indoor Sports Centre, Lulekani Sports Precinct, Selwane Thusong Service Centre, Flea Market, rest Station, and Maphuta Malatji Hawkers Facilities etc. And furthermore the Municipality has successfully facilitated the launch of co-operatives and supported Small, Medium and Micro Enterprises (SMMEs), where 378 jobs were created through municipal capital projects and private sector initiatives in 2011.

2.9.5 The Role of Non-Governmental Organisations (NGOs) in Poverty Alleviation

The non-governmental organizations (NGOs) compared to the government have a comparative advantage in service provision and poverty alleviation (Suharko, 2007:02). Riddel and Robison (1995:36), as cited in Suharko (2007:03), argue that their advantages are:

- Their ability to deliver emergency relief or development services at low cost, to many people, in remote areas;
- Their rapid, innovative and flexible responses to emerging financial and technical assistance needs at the grass roots level;
- Their long-standing familiarity with social sector development and poverty alleviation; and
- Their experience with small-scale development projects as well as with those requiring a high degree of involvement by, and familiarity with, the concerned target groups. (Riddel et al., 1995:36).

Furthermore, Non-Governmental Organisations (NGOs) strive to improve people's access to services provided by the State (Suharko, 2007:05). In poor countries where government lacks public services, Non-Governmental Organisations (NGOs) play a significant role in the direct provision of social and economic services. Consequently, Non-Governmental Organisations (NGOs) emerge and play a role of providing services and help the poor to move out of poverty as pointed out. Non-Governmental

Organisations (NGOs) are also creditable for their long endurance and engagement with the rural poor. From the beginning, Non-Governmental Organisations (NGOs) were formed to respond to the ill-being of the poor. The long-term engagement with the poor makes them to gain more experience and knowledge in dealing with complex and structural problems of poverty. Such experience and knowledge when gained lead to the formulation and implementation of genuine and innovative strategies and approaches to poverty reduction (Smillie et al., 200

In South Africa, we have several Non-Governmental Organisations (NGOs) that are involved in the alleviation of poverty amongst the poorer communities, but in the case of Ba-Phalaborwa Municipality, there is one Non-Governmental Organization (NGO), namely, the Palabora Foundation. The Palabora Foundation is a non-profit organisation, an independent educational trust and a National Skills Fund (NSF) accredited provider. It was established to assist communities within 50km radius of Phalaborwa to be self-reliant. It also provides support in all areas of community development from welfare and early learning all the way through to business and enterprise development. The Palabora Foundation provides an integrated support and education system that helps people in the community. Many of the programmes fit together to create a corridor of capacity building. There are two main centres of Palabora Foundation, namely; Leboneng Centre, in Namakgale Township, and Rixile Education Centre in Lulekani. The two centres provides training in various fields such as computer literacy, welding, painting, plumbing, carpentry, cookery, hospitality services and dressmaking. Many people from the neighbouring communities, such as Makhushane, Maseke, Mashishimale, Lulekani and Siloane, graduate from the two centres. The centres also cater for full time learners offering various programmes for Grades 10 to 12 learners, such as Master Maths for, Computer Literacy, Physical Science, Life Orientation and English. It is in the centres that retrenched mine workers acquire new skills for sustainable livelihood. An HIV/AIDS healthcare centre is also operating at the Palabora Foundation head office premises in Namakgale Township (Social and Labour Plan Guideline, 2010/11:17-18).

2.10 Conclusion

Chapter Two focused on the review of literature on strategies implemented by various stakeholders to combat poverty among communities post mine closure. Literature reveals that there is little evidence about the effectiveness of many strategies of poverty alleviation implemented in many countries. Literature also reveals that many mining companies throughout the world put their agenda first as they lack transparency, are not accountable to their clients, they are not democratic, and that they bring superficial strategies for combating poverty. The literature also reveals that post-mine closure many communities are in deep poverty, especially in the rural areas of the developing countries and that environmental concerns are put above the immediate socio-economic challenges experienced by affected households. The subsequent chapter (Chapter Three) focuses on research methodology and design of the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In the previous chapter a detailed literature review has been presented. This chapter is aimed at highlighting the methodology used in conducting the study. The chapter includes description areas of the study where the research was conducted, research population, sampling methods, method of data collection, process of data collection, method used in data analysis and research ethics observed during the study. The chapter ends with the summary of ethical issues recognized in this study.

3.2 Research Design Approach

According to Babbie and Mouton (2009), research design is defined as a plan or structured framework of how one intends conducting the research process in order to solve the research problem. Other authors such as (De Vos and Fouche 1998:77) define research design as an overall plan put in place to conduct a research study.

The study utilised a qualitative research design, a qualitative research means any type of research that produces findings not arrived at by statistical procedures or other means of quantification (Strauss & Corbin, 1998:10).

The choice of the approach will not only unravel unsaid feelings and unsaid words, but it will also enable a deep interpretation of the situation. Neumann (2006: 152) states that qualitative design can be highly effective for creating a feeling for the whole, for grasping the subtle shades of meaning, for pulling together divergent information and switching perspectives. For these reasons, the researcher opted for this research

design, The design of this research was a case study in which the researcher wishes to evaluate the strategies for combating poverty among communities post mine closure in the Ba-Phalaborwa Municipality. It also allowed the researcher to explore the strategies that could be implemented to combat poverty among communities post mine closure in the Ba-Phalaborwa Municipality.

3.3 Study Area

This study was conducted in the Ba-Phalaborwa Municipality. Ba-Phalaborwa Municipality is situated on the North-Eastern part of South Africa in the Limpopo Province. It is one of the four local municipalities in the Mopani District. The municipality was chosen because it is economically well resourced and serves as a convenient gate way to the Kruger National Park and the Transfrontier Park through the Mozambique Channel and renowned for its mining activities, the municipality consists of four mining companies. In spite of the above mentioned opportunities, people are still living in poverty in the area.



Source: http://findmeaccommodation.co.za/province_map.php?pro=5

Figure 3.1: Map of Limpopo showing the location Phalaborwa

3.4 Research Population

Mouton (2001:124) defines population “as the sum of all cases that meet the definition of the unit of analysis”. The study was conducted in the Ba-Phalaborwa municipal jurisdiction with special focus on all the retrenched employees in the four mining companies, mining officials from the four mining companies, municipal officials including councillors (representative for community members) and officers from the Palabora Foundation (an NGO in the area).

For the purpose of this study the population had been 150 people. It is therefore from this population that a sample was drawn for the purpose of this research.

3.5 Sample Size and Selection Method

Sampling is the “process of selecting a few from the many in order to carry out empirical research” (Pickard, 2007:59). In this study, purposive sampling was used. According to Babbie (2007:184), purposive sampling is a type of non-probability sampling in which the units to be observed are selected on the basis of the researcher’s judgement about which once will be the most useful or representative.

Therefore, for the purpose of the study, a sample size of 50 people was selected, considering those who are relevantly affected and willing to participate. But a total of 40 respondents participated in the study. In view of the aim of this study, a stratified random sampling was used to select the sample of this study. The rationale for choosing a stratified sampling method is precisely to select the appropriate number of subsets, because the population on which the study is based is heterogeneous.

The sample as illustrated in Table 3.1 consisted of twenty (20) retrenched employees twelve (12) male and eight (8) female from the four respective mines were selected for the study taking into consideration gender to make it inclusive, 6 municipal officials, twelve 12 mining officials from the corporate affairs and Human resource department

were drawn in gaining the required information and drawing conclusions. Lastly, the two officers from the Palabora Foundation.

Table 3.1: The Study Sample

Sample category	Sample size
Retrenched employees	20 from PMC, FOSKOR and Sasol Nitro mines
Municipal officials	06
Mining officials from the corporate affairs and Human resource departments	12 from PMC, FOSKOR and Sasol Nitro
Officers from the Palabora Foundation	02
TOTAL	40

3.6 Data Collection Method and Data Collection Process

The key data collection instruments adopted in this study is the semi-structured face-to-face interview. Semi-structured interviews were conducted with municipal officials, retrenched employees as well as mining officials. The interview guide was compiled and face-to-face interviewing was used as it was appropriate where “depth of meaning is important and the researcher primarily focused on gaining insight and understanding” (Gillham, 2000:11; and Ritchie & Lewis, 2003:138).

The interviews took approximately twenty minutes and the process took one month and a week to complete. This qualitative technique facilitated the elimination of superfluous questions and the reformulation of ambiguous ones, semi-structured interviews “...allows for the discovery of new aspects of the problem by exploring in detail the explanations supplied by the respondents, the methods also helped to clarify concepts and problems and they allow for the establishment of a list of possible answers” (Bless, Higson-Smith & Kagee, 2007:119). For this study, the respondents were interviewed in

different places, for example, all officials from the mining, municipality and the NGOs were interviewed at their offices. While all the retrenched employees were interviewed at the local school.

The following systematic procedure was used in collecting the data:

- Requests were made with the mining officials, municipal officials and executive of the Palabora Foundation; FOSKOR Mining Company, Sasol Nitro Palabora, Ba-Phalaborwa Municipality and Palabora Foundation;
- Appointments with the respondents were arranged prior the interviews;
- The researcher explained the questionnaire to the respondents;
- The purpose of the study was also explained to the respondents;
- The time to be spent completing the interview was also mentioned to the respondents;
- Respondents were requested to ask questions for clarity before both agreeing to participate and the commencement of the interview;
- The researcher reiterated that participating in the study is voluntary and that respondents have the right not to participate and/or to withdraw at any given time if they do not feel comfortable to continue with the questionnaire;
- Permission to use the tape recorder was sought; and
- The interviews were tape recorded and field- work notes were taken.

3.7 Data Analysis

The data were analysed using the steps of Grounded Theory as outlined by Curtis and Curtis (2011:44-35). The Grounded Theory method used both three steps of coding the data – *open coding*, *axial coding* and *selective coding*, and theoretical coding.

3.7.1 Open Coding

In this step, the researcher read through the data several times and then created tentative labels of data that summarises what you see happening. The data were

reduced to small set of categories that seem to describe the phenomenon that is under investigation (Curtis & Curtis, 2011:44).

3.7.2 Axial Coding

Axial coding involves the identification relationships among the open codes (Curtis & Curtis, 2011:45). In this step, the researcher made connections amongst the categories discovered in during the open coding to each other. This was done through putting data categories together in new ways that made sense in relation to the data.

3.7.3 Selective Coding

Lastly, the researcher re-read the transcripts and selectively codes any data that relate to the core variable you identified (Curtis & Curtis, 2011:45). The researcher selected the core category and systematically related it to the other categories in order to form a '*storyline*' that describes '*what happens*' in the phenomenon that is being studied.

3.8 Trustworthiness Measures

According to Loh (2013:4), trustworthiness measure means in qualitative "...the criteria with which to ensure quality" that includes respondents validation (or member checking), confirm ability and reliability.

3.8.1 Respondent Validation

According to Harper (2012:511), respondents' validation is a process of data quality control whereby a researcher "seeks to improve the accuracy, credibility and validity of what has been recorded during a research interview".

In this study, member checking was done during the interview process and also at the conclusion of the study. During the interview the researcher constantly summarised the respondents' information to determine accuracy. At the end of data analysis, the researcher shared the transcripts with the respondents to check if they match with the narrative of the interview.

3.8.2 Confirmability

Sinkovics, Penz and Ghauri (2008:699) define conformability as objectivity of quantitative research. Conformability is used to demonstrate that by data and its interpretation thereof are deeply-rooted in conditions and situations outside from researchers' own bias and are coherently and logically assembled.

To ensure confirmability, the researcher followed (Lincoln &Guba, 2004:63) the strategy of reviewing the records of the data:

1. The original data that includes field notes and recorded audio;
2. The data reduction and analysis products, which includes quantitative summaries and compacted notes;
3. The data reconstruction and synthesis products that includes classifications and interpretation of data;
4. The process notes that includes procedures and design techniques and trustworthiness information);
5. The materials associated with intentions and dispositions (research proposal and field journal); and, lastly,
6. The instrument development information that includes the process of developing the interview guides.

3.8.3 Reliability

According to Anderson (2010:2), reliability in qualitative study refers to the consistency of the research findings. To ensure reliability in this study, the researcher made sure consistency throughout the process of data collection, data transcribing and analysing the findings.

3.9 Ethical Considerations

According to Mertens and Ginsberg (2009:59), ethics in research means ensures that “moral integrity of the researcher is a critically important aspect of ensuring that the research process and a researcher’s findings are trustworthy and valid” and that the researcher should consider the respondents’ feelings.

3.9.1 *Permission to Conduct*

Permission to conduct research is an integral part of the social science (Matthew & Ross, 2010:473). In this study, permission to conduct the study was sought and obtained from the Turfloop Graduate School of Leadership Research Committee, Mining Companies, Municipal offices and the Palabora Foundation.

3.9.2 *Informed Consent*

All respondents were given formal informed Consent Forms indicating that they are willing to voluntarily take part and un-coerced, and respondents were also informed that they can voluntarily withdraw their participation at any time without giving reasons (Kaiser, 2009:10).

3.9.3 *Protection from Harm*

Protecting the rights and minimising harm to the research respondents in research is a fundamental principle of ethical research (Shaw & Barrett, 2006:14). The researcher assured the respondents that they would not be exposed to any physical or emotional harm.

3.9.4 *Anonymity and Confidentiality*

According to Crow and Wiles (2008:1), anonymity and confidentiality of respondents are central to good ethical practices in social research. Respondents in this study were assured that their identity would remain anonymous. This is in line with the spirit of respondent’s confidentiality whereby the identity of the participants should not be

revealed when using data provided by the respondents. Accordingly, code names were used to avoid mentioning names of the respondents in during the interviews.

3.10 Conclusion

This chapter highlighted the methodology used in conducting the study. The chapter included a description of the areas of the study where the research was conducted, research population, sampling methods, method of data collection, process of data collection, method used in data analysis and research ethics observed during the study. The chapter ended with the summary of ethical issues recognized in this study. The following chapter presents the analysis of the research data collected from the research investigation.

CHAPTER 4

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents the analysis of the research data collected from the research investigation. The research analysis is presented in the form of graphs, pie charts for Section A of the interview and themes and narrations for Section B of the interview. The data were collected from the following respondents: the retrenched employees from the three mining companies; mining officials; municipal officials, including councillors; as well as targeted officials attached to the NGO.

4.2 Data Management and Analysis

4.2.1 Response Rate

From the sixty (60) selected population of study, fifty (50) respondents were sampled for interviews. Out of the fifty sampled respondents, forty (40) respondents, constituting 80%, participated in the study. As such, the findings of the research study relates to the responses given by the forty (40) respondents.

The following sub-questions were used to identify indicators to prove whether the strategies to be effected benefit the poverty stricken communities:

- What are the challenges faced by Ba-Phalaborwa communities after mine closure?

- To what extent does the retrenchment of the mining employees affect communities?
- To what extent are the poverty alleviation strategies benefiting the community?
- Which poverty alleviation strategies can be pursued for the poverty-stricken community?

The findings of the study are based on the major problem that this dissertation is focusing on. Most studies conducted on poverty alleviation strategies related to post mine closure focus on a general scale, without taking into considerations the views and perceptions of those who are affected by poverty. For this study, semi-structured face-to-face interviews were carried out for an unbiased evaluation on measuring the significance of poverty alleviation strategies on the stricken communities in the Ba-Phalaborwa Municipality. The rationale for using the questionnaire method was based on fact that it is quicker and cost-effective in the collection of information from a larger group of respondents. The presentations and interpretations of the information are done by describing the importance of the effective poverty alleviation strategies on the lives of the interviewed respondents.

4.2.2.1 Gender

The pie-charts reflected below show the gender description of the respondents. In terms of gender, out of the 20 respondents, 20% (4) were female whereas 80% (16) were male. This majority of male respondents in the study gave an impression that the number of retrenched employees was men. These findings reflect that a large number of men are employed in mines than women, due to the fact that most jobs offered by mines involve hard labour ideally not suitable for women. Below is a pie chart to illustrate the distribution of this frequency by gender.

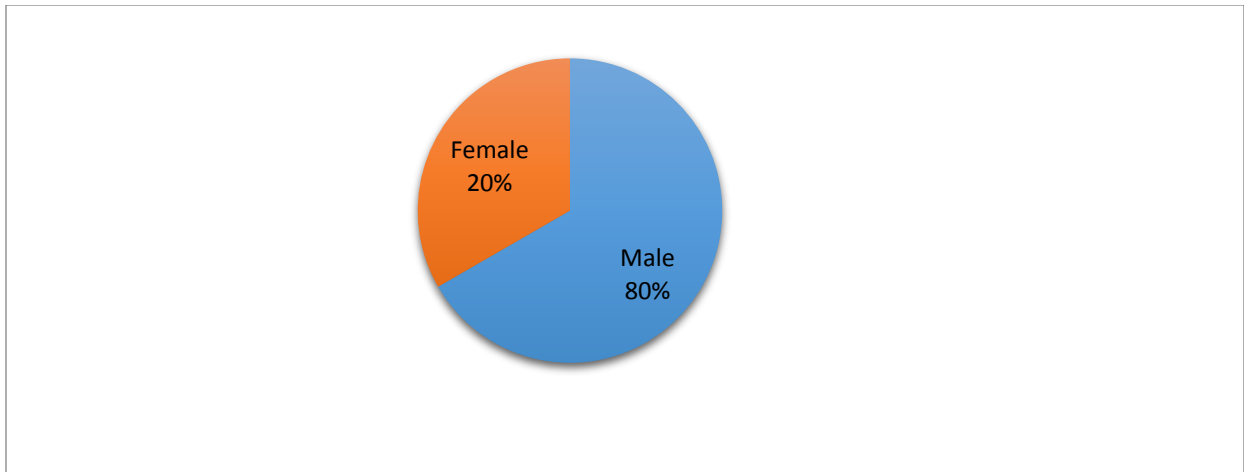


Figure 4.1. Pie chart representing the gender of the respondents

4.2.2.2 Age of Respondents

Table 4.1 below indicates that the majority of respondents (50%) who participated in this study were 35 and 40 years of age, followed by the second highest respondents (45%) who were between the ages 40 and above, the study revealed that 95% of the total population sampled are elderly people, while only 5% accounts to the youth.

Table 4.1: Respondents per Age Group per Category

Age group & Category	Age groups			
	20-25 years	25-30 years	35-40 years	40 years and above
Municipal councillor	00	00	02	00
Municipal officials	00	02	02	00
Mining officials.	00	00	12	00
Retrenched employees.	00	00	03	17
NGO officials	00	00	01	01
Total	0 (0%)	2 (5%)	20 (50%)	18 (45%)

4.2.2.3 Race

In terms of the race variable, about 100% (40) of the respondents were Black. Analysis of the respondents interviewed shows that a total of 40 respondents were Black. This study affirms that majority of mine workers in the study area are Blacks. Luli (2015:1) asserts that mine owners preferred Black employees since they are in a weak position to accept whatever wage they could get, and White bad workers because they did not want to take orders, and too soft to do hard labour. The above literature gives the rationale behind the race variable in this study.

4.2.2.4 Position in the Household

In terms of position in the household, of the 40 respondents, heads of families account for 40% (16) of respondents, while wives/husbands account for 50% (20) and only 10% (4) was sons/daughters. This goes further to explain that the majority of respondents are head of the families within the area, that is, Ba-Phalaborwa Municipality. The analysis thus confirms the level of poverty that the large number of families in the research community is now faced with hence the need for the municipality and the local mining industries' interventions. Below is a table to illustrate the distribution of this frequency by position in the household.

Table 4.2: Position in the Household

Position in the Household	Frequency	Percentage
Head	16	40
Wife/Husband	20	50
Son/Daughter	04	10
Extended family	00	00
Total	40	100

4.2.2.5 Marital Status of Respondents

Table 4.3 below indicates that of the 40 respondents, 62,5% (25) are married, 15%(6) are single, 10% (4) are living together and same percentage are divorced, while 2,5%(1) is widowed. The table states clear the fact that the majority of respondents are elderly people and married. In accordance with both age and household position variables, it is indicative of the fact that most retrenched employees were elderly and married. One may not rule out that the loss of jobs will create mounting challenges to most of the affected families' socio-economic aspect. The table below illustrates the distribution.

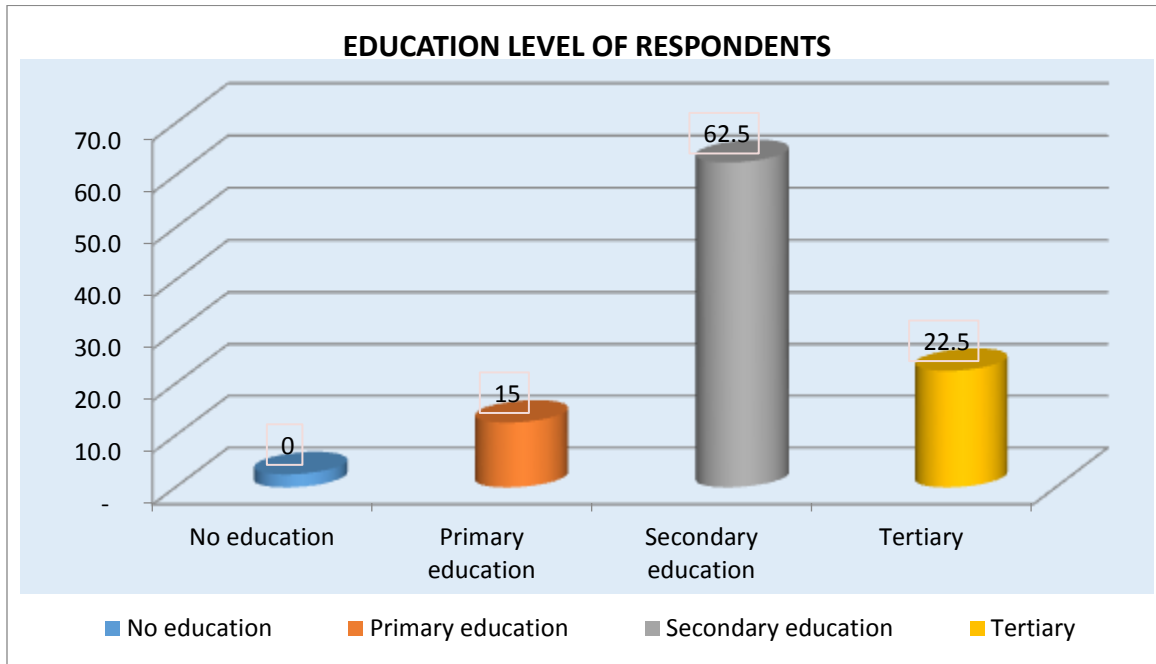
Table 4.3: Marital Status of Respondents

Marital Status of respondents	Frequency	Percentage
Single	06	15
Married	25	62.5
Living together	04	10
Divorced	04	10
Widowed	01	2.5
Total	40	100

4.2.2.6 Level of Education of Respondents

The bar graph 4.1 below indicates that the majority of respondents (at 62,5% (25)) had secondary education, while 22,5%(9) had diploma, certificate and degree and the least of them all was 15% (6) with primary education. Most of the respondents have high school education up to matric level. The level of education should influence what one earns although, in certain instances, this could mean employment with low income that cannot adequately support a household. Furthermore, an analysis of responses of the

respondents interviewed shows that most of the respondents had low educational levels, which pose a challenge to future respective employment, hence retrenchment.



Column chart 4.1: Levels of education of the respondents

4.2.2.7 Position of Respondents at Work

4.2.2.7.1 Retrenched employees

Table 4.4 indicates that the highest numbers of retrenched employees (at 45% (09)) was offering driving skills, followed by 30% (6) of the retrenched employees who rendered general work. Some other respondents (at 20% (4)) were rendering administration activities and only 5% (1) of the retrenched employees worked as a laboratory supervisor. These findings indicate that the level of education is one critical determinant of any prospective employee. Data analysis shows that respondents who were mostly affected by retrenchment occupied the lowest employee's categories in the mining industries.

Table 4.4: Position of Retrenched Employees

Position of retrenched employees	Frequency	Percentage
Driver(machine operator)	09	45%
General worker	06	30%
Administrator	04	20%
Laboratory supervisor	01	5%
Total	20	100%

4.2.2.7.2 Position of Mining officials

Table 4.5 shows that a total of 50% (6) of the mining officials were managers, followed by the Training and Development Officers, 34% (4) and 16 % (2) of the mining officials participated were superintendent. From the study, the researcher selected top officials for a reliable and sufficient information. The table below shows a total of twelve senior official respondents participated in the study.

Table 4.5: Position of Mining officials

Position of Mining officials	Frequency	Percentage
Human Resource Manager	3	25%
Manager Cooperate Affairs	3	25%
Superintendent	2	16%
Training and Development Officers	4	34%
Total	12	100%

4.2.2.8 Income Level before Retrenchment

It is evident from the table below that the majority of the retrenched employees (at 45%(9)) were earning an income below R5000, and the second largest category of the retrenched employees (at 30%(6)) were receiving an income below R4000, and some of the retrenched employees (25%(5)) earned an income above R5000. Therefore, it is

clear from the analysis above that the respondents' retrenchment packages were not sufficient enough to sustain their families and that would lead to absolute poverty at a later stage.

Table 4.6: Income Level of the Retrenched Employees

Income	Frequency	Percentage
Below R1000	00	00%
Between R1000-2000	00	00%
Between R2500-3500	06	30%
Between R3600-4500	09	45%
R4600 and more	05	25%
TOTAL	20	100%

4.2.2.9. Number of years of employment prior to retrenchment

From the table below, the analysis of the retrenched employees in years indicates that out of 20 of the retrenched employees, 70% (14) indicated that they worked for their respective mining companies for more than 9 years, and 30% (06) of the retrenched employees worked for not less than 6 years in their company. The majority of the affected employees had a longer service in their respective companies, which has a negative effect on their families, and thus difficult to find jobs elsewhere.

Table 4.7: Number of Years of employment

Number of Years of employment	Frequency	Percentage
Between 1-3 years	00	00%
Between 3-5 years	00	00%
Between 6-8 years	06	30%
9 years and more	14	70%
TOTAL	20	100%

4.3. A Detailed Analysis of the Empirical Data

The analysis of the data collected through the interview is reflected as follows:

4.3.1 Knowledge about Mine closure

Each respondent was asked whether they knew anything about mine closure. In terms of the awareness of the mine closure, many of the respondents admit to have known the process through their mining companies and mostly employees attached to the Human resource department.

The responses from the retrenched employees , municipal official and the NGO official in terms of awareness agreed with this mode of formal informative forums especially through stakeholder meetings in their community, that were considered strategic events for information dissemination.

The respondents from Foskor, Phalabora Mining Company and Sasol Nitro mines attested that they had knowledge of the mining operations and closure in the Ba-Phalaborwa Local Municipality. One individual from the retrenched employees attribute to the fact, they served in the mining industry for 12 years, with only STD 6 certificate. The respondents further attest that mining in their area serves as their main source of employment.

There are officials of the municipality who are sitting in the social investment arm of the Municipality to deal with social development. The respondent further stated that, every mining company in the area had to supply the Municipality with its social and labour plans, which indicates its lifespan.

Based on the information provided by the participants, the researcher found that mine closure in the Ba- Phalaborwa Local Municipality is known. It also implies that the majority of community members are employed in the mines or have relatives, friends or

neighbours working there working there. Therefore, all the respondents had an understanding about the social and economic impact of the mines in the community of Phalaborwa.

4.3.2 Causes of Mine Closure in the Research Communities

The respondent in this study included mining officials, retrenched employees and municipal officials to provide accurate information about the possible causes of mine closure.

Ba-Phalaborwa has four mining companies; three of the potential mining companies face depletion of resources and thereby facing closure. On this aspect, about 95% of the mining officials had a deeper knowledge and understanding of all the factors that caused mine closure in their affected mining companies. While only 5% of the mining officials had little knowledge about the problem.

4.3.2.1 Depletion of Resources

One of the respondents from the Palabora Mining Company (PMC) indicated that, “When the company starts to design a mining pit, various requirements are put in place such as how many employees the company will need, how much they will require to refine and smelt, how far the mining will reach its lifespan”. From the foregoing narration it is clear that, the sooner the mining pit reaches its life-span, the operations will have to be ceased, and the company will have to develop interventions. The respondent further stated that, at first, the mine was operating as an open cast, and as a strategic closure plan the mine decided on underground operations. The view above agrees with the statement in the Palabora Mining Company Annual report (2001) which stated that the production from the open pit continued throughout the year at a slower rate as compared to the year 2000, and sharply increased congestion forced a steady reduction of in output. In addition, the mining respondent attests that:

“...in 2002 April the mining ceased in the Open Pit, the company had to retrench 63 employees during 2004, the life-span of the pit shows a 10 years life cycle, so after every 10th year the mine will have to downscale, and the next retrenchment shall be experienced in 2014 due to the depletion of resources” (Human Resource Manager, aged 56).

The debate stimulated by the respondents from FOSKOR and SASOL Nitro demonstrated that they have a long service working for their mining companies and therefore the impact on market, that is the basic economic demand and supply, is the main cause of their mine closure. The respondents further indicated that their products, namely, phosphate and phosphoric acid are supplied to international markets, and when the supply is high they are compelled to curtail their prices while the production costs could not be lowered. This has led to the FOSKOR site closure and retrenchment took place during 2004 and the next retrenchment was envisaged to be taking place in 2014.

The respondent from SASOL Nitro offered the view that the company decided to close down its plant due to a continued decline of global and local phosphoric acid price, as well as increased feedstock prices and thereby affecting about 250 retrenched employees during 2009.

Despite the reasons given on the possible causes of mine closure, it is clear that the majority of the respondents based their arguments on their knowledge and observations. Therefore, the research has identified that mining companies are profit-making entities, and their existence depends mainly on the total production and the demand of their products than keeping employees. The study manifests that the decrease in the production output will then leave the mining companies with no option but to curtail labour force.

The research has identified policy implementation gaps by the mining companies in the Ba-Phalaborwa communities, since the only concern should be how mining industries have plans in place to mitigate such situations, so that the local mining communities as

well as mining employees are not negatively affected and live in poverty. In addition to that, it is clear given in sub-section 43 of the Mineral and Petroleum Resources Development Act no 28 of 2002 (MPRDA) that it is beyond mining companies to avoid mine closure, since mineral resources are not manmade but natural resources, but every mining company has a plan in place that stipulates its requirements during its life-span and when to cease its operation to any mining site or to the rest of the mining area.

4.3.3 The Retrenchment Process Followed by the Mining Companies

Were there any proper procedures in terms of retrenchment guidelines followed?

After interviewing the respondents from the mining industries, it was revealed that an agreeable consultative measure was made with the affected employees; one of the respondents from the Palabora Mining Company (PMC) further indicated that representatives from unions were also consulted.

In addition, the respondent highlighted that, it is the plight of their company to ensure proper retrenchment processes. The ideas of the respondents are resonant with those in *Implications* (2005:1) that retrenchment may sometimes be a necessary part of securing future employment for large sections of the workforce. However, the key to a good outcome lies in developing and implementing a retrenchment procedure that achieves the commercial aims of the process while minimizing the impact of job losses on workers and communities.

The respondent from FOSKOR mining company stated that, after realising that the company reached an agreement to retrench. The following approaches were indicated by the respondents for a fair retrenchment process:

- Identification of the affected positions;
- Checking on volunteers;
- They were compelled to look for people who are nearing pension; and

- The skills that are no longer required by the company.

The above view is consistent with (Van Der Schyff [2012:106] when reports that, according to FOSKOR Social Labour Plan, measures as well as any other alternatives suggested by employees or their representatives, will be considered as strategies to maintain effective manning levels: Management may consider allowing certain employees to volunteer for retrenchment. Employees over the normal retirement age will be retired by the company and employees will be re-trained where possible

According to the respondents from the Sasol Nitro, the process was unfairly conducted. The respondent further claimed that there were no consultative measures that took place, almost 97% of the respondent said:

“Our company was redundant, but to my surprise the company did not follow the relevant redundancy procedures. The company has been unfair to us, they knew by so doing the mine shall save lot of costs at an expense of the employees. The packages we are offered was not enough to sustain our families”.

In contrast of the above view, Sasol Nitro mining officials claimed that there were consultative procedures which took place, and in support of the above. The company said “it had begun negotiations with trade unions, businesses in Phalaborwa and local government” to mitigate the impact of a possible closure (Sasol nitrobidlive, 2009). Based on the information, it is apparent that employees were compromised by their mining company, and remained vulnerable to exploitation, and ultimately ended in absolute poverty at a later stage.

In reference to the respondents by the officials from the local municipality, the local municipality meet continuously with the management of the local mines, to seek ways of avoiding further retrenchments in Phalaborwa. The respondents further assert that they had little if no powers to persuade the local mines not to retrench. The respondents

advanced that it was the competency of the provincial and national levels of government in South Africa, through its mining policies that would guide on the proper procedures, and by enforcing measures in case of non-compliance

The results from the findings manifest that a significant number of the respondents believe that there has been proper retrenchment procedures, only a smaller number of respondents were not satisfied with the process, it is also important to know that when the Freedom Charter states that there shall be work and security, it did not envisage the creation of the economy that would survive by giving birth to an army of unemployed (Mutheiwana, 2009:66).

The researcher believes that if proper management of the retrenchment proceedings was in place, and the government ensure heavy penalty measures, the prevailing norm within the mining industries would improve. One may not rule out that both the municipality and the mines did not put more efforts, to assist the retrenched employees in the whole process.

4.3.4 Impact of Retrenchment

In this question the retrenched employees and the mining official were asked about the impact caused by retrenchment,

4.3.4.1 Retrenched Employees

Every retrenched employee agreed that retrenchment had a negative impact on their socio-economic conditions.

After interviewing the respondents, it was revealed that retrenched employees believe that the major impact of retrenchment is to meet the socio-economic demands.

Based on the biographical description of the study, about 50% of the retrenched employees are husbands and wives, and their age group above 40 accounts to 45% over and above that a secondary educational level of 62.5%. The analysis indicates

how frustrated the respondents are when they have to lose a job since they are bread winners.

When asked whether the packages they received were enough to sustain their families, about 98% of the respondents chose “No” as a response to the question. Only 2% chose “Yes” as an answer. Gribble and Miller (2009) assert that lack of work causes mounting feelings of despair and low self-esteem in the breadwinner, while economic crimes (including fraud, robbery and theft) will also increase as desperate people turn to illegal activities to make an income, various estimates indicates that a single mine-worker’s salary supports between seven and eleven dependants.

In considering the implication of the tax man, the retrenched employees indicated that the packages offered by the mines were severely taxed, and they remained with little money to sustain their families, or not enough start-up capital to finance any business for survival. The respondents also indicated that they were not advised or guided on financial management, and were thus vulnerable to financial exploitation, which lead to absolute poverty at a later stage.

The respondents further claimed that some of their children at universities and colleges had to drop out because they could no longer afford the fees. One of the respondents said:

“We were left with little money... therefore our children who are at universities had to stop their studies” (Maluleke, a 47 year old driver).

This quotation raises serious concern that the respondents’ packages were not enough for survival.

Loss of assets, such as housing as well as medical aid benefits, came out during interviews, where retrenched employees said that when mineworkers face retrenchment, they lose their right to housing and their health conditions become

compromised since they can no longer afford better medical services. However, their dwellings are also left abandoned and inhabited by illegal occupants. From their comments, the interviewer could see that they are over-burdened.

When asked what recommendation they would make with regard to retrenchment, all the respondents that is about 100% of the respondents were of the opinion that if powers for management and governance of the mines were decentralized to the local municipality, the rate of retrenchment and unemployment would have been controlled. It was also reported that retrenchments from the three mines affected mainly those who are nearing pension, and without relevant mining skills, therefore it is imperative for the local FET College to offer technical and mining courses that would give guarantees to a lifelong employment. A successful redeployment programme was undertaken to ensure that employees working in the pit were either redeployed elsewhere in the company or accepted (Palabora Mining Company Interim Report, 2002).

It is perceptible that the retrenched employees were not assisted on how to manage their funds, the majority of the respondents felt that the money was too little to survive their families. It was the responsibility of the mines to fortify that employees are been guided relevantly. And not to fall into the trap of mismanagement of funds, and ultimately ended in absolute poverty.

4.3.4.2 Mining Companies

The mining respondents offer the views that retrenchment in the mines is the most prominent process of keeping the mining operations costs down. The aim of wanting to know the implications after retrenchment was to make an analysis about any results that could exhibit positive effect to mitigate further retrenchment.

All the respondents from the mining companies were aware of the impact that retrenchment shall have prompted. The following challenges were affirmed by the respondent:

- The remaining staff's moral is negatively affected;
- The company often lose skilled employees, due to job insecurity;
- Curtailment also cause reduced co-operative attitudes and poor communication;
- Greater fear and distrust toward the employer; and
- Lowered performance goals.

The respondents that are attached to the human resource department confirm the aforesaid retrenchment challenges. They further echoed how negatively they were affected, socially and psychologically by the outcomes. One respondent from the FOSKOR mine alluded that:

"...we are receiving threatening calls by community members whose contracts are being terminated due to retrenchment. Really is also a traumatic experience, removing someone who is working very hard to feed the family from the payroll" (Phuti, aged 45 Human Resource Manager).

Mupezeni and Pfebeni (2013:294) postulate that individuals working in the human resource department are also exposed to some physical effects during the retrenchment period. When the outcome of those to be retrenched is clear and it is evident that there would be no reverse or further negotiations, human resource personnel reported that they usually encounter physical threats from those to be retrenched. The issue of de-motivated staff, low productivity, distrust, loss of skilled employees and not generating any profit also came out during interviews. For the aforesaid reasons, it is indispensable for the mine to find other ways of cost cutting costs than reducing the workforce, and poverty that have ravaged the Ba-Phalaborwa communities.

In considering the implication of the negative impact caused by retrenchment on the mining industries in the Ba-Phalaborwa Municipality, it is evident that retrenchment as a strategy utilised by the mine to curtail costs has an indirect effect to the entire mining company.

4.3.5 Challenges Faced by Ba-Phalaborwa Community Post-Mine Closure

What are the challenges faced by Ba-Phalaborwa communities after mine closure?

The reason for probing the effect on mine closure to the researched mining community, was to make findings on specific socio-economic aspects caused by the unexpected mine closure. It should be remembered that the scope of this study is not on the remediation of the environment but to investigate another aspect of mine closure which is the socio-economic impact of a mine closure on the surrounding community.

The debate stimulated by the respondents from the local municipality indicate that mining industries, in the area is overwhelmingly dominant, representing about 80% of gross geographical production together with other sectors such as government department, transport, accommodation, retail trade and agricultural sectors. The view is supported in the IDP (2009:9-10) which outlines that the economy in Ba-Phalaborwa is largely dependent on mining, posing a potential of future negative economic impact on both the socio-economic outlook of the area in case one of the two mines Palabora Mining Company or FOSKOR happens to close. It is thus a cause for concern to the local municipality since the two potential mines has scaled down.

About 75% of the respondents concurred with the fact that the mines result in an indirect impacts on local businesses, while only 25% of the respondents were not certain about such an effect. The respondents who agreed about their observation about contractors that offers services and supplies to the mines, taxis, hawkers and small businesses around the area are negatively affected by mine closure, the reason being loss of income and out-migration from the municipality. Nel *et al.* (2003:375), cited in Marais (2006:4), echoed that Job loss not only affects mine employees but also mine-supporting industries. An example is in KwaZulu-Natal (South Africa) where the closure

of coal mines has had a devastating impact on the secondary industries that produced iron and steel in Newcastle, and on the glass and cables industries in Dundee.

The responses from the retrenched employees interviewed indicate the fact that the mines had to scale down thus leading to an immediate unemployment problem. Not only directly to the retrenched employees, but the informal sector also suffers: with the closure of a mine, the more senior and skilled mine staff leave, which implies the loss of jobs for domestic. Houses are being left unoccupied and vandalised. One of the respondents said:

Most of our family members benefitted from casual and temporary jobs been offered by employees working from the mines, and they were able to survive their families. (Sono, a 52 year old Laboratory supervisor).

In considering the response by the official from the local municipality, It was apparent that the nature of skills requirements for mining operations has brought with it a migratory labour system which has brought various challenges on communities, including the spread of HIV/AIDS which is prevalent. The rate of HIV/ AIDS infections in the Ba-Phalaborwa communities is recorded amongst the highest within Limpopo Province mining towns. Bernice (2010) asserts that the other cause of poverty is the prevalent of HIV/AIDS.

It was further revealed from the interviews that, the largest percentage of the population in the municipal area depends mainly on grants, the view is supported by the Ba-Phalaborwa IDP (2015/2016:28) who asserts that the total number of people who depends on grants in the municipal area is 60 969 as compared to the 28958 in 2004. The statistics poses a threat to the municipality's economic status and the burden it is faced to improve the livelihood of their community members.

According to the NGO respondents, community members lack relevant skills to support the local economy or a pool of required skills by the mines. They further highlighted that

there is a need for the FET college in their area to diversify their curriculum and meet the skills that are pertinent to mining. The Sir Van Duncan FET College in the area seems not to assist the community members with skills that could unlock mining related job opportunities. Another aspect arises from the interview is the initiative by the Palabora Foundation in collaboration with the municipality of establishing Phelang Clinic Community Health Centre, to assist community members who are overblown by the pandemic. As regards to the report the rate is still escalating.

Analysis of the respondents interviewed shows that all the respondents' are aware of the pollution and ecological degradation that is caused by the mining activities in their area. The respondents from the municipality pointed out that the community is continuously threatened by hazards such as sulphur-dioxide, greenhouse gases, dust and water pollution. The municipal LED officer added to the fact that less has been done on policies that regulate mining activities. All that is done is compliance rather than implementation. The view is in counter to Palabora Mining Company report (2009:48) which contend that Palabora forming part of the Rio-Tinto group, is committed to reducing its impact on the environment in which it operates by managing its activities in an environmentally responsible manner. All the mining officials interviewed emphasized that each mining company appointed environmentalists who continuously monitor all the environmental threats which could be exposed to the community members.

The concern on the impact caused by mining dumps came out during the interviews by the municipality's LED officer, and it was further alluded that the municipality is situated adjacent to the Kruger National park, environmental challenges that are not monitored could ruin the economic opportunities that are in existence to the municipality and their local community. The respondent from the municipality also expressed the feeling that, even those who are in the agricultural sector are seriously stirred by poor water quality and shortages. It thus poses a threat to the small scale farming and thus has an indirect effect on the improved income.

In essence, it is perceptible from the responses that the socio-economic aspects that were pinpointed in the study mentioned above have a negative impact to the local communities, when the mines closed unexpectedly. Since the municipality is largely rural it requires a well-coordinated LED strategies, economic diversification and interventions that could unlock the municipalities' potential that could drive the economy apart from mining. The municipality is overshadowed by low income groups, who depend mainly on grants for survival, i.e., food and for paying the municipal services. For that reason, if the two potential local mines has to downscale means that properties have to be privatised and this, in turn the respective municipalities is increasingly at risk in that the payments for property tax and service now had to come from individuals/households and not from the mining companies.

Based on the information, the mining companies as well as the NGO in the research community aspire to improve the livelihood of the community members, but little has been done to forge partnership between the municipality and the aforesaid stakeholders. Monitoring and awareness to the community members about projects and the facilities established by the Palabora Foundation still need to be fuelled,i.e. Phelang Community Health Centre an initiative to improve health within the Ba-Phalaborwa community, which has an immense impact on employment and education.

4.3.6 Poverty Alleviation Strategies

The investigation was interested in the poverty alleviation strategies offered by mines and the municipality.

4.3.6.1 Poverty Alleviation Strategy Offered by Mines

The question was posed to the mining official and the retrenched employees as regarding the existing poverty alleviation projects offered by the mines.

According to the respondents from the mines as they respond to the questions, mining companies take pain to ensure that community projects are being established to address the unemployment and poverty in the area. They further advise on the following projects which they are engaged in:

- Agricultural farming;
- The Marula oil extraction project;
- Bricklaying;
- Street paving;
- Recycling project;
- Chicken breeding;
- Beads work and Pottery; and
- Electricity substation upgrade.

The respondents pointed the way the Palabora Foundation, as the local economic development structure, supported the initiatives by pursuing the programme of Palabora Mining Company (PMC). This sentiment is also shared in the Social and Labour Plan Guideline (2010/2011:4), which indicated that holders of the mining or production rights should ensure that they contribute towards the socio economic development of the areas in which they are operating, as well as the areas from which the majority of the workforce is sourced.

In reference to the respondents by the official from the Palabora Foundation, the Enterprise Development Officer, explained the role that Waterbok Vegetable Farming has played towards the poverty-stricken communities at Ga-Selwane and their neighbouring communities. The research findings have identified that since its inception in 2010, the project benefitted more than sixty (60) permanent workers, and about hundred and ten (110) seasonal workers are been employed over the main harvest seasons. But one may not preclude the possibility of the projects sustainability challenges: the fact that the beneficiaries were not trained on business management skills and lack of education, poses a threat to an unending business.



Figure 4.2: Beneficiaries working in Waterbok Agricultural farm in Ga-Selwane

The research has also revealed the Marula Oil Extraction project in Ba-Phalaborwa. However, from the five primary registered cooperatives that assist women in poor communities, such could not change the livelihoods of the members to the level of that of persons who are employed or with an income. It was clear that the stipend is inappreciable. Dependency syndrome came out during interviews, where the Palabora Foundation officer alluded that about 95% of the project beneficiaries cannot account for the running of this projects and lacks commitment. It was further established that most beneficiaries are elderly women who find it difficult to attract local target market, as well as its largest potential market in Italy.



Figure 4.3: Shows women preparing the nuts at Makhushane Marula Cooperative

In relation to the FOSKOR mining officials, the company has committed itself in the establishment of the Molomanama Bricklaying. The respondents, for example, pointed out the massive job opportunities expected from this project if properly managed. The mine, in partnership with the municipality procurement services, ensures that every construction project that requires the use of bricks are sourced from the projects. The respondent from the mining company were not pleased with the way the projects were conducted. One officer spearheading community projects indicated poor financial management, and squabbles among the members that led to some projects being disbanded. The challenges faced by these projects are not unique in community projects. Similarly, skills and level of education of the beneficiaries are stated as some of the challenges facing poverty alleviation projects (Tshitangoni, Okorie & Francis, 2010: 2375; and Xavier, Veiga & Van Zyl, 2014:3).

The issue of job creation handled with the spirit of the Expanded Public Works Programme came out during interviews. A respondent from the FOSKOR mine, the Co-operate Services Manager, stated that the mine took efforts in upgrading Bollanoto tourism hub and there habitation of the streets in Ba-Phalaborwa. The respondent further accentuated the role they were playing in empowering the communities through these projects.

Basically, from the findings, it is apparent that the mines initiated potential projects that required proper management and relevant skills support from the municipality as well as related institutions such as Limpopo Business Development Agency (LIBSA), Small Development Agency and so forth. Both the agencies and the municipality were to identify the needs and offer incubation before any project could start operating. For that reason, there was no indication of progress in any initiated projects.

Relative to the findings the municipality does not fully support the beneficiaries of these projects. On the one hand, the mining companies do not offer relevant skills to enhance project sustenance. Respondents were of the opinion that these projects should be

extended so that they become permanent, and by extension, so that the benefit does not cease to exist. It is thus apparent also that their wish is that the wage could increase to meet most of their day-to-day needs.

4.3.6.2 Poverty Alleviation Strategies Offered by the Municipality

The question was posed to the municipal official and the retrenched employees as regarding the existing poverty alleviation projects offered by the municipality. The respondents from the municipality interviewed pointed out that the municipality has major projects to be implemented aimed at unlocking and improving local socio-economic conditions of the Ba-Phalaborwa communities. The projects include:

- Flea market;
- Selwane Thusong Service Centre;
- The Memorial Precinct; and
- Maphutha Malatji Hawkers facilities.

From the interviews, it was revealed that about 90% of the community projects are initiatives by the community members to create jobs that could generate income for their families. Atkins and Milne (1995:1) explain that:

[Poverty alleviating project's] intention is to generate income to enable people to meet their own needs. In allusion to the response by the municipal LED manager, the majority of the projects are run by women in almost all the projects visited and it is thus proven that women are largely affected by poverty and unemployment, hence involvement in community projects.

In addition, the issue of acquired skills and abilities came out during interviews that 27% of the projects members wanted to gain skills such as sewing, curving, pottery and beadwork by practically being involved in the community projects. The respondents further claimed that because Ba-Phalaborwa is made up of rural areas, LED initiatives

should go further than creating employment and job opportunities, by improving the livelihoods and the living conditions of the communities.

The respondents from the municipality highlighted an attempt by the municipality to direct their focus to tourism. It was further added that tourism in the municipal area is enjoying a competitive advantage with tourism operators believing that the opportunity that Phalaborwa is a gateway that links to Mozambique represents a significant tourism advantage.

The LED manager expressed the intention to market the concept of Bed and Breakfast facilities and other tourism enterprises; game viewing and; an alternative entertainment town for ecotourism visitors. All these initiatives are meant to create employment opportunities for the residents. However, the majority of the retrenched employees claimed they are not aware of the initiatives facilitated by the municipality.

According to the Ba-Phalaborwa Local Economic Development Strategy, the municipality has appointed a service provider in 2006, Grant Thornton, to formulate a strategic Tourism Plan for its area. The study highlights that Limpopo Tourism and Parks (LTP), the Limpopo Department of Economic Development, Environment and Tourism (LEDET), the Mopani District Municipality (MDM), the Ba-Phalaborwa Local Municipality, the tourism private sector and the Non-Governmental Organisations (NGOs) should have a common vision for tourism in the Ba-Phalaborwa area. But, from the research findings, the gradual downscaling of mining activities and the knock-off effect this will have on other sectors of the Ba-Phalaborwa local economy, does not bode well for business tourism (Thornton, 2006:22).

Based on the arguments the municipality provides opportunities for expressing their forces by attracting investments through services, most projects are initiatives from the community members. Therefore, much still needs to be executed focusing on the mobilization of local resources; redistribution of resources; promotion of local creativity

and innovation; investment in human capital; the provision of technical assistance and training for self-employment; and business start-up and support for enterprise creation.

4.3.7 Assessment of the Effectiveness of Poverty Alleviation Strategies

Since the researcher was not just interested in the poverty alleviation strategies per se, but the effectiveness of these strategies in the research community, the research questions asked in order to assess the effectiveness of the poverty alleviation strategies were as follows:

- To what extent are poverty alleviating strategies effective in your community?
- How do you think the projects could be sustained?
- What benefit do the retrenched employees as well as the research community benefit from the project?

The respondents from the mining company indicated that about 70% of their community projects are not sustainable, due to the dependency syndrome upon the mining companies during the implementation by project members. The latter do not show dominion in the projects, they are just there to earn a living without making a contribution that could sustain the projects. The respondents further indicated that financial and managerial skills constitute a serious threat to the members. In reference to the report by the Phalabora Foundation, Zwino Consulting was approached through Techno serve an NGO that has a focus on the development of restituted farms. An assessment of the state of the Waterbok Farm at Ga-Selwane was completed on the 27th of February 2013 and it was found the farming project is well positioned to become commercially viable and to supply produce to supermarkets.

One official from the Palabora Foundation agreed that the success of these projects depends on the willingness of both the municipal and mining officials to capacitate projects members when projects are being implemented. One of the municipal official claimed that they offer SMME support, and interested individuals and entities in providing services.

The majority of the retrenched employees claimed they were not aware of the poverty alleviation projects offered by the municipality. As such, it is therefore evident that the IDP and LED forums rendered by the local municipality are not well fuelled.

The research findings above show that there are good community projects offered by both mining companies in the research community, as well as those which are offered by the municipality through procurement and community relieve programmes. However, participation or transparency is still of a challenge to the majority of the members. Thus members who are participating are not committing themselves to the projects, and that result in lack of sustenance by these projects. The Expanded Public Works Programmes (EPWP) is also a common and important policy-response to mass unemployment, although these are generally transitional programs that do not seek to create permanent jobs. In terms of the extent and effectiveness of poverty alleviation projects in the researched community, many respondents alluded to the fact that these projects were such a necessary relief given their community members dire poverty situation. And, emphatically, their situation was temporarily reversed by earning a wage for the period stipulated.

On one hand, the sustainability of the projects should be determined through an analysis based on monthly expenditures, profitability, project management, member participation, product demand, and member experience in running the projects. To nail down the above assertion, Phalaborwa, like other municipalities in South Africa, has been disadvantaged by the apartheid systems that led to the majority of the people in the area developing fewer skills; the education level that is poor; and with no proper infrastructure such as roads, telecommunication and reliable means of transport in the rural communities (LED, 2007: 8).

4.3.8 The Corporate Social Responsibility Offered by Mines

Mining officials as well as the officials from the NGO were asked whether they were involved in any Corporate Social Responsibility within their community, and to what

extent they were involved. What is encouraging is the role that is played by the three mines' social responsibilities initiatives through education and enterprise development.

The respondents from the Palabora Mining Company expressed that, the company facilitate social responsibility programmes through the Palabora Foundation to assist local communities within a 50km radius of Phalaborwa to become self-reliant through sustainable development programmes. The respondents, for example, pointed out that, in addition to their commitment to Local Economic Development, communities are benefitting from the two educational training centres, namely, Rixile and Leboneng located within Lulekani and Namakgale townships, which were established with the aim of offering educational programmes to the communities. The same sentiment was echoed by the respondents from the FOSKOR mine when propounded that the media Centre facility was built to enhance school learning resources in the Namakgale township as well as Infrastructure development in adopted schools, namely, Stanbury wherein classrooms have been ameliorated.

Furthermore, the aforesaid mine had joined forces with the Palabora Mining Company and Sasol Nitro to improve Grades 10 to 12 educational performances in mathematics, and the provision of bursaries by means of Protect programme. FOSKOR Social and Labour Plan (April 2013) concurs by indicating that the total number of students on the programme at any given point in time is therefore 180, and the total financial contribution from the two sponsors is almost R1m per annum, which is used for remuneration of tutors, equipment and books.

According to the respondents from the Palabora Foundation, enterprise development and training support is offered to assist 45 local entrepreneurs by way of operation/and or financial support across different sectors of the local economy.

From the respondent's views mines within the Ba-Phalaborwa communities are fully committed in the development and the fight against poverty. One the one hand, cohesion between this organisation, communities and the municipality still need to be revamped.

4.3.9 Future Plans for the Retrenchment of Mine Workers

The question was posed to the mining officials as well as the municipal officials, and the following questions were asked.

- ❖ Are there any future plans for the retrenchment of mine workers?
- ❖ How will those plans assist in the alleviation of poverty for the stricken communities?

The respondents from the Palabora Mining Company argued that the mine has committed itself to conduct a training needs assessment to determine additional needs for portable skills that are compatible to the needs of the sectors identified as growth sectors by the local municipality and the district. The respondents further assert that preference will be given, where possible, to retrenched employees when the company is in the position to recruit staff within a reasonable period. In view of that, the respondents claimed that about 63 of the retrenched employees were recalled in May 2003 after the new underground phase operation was introduced.

In reference to the Mineral and petroleum Resource Development Act (MPRDA), every mining company should ensure that they develop a closure plan which should address issues such as how to mitigate unemployment due to retrenchment should retrenchment become unavoidable. The respondent from the Foskor mine indicated that the mine will pursue initiatives to revamp the social and economic impact on individuals. Such initiatives include, amongst others, comprehensive self-employment training programmes that will be linked to the economic sectors that have been identified by the municipality; the review of the Integrated Development Plan (IDP) and Local Economic Development (LED) plans of the host and labour sending municipality areas, to identify projects that can be implemented to minimise the impact of job losses and to investigate alternative use of existing mine infrastructure for other economic activities.

According to respondents from the municipality, the new strategy has been adopted and stipulated in the 2009/10 IDP document that a decision has been taken to diversify the local economy from mining dependent to tourism-driven, given the potential tourism

holds for the area. The strategic intent of the municipality is to grow the economy and create employment through tourism. It was also reported that, in an attempt to expose young people of the Ba-Phalaborwa Local Municipality to mining, the local municipality has engaged the Department of Education to familiarise learners with technical careers. The municipality's executive committee and council of Ba-Phalaborwa Local Municipality have passed a resolution on September 2009 to convert Sir Val Duncan College into a specialised training college for artisans. This will assist learners to study relevant courses that will expose them to mining skills and ultimately make them employable to the local mines and other mines in the country

Regardless of the fact that at some point the mining companies should experience a depletion of resources, which in turn leads to low production and loss of massive jobs, it is, however, palpable that proactive measure should be taken into account to mitigate the impact on community sustainability in the event that mining activities are terminated. Therefore, from the responses, it is given that mitigation strategies are in place, the only challenge could be the implementation. From the above responses derived from semi-structured interviews, it is clear that the mines had future plans before the depletion of resources in the mining community. Signs of depletion were alluded to by different respondents in the interviews as a hint of concern for future unemployment in the area. The findings call for strategic plans towards tourism in order to alleviate economic stress and poverty in the Ba-Phalaborwa community.

4.4. Conclusion

This chapter presented the analysis of the research data collected from the research investigation. The research analysis in Section A was presented in the form of graphs, pie charts and table. Section B presented the analysis of the interviews with the respondents. The data were collected from the following respondents: the retrenched employees from the three mining companies; mining officials; municipal officials including councillors, as well as targeted officials attached to the NGO. The next chapter responds to the challenges faced by the retrenched employees in the Ba-Phalaborwa Municipality.

CHAPTER FIVE

SUMMARY OF FINDINGS AND RECOMMENDATIONS

5.1 Introduction

The main purpose of this study was to evaluate the effectiveness of the poverty alleviation strategies post mine closure in the Ba-Phalaborwa Municipality of the Limpopo Province. Chapter one presented background information, statement of the problem, aim of the study, objectives, research questions, significance of the study, and definition of key concepts and lastly, outline of the research report. Chapter Two reviewed relevant literature related to the research aim and objectives. Chapter Three outlined the methodology that the researcher followed in carrying out this research including, research design, study population, sampling, method and procedure of data collection, data analysis and the research ethics observed. Chapter four presented on the empirical data that the researcher has analysed. The results were categorised into the following main sections:

- Analysis of the group of respondents participated;
- Biographical description of the respondents; and
- Detailed analysis of the empirical data.

This chapter recaps research questions and objectives, consolidates the result findings, highlights the key recommendations and presents the limitations the researcher encountered in carrying out this study.

5.2 Research Questions Re-Stated

As stated in Chapter one, the study was aimed at answering the following research questions:

- What are the challenges faced by Ba-Phalaborwa communities after mine closure?
- To what extent does the retrenchment of the mining employees affect communities?
- To what extent are the poverty alleviation strategies benefiting the community?
- Which poverty alleviation strategies can be pursued for the poverty stricken community?

The main aim of restating the research questions is to ensure that the findings gathered in Chapter Four are summarised so as to make explicit recommendations. All the research questions have been fully answered through the data collected.

5.3 Research Objectives Re-Stated

As stated in Chapter One, the study was conducted guided by the following research objectives:

- To identify challenges faced by Ba- Phalaborwa communities after closure of the mines;
- To analyse the impact of retrenchment on the affected community members;
- To assess the effectiveness of poverty alleviation strategies in the Ba-Phalaborwa; and
- To suggest strategies that can be pursued for poverty alleviation post mine closure.

All the research objectives were met.

5.4 Summary of the Research Findings

The findings highlighted through the empirical study can be summarised as follows:

5.4.1 Summary of the Biographical Information

Of the 40 respondents who participated in the study, 67% ($n=27$) were male. The majority of the respondents 50 %($n=6$) who participated in this study were 35 and 40 years of age. Most of them 50 %($n=6$) were wives/husbands who were mostly 62, 5%($n=25$) married and had secondary education (at 62,5% ($n=25$)). Most of the retrenched employees 70% ($n=14$) indicated that they worked for their respective mining companies for more than 9 years who were earning an income below R5000 45 %($n=09$) by offering driving skills 45%($n=09$) were offering and were, while 50% ($n=06$) of the mining officials and the municipal officials were managers.

5.4.2 Challenges Faced by the Ba-Phalaborwa Communities after Mine Closure

Based on the research data presented in Chapter Four, challenges facing Ba-Phalaborwa communities after mine closure include the following:

- Closure of mines has led to socio-economic impacts such as job losses, divorce etc.;
- Municipality loses too much income on services;
- Environmental threats are also of a serious challenge; and
- The community loses investments offered by mining companies, through its social and labour plans as well as corporate social responsibilities.

The research analysis revealed that downscaling of mining operations due to the exhaustion of mineral resources and the global economic meltdown and the closure statement by the Palabora Mining Company(PMC)

The research analysis revealed that downscaling of mining operations due to the exhaustion of mineral resources and the global economic meltdown was the main causes of mine closure, and the presentation by the Palabora Mining Company (PMC) affirms the economic uncertainties and a bleak future for the local economic viability in Ba-Phalaborwa, which leads to negative consequences on the livelihoods of communities such as rising unemployment, relocation of many employees with mining related skills and local industries to other mining areas. These challenges require the municipal strategic interventions, since the rise in unemployment will have direct negative implication on the ability of consumers of municipal services to pay for services rendered (LED, 2007:6)

And furthermore the municipality is required to have concrete measures of stimulating the local economy, including the diversification of the local economy and the attraction of new investments into Ba-Phalaborwa (LED, 2007: 9), which is possible since as discussed in chapter two the location of the municipality at the gate of the Kruger National Park or the Great Limpopo Trans-frontier Park presents a strategic opportunity to diversify the economy into tourism. Chapter four of this study presented that, there were quite a number of Corporate Social Investments (CSI) initiatives that were reported on the mines' SLP and as such mine closure in the Ba-Phalaborwa threatens the municipality and their communities, directly and indirectly.

5.4.3 Impact of Retrenchment on the Affected Communities

As captured in Chapter Two, job losses (retrenchments) are a major social problem (Hanley *et al.*, 2003:40). Research data presented in Chapter 4 highlight the following impact of retrenchment on affected communities:

- Loss of income by the retrenched employees;
- Inability to pay school fees for their children in institutions of higher learning;
- Change in the living standard;
- Low self-esteem; and
- Inability to pay municipal services.

Since mining companies did find it difficult to carry out the task of informing individuals about the loss of a job, it is therefore necessary for companies to seek assistance from external service providers such as employee assistance programme (EAP), so that the retrenched employees could easily come out to terms with the retrenchment, and also providing training, alternative employment and for strength and motivation.

The above listed impacts are in resonance with the report on retrenchment in South Africa, 2009, states that lack of work causes mounting feelings of despair and low self-

esteem in the breadwinner, while Economic crimes (including fraud, robbery and theft) will also increase as desperate people turn to illegal activities to make an income.

Mining has in essence been positively used as channel for accumulation of assets, and migrant workers were able to provide a diverse source of economic livelihood for themselves and their families. And when the mine has to downsize the workforce, community members become frustrated.

Apart from the above view , findings from this study revealed that a majority of the affected employees were either unskilled or semi-skilled, characterised by low levels of formal education with some lacking even the basics of formal education. According to (Phillip, 1995),”although at retrenchment many have acquired some mining related skills, such skills have rarely been transferable to alternative employment or entrepreneurship initiatives”.

5.4.4 Effectiveness of Poverty Alleviation Strategy

The data presented in Chapter 4 show that there were various poverty alleviation strategies implemented in the affected communities. These are summarised as follows:

- Waterbok farm, as one of the poverty alleviation projects, was found to be well positioned, after an assessment by one of the NGOs;
- In addition, five Marula cooperatives were successfully established among traditional areas in the area, with a total number of members escalated from 53 to 107 since 2010; and
- Most poverty alleviation projects offered by the municipality, such as Malomanama Bricklaying, and Expanded Public Works programmes, are found to be benefitting the community, but, however, the research revealed that there are entrepreneurial and financial skills support that needs to be improved.

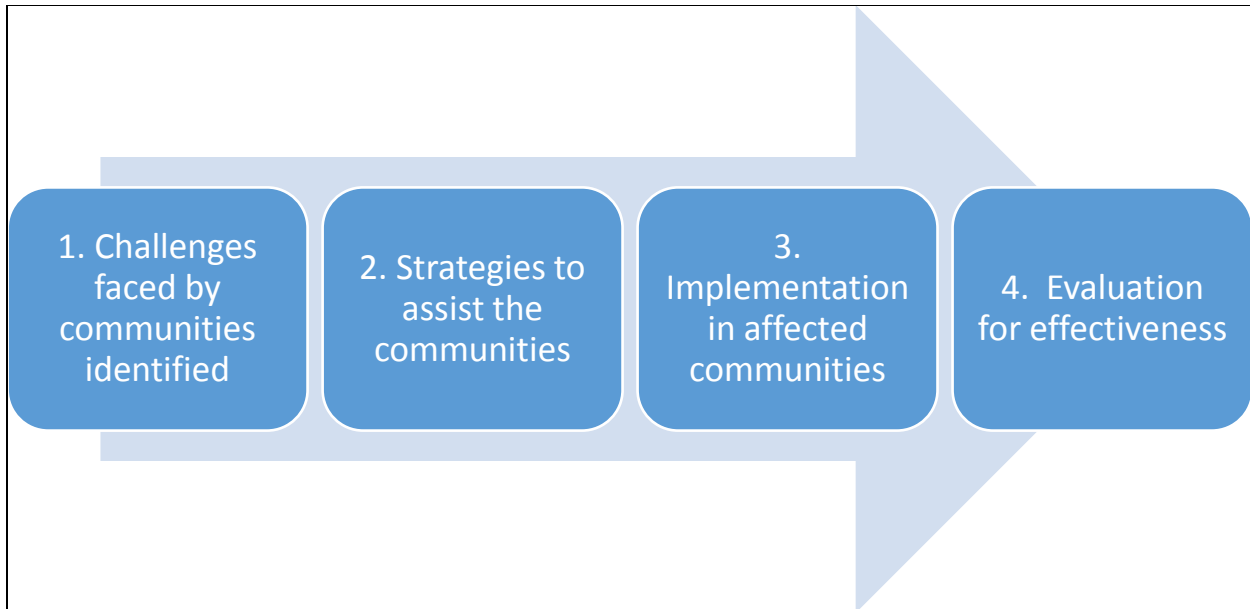
The key question that arises relates to the above strategies: Are these strategies effective for poverty alleviation? The answer is somehow mixed as the research data in

Chapter 4 demonstrate. The strategies were found to have been effective while on other hand, as stated by Tshitangoni *et al.* (2010: 2375) and Xavier *et al.* (2014:3), some of the strategies were found not been effective as some of the project members still lack training programmes on various skills that suits their educational level; community projects depend mainly on the mining companies, they do not have ownership on the projects; and mentorship and incubation by relevant NGOs such as Limpopo Business Support Agency (LIBSA) and other related stakeholders are still a challenge, most projects sustainability is still at stake.

Lack of appropriate up-markets for the produced products also reduced the possibility of most of the projects to break-even and subsequently thrives in the competitive business industry. The environments in which the majority of these projects are operating are rural and township setting where the buying power is not sufficient to increase the financial viability of the established projects. Another major challenge revealed during the research is the dependency by the members of the projects, always relying on the project funders, such as the Phalabora Foundation when running these projects. The finding affirms the above view to be emanating from lack of management skills, by the members operating those projects.

5.4.5 Guidelines for Poverty Alleviation Post-Mine Closure

Based on the summarised research data, the research would present the following graphical guidelines for poverty alleviation post mine closure.



Source: Author's contribution

Figure 5.1: Post-mine closure guidelines

5.5 Recommendations

Based on the key findings for the study, the researcher makes the following recommendations:

5.5.1 Skills Development and Training for Retrenched Employees

Skills development (Ogundele, Akingbade & Akinlabi, and 2012:149) and training (Tsado, Ojo & Ajayi, 2014:157) have been found to be effective in poverty alleviation programmes. The research analysis revealed that the interviewed retrenched employees level of education and skills are very low, The retrenched employees were supposed to be taken through a series of training programmes that suit their educational level. The researcher recommends that mining companies should invest much on training skills and portable skills that could assist retrenched employees find employment after mine closure. The researcher further recommends that Unions should also have plans in place to offer alternative means during massive job losses by their members.

5.5.2 Unlock Investments for Indigenous Resource Exploitation

The economy of the Ba-Phalaborwa municipal area is highly dependent on the mining sector, and the researcher advocates that the municipality should create an enabling environment that would attract investments, through its available resources, for example, Marula, Mopani and its wild-life tourism, to diversify economic activities, which at the same time would create job opportunities for the communities.

The above view is in resonance with that of Hanley *et al.* (2003:40), who state that standard policy response to the high unemployment that can arise from industrial restructuring is to foster the diversification of the local economy through the creation of jobs outside of the impacted sector, and to seek to improve the match between the available jobs and workers' skills through various active labour market policies.

5.5.3 Alignment of the Government and the Private Sector

Poverty alleviation projects could be offered by private sectors and mining companies through social and labour plans. Unless stakeholders are committed and capable of implementing them, all the projects will likely to remain unresponsive initiatives. The local municipality has all the powers to engage all stakeholders within its jurisdiction and communities to shape social and economic development of its area. This will persuade feedback and monitoring community projects that are always left half done and unattended to.

One of the main problems facing local government is that there is too much reliance by local municipalities on Social and Labour Plans (SLPs), because there are few investors in the rural areas to address local economic development challenge (Action Aid, 2008). Hence, there is a continuous increase of migrant labour into mining towns (DME, 2009), which increases the pressure on the local municipalities to provide basic services. In most cases, the local municipalities under which mining companies operate are under-resourced and lack the skills and capacity to provide the necessary assistance to

ensure the effective implementation of the local economic development initiatives planned for in their IDPs (DME, 2009)

The mining companies are faced with challenges to ensure development in poor communities and areas which are affected by their mining activities. Because of a lack of resources, local economic development initiatives offered by the mines through SLPs are sometimes not being fully utilized by local communities (Rogerson, 2011). The other problem is of course the issue a lack of knowledge and leadership and the existence of “hidden agendas” when it comes to community development, which affects the alignment and implementation of development initiatives

5.5.4 Marketing and Procurement Processes

As part of empowerment and keeping community projects sustainable, it is imperative, for both the government and private sectors funding these community projects, to prioritize procuring their products and exposing these projects to commercial markets, thus promoting their products subsequently. It is the responsibility of the municipality to raise awareness of the registration of tender businesses for the stricken communities.

The initial perception from members when establishing community projects was based on believing that there would be guaranteed income for participants. As a result, the projects adopted charity characteristics of expecting continued financial support set in most of the interviewed projects without proper marketing, management, quality assurance and market research being conducted. Most projects therefore found it difficult to maximize profits due to the market not responding positively to their products.

These recommendations are consistent with what other studies have noted in terms of poverty alleviation programme in a study conducted at Ba-Phalaborwa Municipality, Mopani District of Limpopo Province.

5.5.5 Beneficiation

Beneficiation entails the transformation of a mineral or a combination of raw minerals to a higher value product, which can either be consumed locally or exported through high-level intensive labour and capital activities (DMR, 2011). Currently, very little beneficiation is done in South Africa and Ba-Phalaborwa not an exception, this has implications for the levels of job creation in the rural areas where mining is taking place. If beneficiation were to take place in the research community, with such a mining potential producing this could promote sustainable development initiatives which strive to get the balance right between environmental protection, economic growth and social equity, mining communities such as Ba-Phalaborwa would find solution to diverse its dependency in the mining activities. The researched mining community requires skills and knowledge to bridge the current barrier to beneficiation for an improved and strategic economic opportunity.

5.6 Areas for Future Research

The researcher believes that a mixed research approach involving both quantitative and qualitative research methods could be ideal for a study of this nature. Future studies should attempt to incorporate these instruments in investigating issues of post mining closure.

5.7 Limitations of the Study

The present study, just like any other empirical studies, has limitations. In particular the key limitations are as follows:

- The use of a case study is a disadvantage as results cannot be generalised to the wider population (Zainal, 2007:5);
- The nature of respondents – since the key respondents are retrenched employees, it was very difficult to trace the majority of them;
- The use of an interview – with interviews, one has to do an in-depth study but would not be able to focus on a large scale research.

5.8 Conclusion

This chapter has outlined the research overview, summarised the results, and recommendations were made. Overall, the research revealed through literature that there is little evidence about the effectiveness of many poverty alleviation strategies implemented in the Ba-Phalaborwa community. While reflecting on the objectives, the study required to evaluate the role played by the local mines and the Ba-Phalaborwa Municipality towards the impact that could affect local communities as well as the affected employees post mine closure.

The study also revealed that mining companies should always have future plans should they experience any depletion of resources; such the mining communities could not suffer due to massive job loss.

At the same time, it is imperative for the municipality to unlock economic activities such as tourism in the research community; forge for cohesion between mining companies in their area, skills training institutions such as LIBSA and so forth; and encourages participation by their community members through active participation in the Integrated and Development Plan (IDP) processes. Regardless of the fact that at some point the mining companies should experience a depletion of resources, which in turn leads to low production and loss of massive jobs, it is palpable that future plans are in place to mitigate such situations.

It is hoped that the recommendations of this study will enable the communities, municipalities and mining companies to work together and find amicable ways to create job opportunities within their area.

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ANNEXURES

ANNEXURE A: LETTER TO THE PARTICIPANTS

UNIT B/2/1
SUNSET LODGE
PHALABORWA
1390

Dear Sir/ Madam

I am Rakgoale NT, a registered student of the University of Limpopo, Turfloop Graduate School of Leadership. This is part of my research for Master of Development Degree on the topic titled “An Evaluation of Poverty Alleviation Strategies: Post Mining Closure: A Case Study of Ba-Phalaborwa Municipality of Mopani District”. The purpose of the study is to evaluate the strategies that can be implemented to combat poverty among Ba-Phalaborwa communities post mine closure, and to discuss your views and experiences of poverty within your community.

With your permission, the session will be audio-recorded which will enable the researcher to represent more accurately the outcomes of the discussion. Participants are guaranteed total confidentiality with regard to anything they say, do or write in relation to the study.

You may at any time, withdraw from the study or refuse to answer any question. The research findings may be used in presentations and publications. If you require any further information or explanation, please contact me at 082 562 3019.

Thanks

Rakgoale NT

ANNEXURE B: INTERVIEWS OF THE PARTICIPANTS

1. RETRENCHED EMPLOYEES

TOPIC: AN EVALUATION OF POVERTY ALLEVIATION STRATEGIES: POST MINING CLOSURE A CASE STUDY OF BA-PHALABORWA MUNICIPALITY OF MOPANI DISTRICT

Administrative section: _____

Questionnaire number: _____

Name and surname of respondent: _____

Contact details: _____

Location/site: _____

SECTION A: DEMOGRAPHIC PROFILE OF RESPONDENTS

TICK THE APPROPRIATE BOX PROVIDED

1. Gender

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
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2. Age of respondent

Between 20-25	1	<input type="checkbox"/>
Between 25-30years	2	<input type="checkbox"/>
Between 35-40 years	3	<input type="checkbox"/>
Above 40 years	4	<input type="checkbox"/>

3. Race

Black	1	
White	2	
Coloured	3	
Indian	4	
Other (Specify)		

4 What is your position in the household?

Head of the household (HHH)	1	
Wife/Husband	2	
Son/Daughter	3	
Grand Parent	4	

5. How many dependents do you have

Between 1-2	1	
Between 3-5	2	
Between 6-8	3	
More than 8	4	
None	5	

6. Marital Status

Single	1	
Married	2	
Living together	3	
Separated	4	
Divorced	5	
Widowed	6	

7. What is your level of education?

No education	1	
Primary education	2	
Secondary education	3	
Diploma/Degree	4	
Postgraduate diploma/degree	5	

8. What was your position with your employer?

Administrator	1	
Underground	2	
Technician	3	
Machine operator	4	

Other (specify)	5	
------------------	---	--

9. What was the level of income?

Below	R1000	
1		
Between	R 1000-2000	
2		
Between	R 2500- 3500	
3		
Between	R3600-4500	
4		
R4600	and	more
5		

10. How long have you been employed?

Less than a year	1
Between 1-3 years	2
Between 3 - 5 years	3
Between 6- 8 years	4
9 years and more	5

1. Do you know anything about mine closure?

Yes or No

2. Are there any challenges that you are faced with after mining closure?

Yes or No

If yes, list those challenges

3. Did the challenges affect you?

Yes or No

If yes, please explain how your lives in the community were affected?

4. Is your employer compensating you fairly? Explain

5. Do you know of reasons that led to your retrenchment?

Yes or No

6. Did the employer follow the retrenchment policies as stipulated by labour law?
Explain.

7. How many years were you retrenched? Explain.

8. Do you think retrenchment could have been prevented? Elaborate.

9. Did the employer allow you to make suggestions about the retrenchment?

Yes or No

If yes explain in details.

10. Is your employer compensating you fairly? Explain.

11. Are you involved in any poverty alleviation projects in your community offered by the municipality?

Yes or No

If yes, describe the nature of the project.

10. Are you participating as a full-time or part-time employee in the above mentioned project?
11. Is the income generated adequate to raise the family? Explain.
12. Have you been contracted by mines to assist on a contractual basis?
13. Are you aware of other employees who were employed? Explain
14. In your opinion what strategies could municipality apply to assist the affected community? Elaborate

INTERVIEW GUIDE

1. Are you currently employed?

Yes or No

If no, for how long are unemployed since retrenchment?

2. What assets did you manage to accumulate?
3. What training or skills have you acquired?
4. How do you apply those skills in any sector?

2. MINING OFFICIALS

TOPIC: AN EVALUATION OF POVERTY ALLEVIATION STRATEGIES: POST MINING
CLOSURE A CASE STUDY OF BA-PHALABORWA MUNICIPALITY OF
MOPANI DISTRICT

Administrative section: _____

Questionnaire number: _____

Contact Details: _____

Location/site: _____

SECTION A: DEMOGRAPHIC PROFILE OF RESPONDENTS

TICK THE APPROPRIATE BOX PROVIDED

3. Gender

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
------	--------------------------	--------	--------------------------

4. Age of respondent

Between 20-25	1	<input type="checkbox"/>
Between 25-30years	2	<input type="checkbox"/>
Between 35-40 years	3	<input type="checkbox"/>
Above 40 years	4	<input type="checkbox"/>

5. Race

Black	1	<input type="checkbox"/>
White	2	<input type="checkbox"/>

Coloured	3	
Indian	4	
Other (Specify)		

5 What is your position in the household?

Head of the household (HHH)	1	
Wife/Husband	2	
Son/Daughter	3	
Grand Parent	4	

5. Marital Status

Single	1	
Married	2	
Living together	3	
Separated	4	
Divorced	5	
Widowed	6	

7. What is your level of education?

No education	1	
--------------	---	--

Primary education	2	
Secondary education	3	
Diploma/Degree	4	
Postgraduate diploma/degree	5	

8. What is your position with your employer?

Human Resource Manager 1	
Manager Cooperate Affairs 2	
Superintendent 3	
Training and Development Officer 4	

1. Do you know anything about the mining closure?

Yes or No

If yes, please explain what the causes of the closure were

2. Are there any challenges caused by the mine closure in the Ba-Phalaborwa communities?

Yes or No

If yes, list those challenges:

3. Were there any proper procedures in terms of retrenchment guidelines followed?

Elaborate on how retrenchment process did unfold?

4. Does the compensation meet with clause 20 of the main collective agreement?

Explain how it was fairly undertaken?

5. Are there any future plans for the Retrenchment of mine workers?

Yes or No

If yes, what are they?

6. How will those plans assist in the alleviation of poverty for the stricken communities?

7. Is there any possibility to recruit the retrenched employees should the employer recruit again?

Yes or No

If yes, what will be the criteria for re-employment?

8. Are you involved in any Corporate Social Responsibility (CSR) activities within the community?

Yes or No

If yes, what are they?

10. Are there any comprehensive self-employment training programmes linked to the municipality's economic sector?

Yes or No

If yes, what are those?

11. How do self-employment training programmes assist the retrenched employees?

Please explain.

12. Is there enough support by the mining companies of the Local Economic Development (LED) initiatives? Give details in question.

3. MUNICIPAL OFFICIALS

TOPIC: AN EVALUATION OF POVERTY ALLEVIATION STRATEGIES: POST MINING CLOSURE A CASE STUDY OF BA-PHALABORWA MUNICIPALITY OF MOPANI DISTRICT.

Administrative section: _____

Questionnaire number: _____

Name and surname of respondent: _____

Contact details: _____

Location/site: _____

SECTION A: DEMOGRAPHIC PROFILE OF RESPONDENTS

TICK THE APPROPRIATE BOX PROVIDED

1. Gender

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
------	--------------------------	--------	--------------------------

2. Age of respondent

Between 20-25	1	<input type="checkbox"/>
Between 25-30years	2	<input type="checkbox"/>
Between 35-40 years	3	<input type="checkbox"/>
Above 40 years	4	<input type="checkbox"/>

3. Race

Black	1	<input type="checkbox"/>
-------	---	--------------------------

White	2	
Coloured	3	
Indian	4	
Other (Specify)		

4. What is your position in the household?

Head of the household (HHH)	1	
Wife/Husband	2	
Son/Daughter	3	
Grand Parent	4	

5. Marital Status

Single	1	
Married	2	
Living together	3	
Separated	4	
Divorced	5	
Widowed	6	

6. What is your level of education?

No education	1	
Primary education	2	
Secondary education	3	
Diploma/Degree	4	
Postgraduate diploma/degree	5	

8. What is your position with your employer?

Municipal Manager	1	
LED Manager	2	
Councillor	3	

1. Do you know anything about mine closure?

Yes or No

If yes, do you have retrenchment policies for mining companies within your municipality?

2. Do you know of any individuals affected as a result of mine closure?

Yes or No

3. What have you observed in your community since the retrenchment of mining employees?

4. The municipality provides assistance to the retrenched mine workers? Please give explanation.

5. Is the assistance enough to curb poverty to the affected individuals?

Yes or No

If no, what do you suggest the municipality should be doing?

6. Are there any poverty alleviation strategies offered by the municipality?

Yes or No

If yes, list them

7. To what extent is the poverty alleviating strategies effective in your community?

Elaborate

8. What benefit do retrenched employees derive from the projects?

9. were community members as well as retrenched mining employees involved in the rolling out of poverty alleviation strategies?

Yes or No

If yes, how were they involved?

Did they serve as steering committees?

10. What kind of support do you provide to the existing project? Please explain.

11. Are there any challenges faced by the municipality that could hinder the effectiveness of the existing projects? Please give explanation.

12. How do you think the projects could be sustained? Give explanation.

MM Mohlake
Reakgona Disability Centre
University of Limpopo
Turfloop Campus
Private Bag x 1106
Sovenga
0727

08 August 2016

To Whom It May Concern

EDITING CONFIRMATION: Ms NT Rakgoale's Study

This letter is meant to acknowledge that I, MM Mohlake, as a professional editor, have meticulously edited the Master's degree dissertation of Ms Rakgoale Nkakareng Thermocious entitled "Evaluation of Strategies to Combat Poverty among Communities Post Mine Closure: Case of the Ba-Phalaborwa Municipality in Limpopo Province".

Thus I confirm that the readability of the work in question is of a high standard.

For any related query/comment please do contact me.

Regards

A handwritten signature in purple ink, appearing to read 'M. Mohlake', with a stylized flourish at the end.

Mr Mosimaneotsile M. Mohlake
(015) 268 3002 (Office)
072 1944 452 (Mobile)
mosimaneotsile.mohlake@ul.ac.za (Email)