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FACULTY OF ARTS

DEPARTMENT OF DEVELOPMENT STUDIES

*An assessment of the Impact of Mining on the
Environmental Rights in Zimbabwe: The Case of
Mapanzure in Zvishavane, Midlands Province 2009 -2017*

By

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*This dissertation is submitted in partial fulfilment of the requirements of the
Bachelor of Arts Honors Degree in Development Studies at Midlands State
University*

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MIDLANDS STATE UNIVERSITY

Approval Form

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DEDICATION

I dedicate this project to God Almighty, my creator, my strong pillar, my source of inspiration, wisdom, knowledge and understanding.

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First and foremost, I would like to thank God for the love, guidance and protection. I would like to express my sincere gratitude to Dr C. Munhande, my project supervisor for his constructive comments and for devoting his most precious time and will just for me, I feel deeply indebted to him for the successful completion of this project. Utmost thanks go to Mr and Mrs Munyoka for their resolute financial support throughout the journey, without their steady confidence in facilitating; this research would not have been a success. I acknowledge the people of Mapanzure area who helped me during my fieldwork in Zvishavane.

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ABSTRACT

This study examined the impact of mining on the environmental rights of the people of the Mapanzure area in Zvishavane. Zvishavane district is located along the great Dyke belt, which is a hub to many valuable minerals such as chrome, diamonds, platinum and gold. The abundance of mineral deposits has attracted many mining companies to establish their operations in the area. Illegal artisanal miners are also dominant in the area. Mapanzure community is one of the areas that have been mostly impacted by mining in Zvishavane. Mining activities have violated different environmental rights of the people such as the right to clean and safe water, the right to a safe and sustainable environment and the right to environmental information. A sample of forty respondents was selected using purposive sampling. The target research population comprised of the local community members, local traditional leadership, government officials as well as the miners themselves. The data were collected through interviews, participant observation and questionnaires. The results revealed that mining is indeed infringed the fundamental rights of the people as evidenced by the violation of the right to a safe and sustainable environment, right to environmental information and ecological degradation. Many people lost their means of living due to land degradation and depletion of grazing land as the livelihoods of most locals were dependant on agriculture and livestock.

ACRONYMS

ACHPR	African Charter on Human and Peoples Rights
CSOs	Civil Society Organisations
CSR	Corporate Social Responsibility
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
GDP	Gross Domestic product
SDGs	Sustainable Development Goals
UNEP	United Nations Environmental Program
UNGP	United Nation Guiding Principles
UNHRC	United Nations Human Rights Council
ZCSOT	Zvishavane Community Share Ownership Trusts
ZELA	Zimbabwe Environmental lawyers Association
ZHRC	Zimbabwe Human Rights Commission
ZIMASCO	Zimbabwe Mining and Steel Company
ZINWA	Zimbabwe National Water Authority

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CHAPTER ONE

THE PROBLEM AND ITS SETTING

Introduction

To attain economic development, many countries in the world have resorted to several activities of exploiting natural resources. Mining is one of the activities undertaken to exploit the mineral resources from the earth's surface. Subsequently, mining is a significant economic activity which has the potential of contributing to the economic development of the countries with abundant resource. For instance, in Latin American countries, mining activities have contributed progressively to economic growth. In Peru, mining accounts for 20 % of the economy in 2016 (Economic Commission for Latin America, 2017). In Asian, India is one of the countries that have advanced economically through mining. Mining in India is accountable for 13 % of the economy (OECD, 2017). In Africa one of the continent endowed with abundant mineral deposits, all the types of mining have occurred. In South Africa, mining contributed 27 % of the GDP by 2015 through the exportation of gold (Gwenero, 2015). In Mozambique, only the small scale mining sector employed a total of 60 000 workers (Swanepoel, 2016).

In Zimbabwe, the mining sector played a significant role in the economy of the country from the pre-colonial period to date. After the rapid decline of the agricultural sector in 2000, owing to the failure of the Fast Track Land Reform Program; Zimbabwe shifted from being an agro-based economy to a mining driven economy. Mining was resorted to as an alternative to escape the economic hardships indicated by an increase in the cost of living, hyperinflation and unemployment. Over the past fifteen years, Zimbabwe has been successful in attracting investors in the mining industry. As of 2012 Zimbabwe had 4000 chromite mining companies, most of them in Zvishavane and 46% of them owned by indigenous

Zimbabweans (Chamber of Mines, 2013). These miners are extracting gold, diamonds, chrome, platinum and nickel. The mining industry in Zimbabwe has contributed 50% of the real Gross Domestic Product of the country which is a positive impact in the economy of the country (Chamber of Mines, 2009).

However, despite the contribution of mining to the economy of Zimbabwe through increased investment, mining has caused many damages to the local communities in the form of great environmental, health and social costs. One of the provinces severely affected by mining in Zimbabwe is Zvishavane because of the presence of different minerals in the Great Dyke belt. Infact the negative impacts of mining have outweighed the positive impacts with regards to the challenges faced by the people in Mapanzure community. Though, many researches have been conducted on the impact of mining on the local communities. The researchers however focused more on the socio-economic impacts of mining ignoring the impact that mining has had on the environmental rights of the people.

Therefore, this study is concerned with weighing the extent to which mining has impacted on the environmental rights of the people in Mapanzure area. What is daunting is that many pieces of international and domestic legislation on ecology and environmental rights protection exist in the country. This study seeks to identify the extent of the breach of such rights as well as efforts that mining companies are enforcing to mitigate the impacts of their activities on environmental rights of the communities. The chapter provides the background to the study, the statement of the problem, the study objectives and questions, the significance of the study, limitations and delimitations, ethics as well as the concepts framing the study.

Background to the Study

In many parts of the world, mining activities are important in improving the economies of countries. Both the formal and the informal sector of mining played a crucial role in creating employment, raising incomes and alleviating poverty. The formal sector of mining includes the registered mining companies both small scale and large scale mining entities. It is this sector of mining that directly contributes to the nation's budget through taxes levied by government. The formal sector of mining contributed 45% to the global GDP (Adomako, 2006). Taking a look at the developed world, the contribution of mining varies significantly, from 3 to 25 per cent of total government revenues. In Canada the mining industry produces 18.9 % of the exports. In China mining has been responsible for 10% of trade with the world (Brink, 2015). Brant (2014) noted that in China the formal sector of mining contributed \$170 billion to the country through trade with countries in Africa in the year 2013. This illustrates the importance of the contribution of the formal segment of mining to the economy despite some of its impact on the society.

The informal sector of mining comprises mostly of illegal mining operators such as the small scale artisanal miners who usually operate without licenses. The small scale miners in the informal sector usually cause a lot of damage due to the use of rudimentary techniques of mining (Brant, 2014). Small scale miners lack capital required for establishing improved mining sites and obtaining mining concessions from the government hence they take very little caution on environmental protection (World Bank, 2014). Small scale mining operations are mostly practiced in the less developed countries in Latin America, Asia and Africa. Some of the countries in the less developed affected by the activities of the illegal miners include Burkina Faso with over 100 000 people working in this mining sector. In Ecuador more than 92 people are participating in the informal sector (Dias, 2010). The sector has improved the

lives of many people, but on the contrary the challenges have been more as it causes health and ecological problems.

As a result of economic down turns in Latin America in the past decade. Many participants entered the mining informal sector to earn a living. Large settlements of small-scale and informal miners appeared in countries such as Bolivia, Brazil, Colombia, Peru and Venezuela (World Bank, 2014) Countries in the region, however, have not been successful in regulating or even prohibit small-scale mining. Poor management of mining rights resulted in many social conflicts on as everyone wants to benefit from the natural resources. All the impacts caused by mining are having adverse implications on the environmental rights of the people.

Similarly, many economies of African countries are sustained by the mining sector. Mbedi (2002) noted that South Africa has large gold deposits and the country's economy is heavily supported by mining as its biggest earner of foreign currency. Gold mining in the Republic of South Africa has contributed about 27.4% revenue and the sector has employed about 56% of South Africa's workforce. Likewise, for countries like Botswana, Zambia and Ghana, mining have been the backbone of their economies too. In Ghana, for instance, mining contributed 42% to the country's foreign earner (Grubaugh, 2002). The figures reasonably indicated that undoubtedly the mining sector has contributed immensely towards economic growth in many African countries.

In Zvishavane, many mining activities are taking place, ranging from the formal to the informal sector as the province is endowed with many mineral deposits. The province is located along the Great Dyke belt, which is the hub of several minerals such as gold, chrome, diamonds, ferrochrome and platinum. Many large scale mining companies have established

operations in Zvishavane. The companies include Mimosa, Murowa diamonds and Zimplats. The mining operations in Zvishavane increased during the eve of the country's economic crisis around 2000. During this period not only large scale mining companies vied for resources also many small scale mining entities entered the mining industry. Due to the economic crisis a lot of small scale mining companies were allowed to carry out mining operations without operating licenses by the government in 2008. Illegal artisanal miners also took advantage to exploit mineral resources which created a lot of problems with the environment. Mining improved the living conditions of the people through the trading of minerals and employment (Makore & Zano, 2012).

However, the increase of mining activities by both the large scale and small scale miners has caused a lot of problems which denigrated the environmental rights of the indigenous people in Zvishavane. The impacts of mining on the environmental rights of the people in Mapanzure community have not been seriously considered hence posing great dangers to the well-being of the community marred with various mining entities. This is despite the fact that Zimbabwe is a signatory to many international treaties on Environmental Rights such as the 1972 United Nations Conference on Human Rights and the 1992 Rio Declaration.

One of the greatest challenges Zimbabwe is experiencing presently is the failure to achieve sustainable development through improving the quality of human life for both the present and future generations. In the 21st century environmental rights have gained popularity owing to pervasive climate change conditions. Failure to recognize environmental rights will lead to recurrent ecological dangers hence exposing the nation of Zimbabwe and the entire world to the dangers of natural resource depletion and climate change. In that way sustainable development will not be realised. Therefore, the aim of the study is to provide an overview of

the impact of mining on the environmental rights of the Mapanzure area in Zvishavane. It is blatant that if this area remains unaddressed the lives of the communities will be endangered by the mining activities.

Statement of the Problem

The decline of the most productive sectors of the economy, such as the agricultural sector, which worsened around 2000, led the country to rely on the mining sector for economic growth. The increase of mining activities in Zvishavane violated the environmental rights of the people in Mapanzure area. Against this backdrop, this study sought to assess the impact of mining activities on environmental rights as well as the efforts made by the mining companies to redress the environmental rights of the people in Mapanzure area.

Research Objectives

General Objective

To examine the extent to which mining has impacted on the environmental rights of the Mapanzure area in Zvishavane.

Specific Objectives

1. To assess the Mapanzure community's perception of environmental rights.
2. To identify the impacts of mining on the environmental rights of communities in Mapanzure.
3. To identify the efforts made by mining companies to protect the environmental rights of the local communities in Mapanzure in line with legal provisions.

Specific Questions

1. How do community members in Mapanzure understand environmental rights?
2. What are the impacts of mining on the environmental rights of communities in Mapanzure area?

3. What efforts have been made by mining companies to protect the environmental rights of the local communities in Mapanzure in line with legal provisions?

Significance of the Study

The study is of paramount prominence as it amplifies the knowledge base that at the moment exist on the discourse of mining and environmental rights. It probes a relevant contemporary theme amongst the 21st century scholars, practitioners, policy makers and professionals in the developing countries on the relationship that exists between business and human rights. In most developing countries the emphasis was chiefly confined on the socio-economic impacts of mining, hence very limited researches have scrutinised the impact of the extractive industry on environmental rights. The study will benefit not only communities by giving them a voice, but the mining operators, policy makers and enforcers, both governmental and non-governmental. For the communities, they will benefit from the study given that it would assist them in understanding their environmental rights. This research is well-timed as its results; conclusions and recommendations deliver essential indicators that will trigger authorities responsible for environmental management to focus on sustainable environmental policies and regulations in the mining sector.

Delimitation of the Study

The research is restricted to examining the impact that mining activities have had on environmental rights of the people in Mapanzure area. The research was not focused on the socio-economic and cultural rights of the community. Only environmental rights of the people in Mapanzure are assessed. Mapanzure was conducive to the study because of many mining activities taking place in the area.

Limitations of the Study

A constrained monetary resource in conducting the research was one of the major challenges encountered. Time constrictions to consult the respondents whose environmental rights were infringed and the inability to acquire unprejudiced information due to privacy and confidentiality from relevant authorities posed some limitations for the researcher. Also the study tools could not be fully pre-tested due to insufficient time, financial resources and logistical difficulties.

Conceptual Framework

Human rights are generally defined as fundamental rights that are innate to human beings (OHCHR, 1993). The notion of human rights recognizes that every person is entitled to enjoy his or her human rights without discrimination as to race, colour, sex, language, national or social origin, birth status and property. According to Daft (2000) human rights are legally stipulated by human rights law which intend to protect people against acts that denigrate the fundamental freedoms and dignity of people. Human rights are protected by international human rights laws such as the Universal Declaration of Human Rights, customary international laws and other separate bodies of law like soft law.

Human rights law compels sovereign states to respect and protect the rights of the individuals and groups, especially relating to the conduct of the state and the people. However, despite the existence of the law human rights are naturally guaranteed entitlements that are granted on the virtue of being a human being (UNDHR, 1948). Treaties and other sources of law usually assist in officially protecting the rights of individuals and groups the Governments which may in some cases interfere with the gratification of the human rights of the populace. Human rights are universal, inalienable, indivisible, interrelated and interdependent. It is

common that the violation of a single right will affect the respect of the other rights. All human rights should therefore be respected and promoted to attain development.

Environmental rights are defined as an extension of the basic human rights that mankind requires and deserves. In addition to having access to the right to food, clean water, suitable shelter and education, having a safe and sustainable environment is paramount as all other rights are dependent upon it (May, 2011). According to Boyle and Freestone (1997) the desire to ensure access for all earth's inhabitants to this essential standard of living is the primary concern of environmental rights. Environmental rights also include an obligation from the industrialists such as mining corporations to act responsibly in the use of natural resources as well as regulating the level of consumption in a more equitable and sustainable manner. Hence, in this study environmental rights encompass traits conceptualised above.

Definition of Terms

Mining: Mining refers to an activity that includes small, medium and large, informal, legal and illegal miners who use both sophisticated and unsophisticated methods to extract mineral resources from the earth's surface.

Environmental Rights: Environmental rights are human rights, as people's livelihoods, their health and sometimes their very existence depend upon the quality of and their access to the surrounding environment as well as the recognition of their rights to information, participation, security and redress.

Environment: The environment is defined comprehensively by the World Bank and International Finance Corporation (2002) as conditions under which any person or thing lives or is developed; the sum total of influences which modify and determine the development of life and character. EMA defines the environment, as the natural and man-made resources, both biotic and abiotic occurring in the lithosphere and atmosphere, water and soil, minerals and living organisms whether indigenous or exotic, and the interaction between them.

Ethical Considerations

The following ethics have been considered in carrying out this research:

- Safety and non-disclosure of private and confidential information of participants was maintained at all the time.
- The principle of informed consent where by participants willingly partake in an interview was the norm.
- Pseudo names were used during data gathering rather than real names.

Chapter Breakdown

Chapter 1: Introduction

Chapter 2: Literature Review

Chapter 3: Research Methodology

Chapter 4: Data Analysis and Presentation

Chapter 5: Conclusions and Recommendations

Chapter Summary

The chapter focused on the introduction, background to the study, problem statement, research objectives and research questions pertaining to the aim of the study. The chapter also presented the significance of the study which highlighted the importance of the research to the academia, policy makers and the impacted community. The limitations and delimitations of the research were also proffered in this chapter.

CHAPTER 2

LITERATURE REVIEW

Introduction

This chapter summarises a body of relevant literature reviewed to conceptualize the research subject, as literature review facilitates the researcher to develop a worthy understanding into applicable research and trends that have emerged therefrom (Nichollas, 2011). Many controversial debates exist on the impact of mining, but the knowledge on environmental rights is still limited. With regards to mining, socio-economic rights have been the rhetoric to most researchers. Hence, this research seeks to address the gaps that exist in the broader context of pre-existing literature on environmental rights. The variables discussed below include the theoretical framework, environmental rights, mining in general and an overview of mining in Zimbabwe.

Theoretical Framework

Ecological Modernisation Theory

The research was grounded on the Ecological Modernisation theory and the concept of Sustainable Development. A theory is defined as an explanation of a phenomena or abstract generalizations that systematically explains the relationship between a given phenomenon, for purposes of explaining, predicting and controlling such phenomena (Adbellah, 1987). The theory emerged in the early 1980's through the work of the German Social Scientist such as Joseph Huber and Martin Janicke. The major aim of the Ecological Modernisation theory was to examine how the modern industrialised societies have dealt with environmental problems, hence the emphasis of the theory was largely placed on the existing and programmed environmental reforms in social practices, institutional design and policy discourses to safeguard society's subsistence bases, as a symbiotic relationship exist between the economy and the environment. The theory sought to bring environmental issues into the well-being and lives of people as well as their development.

Moreover, the argument in the theory is that the central organisations of the modern civilization can be altered in order to prevent ecological catastrophe. Huber (1982) argued for the need for an ecological switch over which is a transition of industrial activities towards an environmentally rational organisation of manufacturing grounded on the idea of a transformed connection amongst the environment and the economy. The theory proposes that organizational modification should happen at the local level via all-encompassing changes in the economy and at the micro-economic level through the utilisation of modern clean technology (Murphy, 1997). According to Hajer (1995) and Harvey (1996) Ecological Modernisation Theory is linked to Sustainable Development such that Sustainable Development is the central story line of Ecological Modernisation Theory policy discourse. Dryzek (1997) however, stated that Ecological Modernisation Theory has an apparent logical consistency than Sustainable Development particularly on what exactly need to be done to the economies to ensure environmental protection.

The theory argues that the environment and the economy are interrelated and the resources should be used sustainably for the purposes of the future. Furthermore, the theory proposes the use of clean and sophisticated methods of production as a way of preserving the ecology and non-renewable resources. The propositions of the theory are related to the study as the research is concerned with the environmental rights of the people as mining entities are driven by the need to accrue more economic. The problem is worsened by institutional policies which this theory state that should be transformed to ensure reciprocity between the economic benefit and environmental preservation.

The Concept of Sustainable Development

The perception of Sustainable Development emerged from the World Commission on Environment and Development commonly known as the Brundtland Commission in 1987 in a reported dubbed the Our Common Future. The main idea stressed by the Sustainable Development concept is the link that exists between economic development and environmental stability. The United Nations General Assembly (1987) defined Sustainable Development as, development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The aim of Sustainable Development is therefore to maintain the economic advancement and progress while protecting the long-term value of the environment (Huber, 1982). It offers a background for the incorporation of conservational policies and development strategies.

Furthermore, the Brundtland Commission report conceptualised development as maintaining a healthy environment in which economic activities and humans co-exist. It then implies that development as a procedure that aims at improving the lives of the people within the environment through utilising resources in a sustainable and cautious way. The exploitation of resources, therefore, should not affect the lives of the people as the case with mining activities in Zvishavane. However, the overall purpose of Sustainable Development is lasting sustainability of the economy and the environment. And this is only attainable through the incorporation of environmental and social- economic knowledge throughout all the decision-making processes. The theory is directly related to the topic under study as the main issue why mining is impacting the environmental rights is that the ideologies of sustainable development are not totally respected by the mining companies.

Environmental Rights

Environmental matters, concerns and problems have received attention in recent times. Subsequently, the articulation of environmental rights is relatively a new phenomenon in both the Global North and the Global South (Mohamed, 2012). Internationally, old Constitutions such as that of the United States of America, France and the Scandinavian countries do not have any specific and direct provisions dealing with or concerning the environmental rights. However, recently several countries have adopted new Constitutions which now provide for environmental rights (Mohamed, 2012). Most such countries are no doubt in the Global South, being chiefly developing countries. The whole essence of incorporating the environmental rights into constitutionalism is about keeping pace with the global agenda of sustainable development and in line with business and human rights such that the environment is protected (UNGP, 2011)

Comprehensive as they are, environmental rights can be categorised into three: procedural, substantive and solidarity. According to Bruch and Coker (2001), procedural environmental rights have the role to promote transparency, participation, and accountability that form the foundation of environmental governance. These usually fall into four categories which are: access to information, public participation, freedom of association and access to the justice (Bruch et al, 2001). On the other hand, substantive environmental rights are the active rights located within the broader framework of international human rights law and that may be applied where environmental problems animate human rights concerns. Such rights include the right to life, the right to health, the right to an adequate standard of living, and the right to privacy (Mohamed, 2012). Lastly, solidarity rights centre upon a specific right in regard to the environment. Unlike other rights secured by the state alone, solidarity rights call for global participation for successful implementation. For Hassan (2013) they represent a broader community, hence universal cooperation is required towards a habitable world. Thus,

solidarity environmental rights are pillared on the ideas of self-determination and non-discrimination such as the right to development.

Over the last four decades, interest in the environment and laws relating to it, have heightened at a shocking pace, both on the international, regional and national level. There has been global recognition and increased attention on the environment due to escalating worldwide ecological problems. Redwood (1998) noted that the relationship between human beings and the planet on which we live has changed extremely because of the increase on environmental change due to rapid industrial activities. The threatening of the environment affects all the other clusters of the economy and well-being of the people; because all the other clusters of the economy are dependent upon the environment. The literature indicates that environmental issues have become a major issue in the 21st century.

Internationally, environment rights are recognised in many treaties and conventions. For example, the United Nations Declaration on the Human Environment (1972) recognised the connection among human rights and ecological safety, stating that, people have got the right to stay in an environment that ensures freedom, equality and a life of dignity. Other international legislatives on the protection of the environment include the Rio Declaration on the Environment and Development and the recent Sustainable Development Goals of 2015.

In Africa, the African Charter on Human and Peoples Rights (1981) plays a crucial role in protecting the environmental rights. It recognises environmental rights by stating that, all the people should live in a reasonable environment positive to their development. Similarly, in Zimbabwe many environmental laws are present. Amongst them include the amended Constitution of the Zimbabwe (amendment no. 20 of 2013), the EMA and the Mines and

Minerals act. Many laws exist on the subject, but what remains a challenge is the implementation of such policies at a domestic level to protect environmental rights.

Regardless of the notable development of international environmental law, there is a big challenge in the enforcement of the laws for the protection and preservation of the environment in many countries, especially in Africa where a number of incomprehensive domestic policies co-exist with a number of international conventions (Dreschler, 2001) Zimbabwe is no exception to this challenge. However, the major gap need to be addressed is the protection of the environmental rights of the people to ensure that they live in a clean environment.

Mining in general

Sudan and Johns (1990) conceptualised mining as encircling the events, activities and productions concerned with the exploitation of all types of natural mineral elements from the earth's surface. Ross (2001) attested that mining includes stages such as prospecting, development, exploitation and exploration. During mining, trenches and pits are opened; camps and related facilities are developed as well as access routes are established (Svotwa & Mtetwa, 1997). In the developed world mining poses less impact on the environment unlike in the developing world where unsophisticated methods of extracting ore are used. Hilson and Wayee (2000) attested that mining in most of the African countries is unsophisticated and rudimentary methods are oftenly used which threatens the environment. For example, in Ghana mining accounted for about 95% of total export proceeds, whereas less than one-third of the income is directed towards corporate social responsibility. Whereas this is a different scenario in the developed world, for example, in Canada, Ontario's a large scale mining company invested \$10.6 billion towards corporate social responsibility in 2016. This is not the case in developing countries of Latin America, Asia and Africa. The revenue derived

from mining activities is used in other sectors such as political campaigns and social services provision without catering for environmental protection. This is leading to an imbalance between the socio-economic and the environmental spectrum. Anderson (2017) stipulated that in many Sub-Saharan African states, mining is responsible for environmental change as compared to other parts of the world. In sub Saharan Africa mining impacts have surpassed the global yearly average percent of environmental change which is 0.8 percent.

Impact of mining on the environment

In most parts of the world the mining industry has played an important role in the economy as evidenced by an increase in investment and economic growth, especially in countries endowed with natural resources. Most importantly, mining activities have increased rapidly in the developing world because of their over dependence on the exportation of primary commodities (Anderson, 2017). Due to over reliance on the exploitation of mineral resources many countries in the developing world have witnessed a number of environmental problems. In many countries mining has led to excessive land degradation, deforestation and air pollution.

In Latin America, mining activities have resulted in massive land degradation and air pollution. In Philippines and Peru gold production has constituted over 90 % of total production which claimed a lot of land to be degraded. Alluvial gold production has also caused massive water pollution. This illustrates the impact of mining in the developing world as a result of over reliance on the primary sector. Most of the mining activities in Latin America have caused greenhouse gases and health challenges to the local communities. According to the World Bank (2014), gold production in countries like Peru and Ecuador

keeps pace with population growth and due to that, environmental problem are likely to grow further impacting the environment.

In the African continent, one of the most important challenges is abject poverty and poverty commonly results in environmental pressure. In most African countries with abundant mineral resources such as Burundi and DRC there is unbalanced pattern of consumption and production commonly caused by foreign investors. For all the challenges faced by people in the developing world, the environment usually stands as a refugee through over reliance on finite natural resources. For example, in Ghana, gold constitutes two-thirds of production. In Zambia, methods of mining such as open shaft mining have also led to the cutting down of large tracks of land in the preparation for mining activities. Additionally, despite mining production many people are also relying on the selling of fire wood which also causes environmental problems through deforestation.

The International Institute for Environment and Development (2013) noted that the increase of mining activities in the developing world in Africa, Asia and Latin America has posed unbearable environmental impacts. Due to amazing levels of poverty in the developing world, Johns (2012) indicated that artisanal and small-scale mining activities have increased largely as alternative sources of income. It is estimated that about 13 million people in about 30 countries in developing countries are directly engaged in small-scale mining (World Bank, 2014). A further 80 to 100 million people across the developing world could depend on small-scale mining for some aspects of their livelihoods (UNEP, 2015). Small-scale mining can be extremely environmentally damaging and often has serious health and safety consequences for workers and surrounding communities. This is generally due to poor practices in mining and processing.

More so, in Africa mining is responsible for 50% of the carbon dioxide emitted into the atmosphere annually. This is because Africa contains 30% of the world's minerals resources including the largest known reserves of a wide range of strategically important minerals (Taylor, 2010). However, it must be noted that mining activities have caused a lot of environmental problem in the world. And the most horrible thing is that the environmental impacts of mining are underestimated which is the major reason why many environmental rights are violated.

An overview of mining in Zimbabwe

Like any part of the world mining played an important role in the economy of Zimbabwe. In Africa and in sub Saharan Africa in particular, Zimbabwe is one of the countries that have relied on the mining industry for economic growth. All the types of mining exist in the country, ranging from the formal and informal, large scale miners and small scale miners (Gwenero, 2016). After the failure of the Fast Track Land Reform Program around 2000 in the country, the agricultural sector declined rapidly, resulting in the mining industry being the largest exporter in the country (Ellis, 2000). Maponga (2001) pointed out that the decline of the agricultural sector, which was providing livelihood to approximately 70 percent of the people in the country reflected the pressure exerted on the mining sector in the absence of viable agricultural production. In addition, Saunders (2008) argued that, the majority of the population that was dependant on agriculture had transformed to mining due to the paradigm shift, particularly communities endowed with abundant mineral deposits opted for artisanal mining. Such communities include Zvishavane, Marange, Shurugwi and Mberengwa.

In addition, the economic hardships of the period 2008-2009 in the country emanated as a result of high unemployment rates, hyperinflation and abject poverty, further increased the

number of mining activities in Zimbabwe, both the large scale and small scale entities became dominant in the extraction industry. The increase of mining activities in Zimbabwe has however caused different impacts on the rural communities especially in areas with many resources. In Chiadzwa, the discovery of diamonds caused massive environmental pressure due to the increase of mining activities in the area. Water pollution in the Odzi River was high due to the digging along the river. Many people suffered from water bone diseases in the area (Mtisi, 2009). In Mtoko, the mining of the black granite has caused a lot of air pollution in the area due to the blasting of the rocks. Zano (2015) pointed out that many large open pits were left in the area after the mining of the black granite. The pits have also endangered the livestock's as some beasts have fallen in the open pits. Zvishavane is no exception to the impacts of mining in Zimbabwe.

The presence of many minerals like gold, diamonds, chrome, steel, platinum and nickel in the Great Dyke belt, termed 'the mineral hub of Zimbabwe', attracted several foreign investors to establish large plants in Zvishavane (ZELA, 2012). According to Mwase (2016), many of the mining activities in Zvishavane district are carried out by foreign investors such as the Rio Tinto in Murowa, Zimplats in Mhondongori and the Chinese mining entities in Mapanzure. Nevertheless, mining provided livelihoods to many people in the rural communities such as Zvishavane, Mberengwa, Mtoko and Lupane. Large scale mining companies such as Mimosa and China-Zimbabwe are operating in in Zvishavane.

Apart from large scale mining entities, several small scale chrome miners entered the mining sector. The Chamber of mines (2000) estimated the figure of illicit gold panners to be above 1000 in the province. However, mining activities have caused a lot of environmental dangers. The challenge is still going on as many entities are still operating in the mining industry. The

knowledge that exists on the effects of mining on the environmental rights of the people remains limited. For sustainable development to take place the environmental challenges currently faced by the community members in Mapanzure in particular should be addressed.

1.1 Chapter summary

The chapter explained the Ecological Modernisation theory and the concept of Sustainable Development in which the research is grounded on. Also the key concepts of the research, such as the environmental rights and the impact of mining on the environment have been elucidated in the chapter, to provide a working framework for the entire research. The chapter also discussed about the general situation of mining in Zimbabwe which will assist in the understanding of the relationship between mining and environmental rights. The reviewed literature signified that a gap indeed exists on the impact of mining on environmental rights as corpus literature has concentrated on the socio-economic impacts of mining on the mining communities of Zvishavane in Mapanzure area.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

The chapter discusses the research methodology, the research design, the target population, the sampling procedure, data collection tools and the data analysis strategies employed in the research.

Research Methodology

Leedy and Ormrod (2001) defined research methodology as the general approach the researcher takes in carrying out the research project. Babbie and Mouton (2008) added that research methodology refers to the researcher's process of collecting and interpreting data with a clear objective. Therefore, the research methodology is a critical process when carrying out a research as it specifies how the research addresses the objectives of the study.

Qualitative Research

Creswell (2011) suggested that qualitative research offers opportunities for conducting explanatory and descriptive research that uses the context and setting of the phenomenon to search for a deeper understanding of the persons being studied. Qualitative research is an approach used to explore and understand the meaning individuals or groups ascribe to a social or human problem. In the research the qualitative research approach was used because it ensured the researcher to understand the perceptions of the people on the impact of mining on the environmental rights. Methods such as in-depth interviews, participatory observations and questionnaires were used to obtain relevant data

Research Design

Leedy (2001) defines research design as a plan for a study, providing the overall framework for collecting data. MacMillan and Schumacher (2001) define it as a plan for selecting

subjects, research sites, and data collection procedures to answer the research questions. For the purposes of this study, a descriptive research design was used as the research sought to understand the phenomenon of environmental rights violations by mining activities.

Target population

Parahoo (1997) defined target population as the total number of units from which data can be collected, such as individuals, organisations, artifacts or events. In this research, the researcher's targeted population included Mapanzure community members, community leaders, household heads, mining companies, managerial officials from EMA, ZINWA, Runde District Council and focal persons of stakeholders like ZHRC and ZELA.

Sampling procedure

Sampling refers to the selection of a subset of persons or things from a larger population with the intention of representing a particular population (Scott, 2007). Purposive sampling was used in this research as it was suitable to discover, understand and gain an insight of the phenomenon under study. A sample size of 40 respondents in the Mapanzure area was used to collect data. The sample was purposively selected from the targeted population which included the community members, household's heads, artisanal small scale miners, community leaders, managerial officials of EMA and Runde District Council and focal persons of the ZHRC and ZELA.

Data collection instruments

Parahoo (1997) defined a research instrument as a tool used to collect data. In this research, data was collected through in-depth interviews, participatory observations, open-ended questionnaires and documentary review. Thus, primary and secondary data collection techniques were comprehended in gathering data from a diverse range of respondents with different experiences, hence avoiding bias.

Primary data

Sanders (2000) defined primary sources of data as information that the researcher has collected personally. Creswell (2003) noted that primary data denotes the original data not changed and unpublished. Therefore, the primary sources of data used in this study include in-depth interviews, participatory observations and open-ended questionnaires.

In-depth interviews

The main purpose of the research interviews is to discover the opinions, understandings and beliefs of persons on precise matters. In this research, in-depth interviews were conducted with community members and household heads in Mapanzure, the management officials of EMA, artisanal small-scale miners, focal persons of ZELA and ZHRC. The interviewees were asked unstructured questions about the impact of mining on the environmental rights. The interviews were meant to gather data on how environmental rights were violated by mining activities within the area. Interviews also allowed respondents to express their opinions, thoughts and recommendations freely.

Participatory Observations

Creswell (2009) described observation as the orderly explanation of the proceedings, activities and artifacts in the social setting chosen for study. Observation facilitates the researcher to describe existing situations using the five senses and providing a written photography of the situation under study (Babbie & Mouton, 2008). A participant observation was essentially utilized during the course of this study as the researcher visited sites where the mining activities were carried out. The observations made it easier for the researcher to analyse data.

Questionnaires

A questionnaire refers to a set of pre-tested questions relating to the area of the study. The researcher used open-ended questionnaires because they assisted the researcher to obtain data

on the feeling of people about the impacts of mining on their environmental rights. The use of open-ended questions allowed the respondents to express their feelings freely. The questions were drafted in a simple way such that they can be easily understood. The questionnaires were distributed in an orderly manner in relation to the sampled population.

Secondary data

Secondary data is the use of existing data to find answers to research questions that differ from the questions asked in the original research (Hinds, 1997). This research made use of various dissimilar secondary data sources to obtain data. The secondary sources used in the research include documentary evidence from published journals, reports, textbooks, newspapers and online pertinent sources. The desktop research was critical in data collection as most of the information respondents might have forgotten during the face to face interviewing process was acquired from analysing the published documents.

Textbooks and Journals

A sample of relevant books and published journal was consulted during the study. Also, e-books and e-journal accessible were used by the researcher. This assisted the research to have a comprehensive appreciation of the different views surrounding the subject of mining and environmental rights.

Internet

The internet was very crucial during the research of this study as it allowed the researcher to collect a wide range of data without having to open a lot of books. It was a quick and a convenient way of gathering data through accessing PDFs, e-journals and e-books via the Google.

Online Media Tools (radio, TV broadcasts and Newspapers)

Data was also collected from the newspaper articles. Current news broadcasted on the TV and radio assisted much in the course of the research as it was an avenue of obtaining current and latest information that could not have been found elsewhere in books or journals.

Data Analysis

The thematic methodology of data analysis was used in analysing data in this research. The thematic analysis consists of five steps that are data familiarization, code generation, theme search, themes revision and theme definition (Braun & Clarke, 2006). The data familiarization includes field observation along with the interview sessions; the revised themes included the interrogation of the community members and community leaders, while the theme definitions were grasped during the process of conceptualizing the critical variables on the thesis. The thematic analysis provided detailed information on the impacts of mining activities on the environmental rights of the people in Mapanzure area

Chapter summary

The field research was grounded in the qualitative methodology of data collection. Purposive sampling was used to sample a population size of 40 respondents from Mapanzure area. The targeted population comprised of the local leaders, community members, government authorities and the miners themselves. In-depth interviews, participatory observations and questionnaires were used as primary sources of data collection. Data were analysed thematically.

CHAPTER 4

DATA ANALYSIS AND PRESENTATION

Introduction

This chapter focuses on the analysis and presentation of data collected from the Mapanzure area through participatory observation, in-depth interviews and questionnaires. The information presented in the chapter is analysed thematically. Evaluated data were presented thematically in the guide of the objectives of the study.

Response rate

The response rate is the number or percentage of the people who participated in the survey divided by the number of the targeted sample. The response rate is very crucial in a research as it determines the credibility of the research findings. The higher the return rate the more reliable are the findings. The study utilised the interviews and the questionnaires. The response rates are presented below. The researcher interviewed the community members, community leaders, artisanal miners and the government officials.

Interview response rate

The researcher conducted 20 interviews. Amongst the interviewed are the community members, local leaders, miners and the government officials in the Mapanzure area. 10 interviews were conducted by the community members and the community leaders, 5 interviews were conducted by the mining entities and the other 5 interviews were conducted by the responsible authorities. Many respondents managed to provide data because the researcher used the local language, hence there were no language barriers or communication breakdown encountered. However, 2 interviews were unsuccessfully conducted with the government officials, which refused to attend the interview sessions.

Questionnaire response rate

A total number of 20 questionnaires were distributed to the participants and 17 questionnaires were successfully returned. Of the 20 questionnaires, 10 were distributed to the community members and local leaders, 5 questionnaires were distributed to the mining entities and the other 5 were distributed to the responsible authorities. However, 3 questionnaires were not returned. The researcher tried to follow up, but nothing materialised. Through the use of the questionnaires the researcher managed to obtain data that could not have been obtained through interviews as people felt very free to write their experiences.

Demographic variables of respondents

In this section, the researcher presented the demographic profile of the respondents basing on gender, age and level of education of the participants.

Gender composition

The research revealed that both the male and female members of the society are affected by mining activities. From the 17 questionnaires successfully returned, 10 were completed by males and 7 were completed by females. Males were more active because they participate in mining; hence they have a better understanding of what is happening. However, the researcher found out that men were mostly affected since they are involved in the mining activities as the work requires more power. Females are affected minimally due to the fact that they are not breadwinners and most of the time they will be at home.

Age composition

The researcher found that those who are between the age group of 25-60 were most active in participating in the interviews and in responding the questionnaires. The reason being some of them are household heads. The age group below 25 were less active due to the fact that some of them were not regarded as adults as they are still under the custody of their families.

Level of Education

The level of education of the respondents was analysed with the aim of identifying how educated community members understand the impact of mining on their environmental rights. Also the researcher wanted to have an idea of the respondents that are employed and those that are involved in illegal mining as a result of sourcing income. However, the researcher noted that many respondents have managed to attain primary education and a few have managed to reach secondary, advanced and tertiary level.

The Findings

Mapanzure community's perception of environmental rights

Environmental rights as a group of other categories of fundamental rights remains a problem in terms of distinction. The findings of the study substantiated the claim by showing that community members in Mapanzure area do not really understand environmental rights. They are more aware of the socio-economic and political rights. Respondent **A** who is an artisanal miner aged 30 indicated that, *we got to understand the other categories of human rights due to direct involved in the mining activities for the purposes of earning a living*. Hence, whenever they are deprived of their privileges to benefit from their natural resource such as gold and chrome found in the area, they are quick to react and compete for survival. Through the interviews conducted and questionnaires distributed only a few individuals managed to understand environmental rights purely. Another issue noted is that many people in the community are not educated due to that it is very hard for them to understand environmental rights and the dangers associated with mining activities on this category of rights.

More so, the researcher observed that for those who are educated and able to articulate their environmental rights they are not confident to report and seek for remedies from the

responsible authorities. Most of the respondents have an imagination of what environmental rights entail, basing on that, valuing environmental rights as an important need for survival has been a taboo. Most of the respondents interviewed illustrated that they are more concerned about earning a living from the resources that they have and the issue of realising the need to protect the environment has been always a secondary issue to them. One respondent by the name *Zhizha* (pseudo name) a senior teacher at Mapanzure primary school stated that, *my son we will start to think about environmental protection when the large scale mining companies seize their mining operations*. The point here is that the community is not benefiting from mining carried out by the large scale mining companies that are responsible for causing a lot of damage to the environment. Hence, considering environmental rights become problematic as the mining entities are not protecting the rights of the people.

In terms of understanding the legislative frameworks that exist in the protection of environmental rights, the community members are sceptical about the laws. Only a few number of respondents managed to cite the Constitution of Zimbabwe. Respondent **B** in chief Mapanzure village alleged that, *we knew the Constitution through political campaigns and gatherings that are oftenly carried out in the area. That is where our leaders told us about it but we have never read it*. The great issue remains on the articulation of the environmental rights. Though many cited the constitution, they failed to define the environmental rights. The researcher also observed that the people of Mapanzure community do not even know that it is their Constitutional right to live in a clean environment and to demand for information such as the Environmental Impact Assessments from the mining companies. Hence, as a result of this, the community needs to be engaged and educated on the discourse of environmental rights and alternatives in place to remedy the impact of mining on their rights.

Environmental rights violated by mining in Mapanzure area

Right to a safe and sustainable environment

The right of the people of Mapanzure to live in a healthy and sustainable environment has been violated by the mining companies operating in the area. Not only large scale mining companies have contributed to this problem, the small scale mining operators and the illegal artisanal miners have also added to the problem through their rudimentary ways of extracting ore from the ground. In Mapanzure chrome mining is prone and the mining of chrome has been associated with health hazards. The right to safe and clean water that is directly depends on the well-being of the environment has been violated in the community. The researcher also identified that mining activities have devastated large tracks of land through the preparation process of mining activities

Runde District officer noted that the plight of underground water contamination can be attributed to irresponsible actions of mining entities on the environment, specifically through the leaching of explosives such as cyanide and mercury into the ground. Chrome mining activities also intensified the dangers of waterborne diseases such as bilharzia and skin diseases. The interviews conducted with the manager of ZINWA revealed that the small-scale artisanal miners are dumping both solid and liquid wastes produced by their mining operations in the water bodies such as rivers. The pollution of water sources by explosives has also resulted in the loss of aquatic species. As a result of such effects of mining the environment is no longer sustainable for living as mining has posed many dangers.

Right to Environmental Information

The community members of Mapanzure have been deprived of their rights of access to environmental information. Having access to environmental information is an important environmental right. Access to information ensures that the people are in control with the

natural resources they own and they should also understand how those resources are extracted. The mining companies operating in Mapanzure are denying the local people access to environmental impacts. The respondents reported that they are deprived of their environmental right by denied access to EIA documents and dust pollution standards by the Runde Rural District Council and the Chinese mining companies, thereby contravening section 62 of the Constitution of Zimbabwe which encapsulates the rights to information. Sibanda (2014) highlighted that only 3% of the Zimbabwe Stock Exchange-listed companies disclose information on their environmental impacts in their annual reports. The mining companies are not recognising the EMA that mandates them to inculcate the local people when they are undertaking their mining activities. Most sad is the fact that some mining corporations such as the Chinese are even operating without valid operational licenses.

The right to safe and clean water

Water contamination is a critical environmental right violated by the mining activities in Mapanzure. Water contamination in Mapanzure was attributed to the mining activities of irresponsible mining that are using explosives such as cyanide and mercury that leach into the ground. Chrome mining activities in the area have worsened the dilemma of water scarcity due to contamination of major water sources exposing people to the dangers of waterborne diseases. A respondent identified as Beza at Mapanzure high School pointed out *that household wells and boreholes are fast drying up because of underground seepage as water drains out quickly in the open pits left by open shaft mining.*

The respondents also indicated that water contamination has been worsened by small-scale miners who are very notorious for open defecation because of their reluctance in constructing toilets at their mining sites; hence posing a high risk of water pollution as human excreta is

drained into the rivers and wells. In view of the nature of water contamination in the communities, ZINWA officials who were interviewed alluded that large water bodies such as Ngezi River are no longer suitable for providing clean and safe water for household use as the sources contain larger quantities of chemicals produced during the processing of ore.

Ecological degradation

The mining activities in Mapanzure have disturbed the natural ecosystem through rudimentary and unsustainable methods of mining used. Many mining companies operating in Mapanzure such as the Chinese owned entities have utilised reckless mining methods with no regard to the protection of the environment and often abandon their responsibility by leaving a permanent footprint of unrehabilitated areas. The chrome mining activities in Mapanzure have disrupted the landscape in that large open cuts and open pits are created. Numerous open pits were left after the chrome mining companies closed or ceased their operations. The open pits created by mining activities have posed a great health risk and loss of life to the people and livestock's due to falls in inadequately protected mines. The villagers in Mapanzure articulated their annoyance to the way the mining companies have depleted the environment by leaving many unrehabilitated pits in the communities, which is reported to be almost 30 meters deep (Mtisi, 2013).

Most of the respondents from the village expressed that the impact of mining has also affected their agricultural activities as well as grazing land for their livestock's. Agriculture, which is one of the major sources of livelihood has declined due to the loss of biodiversity. Sibanda (2014) however, posits that grazing land for livestock is fast diminishing threatening livestock, which is a significant source of food, income and power for tilling the land. Furthermore, findings from the community illustrated that the ecology is degraded because of the small mining companies that are operating without licenses and Environmental Impact

Assessments. The common enterprises known for that are the Chinese firms such as the Zim-China and Ding Li Chrome. All the operations of these small-scale chrome miners in the village are surface mining or open pit activities on the claims that belong to Zimasco.

Pollution

Mining activities in Mapanzure area have resoundingly resulted in excessive pollution. All sorts of pollution such as air, water and sound pollution are prevalent in the area. The right to a clean and sustainable environment as well as the right to ecological sustainability have been violated by the mining activities. The processing of ore due to blasting of stones and the transportation of ore by heavy vehicles has resulted in visible dust and particulate matter. The increase in excavation, cleaning of mining sites, deforestation and the movement of heavy vehicles transporting mineral deposits are causing a lot of dust to pollute the air and covering the vegetation around the area (Maponga, 2015).

The researcher interviewed EMA which noted that dust pollution is a critical issue in the entire district due to mining operations by reckless mining companies which are not employing best technologies and techniques to mitigate the levels of carbon emitted into the atmosphere. The participants were extremely worried about their health status expressing that if air pollution increases their health will be jeopardized due to chronic asthma and silicosis. It was observed that air pollution, especially from dust and particulate matter, have disturbed the growth of vegetation, hence biodiversity loss which also affects agricultural activities of the communities further shrinking their livelihood sources in an already arid land.

Efforts made by mining companies to protect the environmental rights of Mapanzure community

The environmental impacts of mining prolong well after the mining operations have been exhausted thus, bearing a protracted burden to local communities that reside adjacent to mining sites as well as the entire population. The major environmental legacy of the mining activities in Mapanzure area is the presence of large unfilled open pits abandoned by the miners, which have significantly threatened the rights of the people. Mining companies in an attempt to alleviate environmental degradation have, to some extent obliged to their CSR duty by enforcing mitigatory mechanisms vis-a-vis the rehabilitation of the degraded environment as well as the protection of environmental rights. Such mechanisms implemented include fencing of open pits, land reclamation, reforestation, and formation of the environmental and water committees through the ZCSOT.

Fencing of the open pits

Open pits were found to be a common phenomenon in the Mapanzure area of Zvishavane and they have evidently posed great dangers to the people as well as the livestock. In an effort to minimize the dangers of abandoned open pits to the mining communities Zim-China and Zimasco, for example, has been fencing the open pits. Fencing open pits is a crucial function in protecting community members as open pits can lead to death or permanent injuries, apart from the casualties agricultural land is taken up hence leaving people with scarce land for agricultural purposes. However, the respondents interviewed in Mapanzure indicated that the company only fenced countable open pits and so far the fences have been vandalized; leaving countless pits uncovered due to some irresponsible community members who stole the fence and poles used to cover the open pits. Experiencing such, the company has never tried to replace the fence or to implement another strategy of covering the pits, hence shunning its responsibility of rehabilitating the environment and protecting the environmental rights of the communities.

Land reclamation and gully filling

Some mining companies in Mapanzure have tried their best to refill the pits created by their mining companies. Such companies include the Chinese entities and some small-scale chrome miners who are partially rehabilitating their pits. Small-scale chrome miners due to the scarcity of resources have used the front and loader vehicles to backfill excavated open shafts which proved to be a fruitful venture in the quest for environmental protection in the area. Nevertheless, as much as mining companies have tried to rehabilitate the degraded land it has been observed that the efforts are still grossly inadequate as compared to the degradation caused in the area. The researcher also observed that the mining entities such as the Chinese owned companies are particularly more concerned with their economic gain than environmental protection and the needs of the local people hence the imbalance has led to the depletion of the environment.

Zvishavane Community Share Ownership Trust

The promulgation of the ZCSOT in Zvishavane following the IEEA earmarked some great efforts by the mining companies towards the realization of the rights of mining communities. The ZCSOT through its various committees such as the Environmental and Water committees has been to some extent able to mitigate the impact of the mining activities on the environment. Mining communities through the trust have been afforded the opportunity to participate in the decision making process through monthly meetings held by the councillors and traditional leaders with the mining companies. During such platforms community members have been able to discuss their concerns in relation to the protection of their rights.

The community members in Mapanzure village highlighted that Mimosa mines has been successfully carrying out the monthly meetings with the community and has also

incorporated some of the grievances raised by community members into its operational plans. Communities have been receiving developmental funds from the Mining companies aimed at developing the areas where the natural resources are exploited from. However, participants from Mapanzure proved that there is no noticeable corporate social investment from the chrome miners who are the champions of environmental degradation, except from Mimosa which is the largest contributor of the ZCSOT.

Reforestation

Mining activities in Zvishavane have unequivocally resulted in the clearing away of large hectares of forested land due to the pervasiveness of the open cast method of mining. A survey that was conducted in the Mapanzure community, in particular, resembled that small-scale chrome miners have been at the forefront in terms of causing deforestation to the environment. In the quest of rehabilitating the environment, Mimosa mines have established a nursery garden at one of the primary schools it has constructed called Mtshingwe primary school. The nursery garden has made incredible progress towards reforesting the degraded environment by providing seeds and plant nurses in the entire province of midlands.

Chapter Summary

The above chapter analysed the findings obtained from the field by the researcher in relation to answering the objectives that informed the study. The findings of the study revealed that indeed countless environmental rights of the people in the Mapanzure area of Zvishavane have been violated by the mining activities. Some environmental rights impacted by mining operations observed include the right to safe and sustainable environment, the right to environmental information, ecological degradation and the right to an environment free from pollution. The outcomes of the study also showed that mining companies operating in the area are enforcing insufficient mitigatory mechanisms in tandem with the impact their activities had posed to the environment and the rights of communities.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

Conclusion

In this chapter the researcher discussed the summary of the study, which is the impact of mining on the environmental rights of the people in Mapanzure area. The recommendations and lastly the conclusion of the study are also outlined in this chapter.

Summary of the study

The research sought to assess the impact of mining on the environments of the Mapanzure community so as to understand how mining is counteracting sustainable development. The main objectives were to understand the perception of the people in Mapanzure pertaining to environmental rights. The research also wanted to assess the environmental rights that were affected by the mining activities in the area. And ultimately the researched wanted to assess the efforts made by mining companies to redress the environment. Chapter one of this study focused on the background to the study, the problem statement, objectives, the conceptual framework as well as the limitations to the study. Chapter two of this research essentially looked at the literature review around the study. It also explained the theoretical framework and the key concepts of the thesis. The research methodology, data collection instruments and data analysis strategies were discussed in chapter three of the study. The research was qualitative in nature and data was presented thematically. Chapter four of the study presented the data collected from the field. Ultimately, chapter five of the study summarises the study, the recommendations and the conclusion of the research.

Recommendations

While the sustainable extraction of mineral resources and the practice of sophisticated methods and techniques of mining (responsible investment in the extractive sector) in the

country are still to be developed and grasped, there are many initiatives and strategies that can be implemented to ensure sustainable environmental conservation and protection of environmental rights of mining communities in Mapanzure. The initiatives include the strengthening of legal policies and institutional frameworks on mining and environmental management, holding mining companies accountable by legislating CSR as an ethical responsibility by the enterprises and ensure evocative participation of communities affected by the impacts of mining operations. The following recommendations are targeted towards policymakers, mining companies, human rights bodies and Civil Society Organizations (CSOs) and affected mining communities.

Legal policies and frameworks

- **The Mines and Minerals Act** should be amended as it is presently old-fashioned so as to establish comprehensive provisions on the management and protection of environmental rights of mining communities. The Act must be revised and aligned with the provisions of the amended Constitution of Zimbabwe, particularly the bill of rights section to ensure the protection of environmental rights as the Act is oblivious with regards to this category of rights.
- **The Environmental Management Act** needs to be effectively monitored, enforced and coordinated such that mining companies operating in the country alleviate the impacts instigated by their mining operations on the environs and local communities residing in the vicinity of mining sites. The Environmental Management Agency should ensure that EIAs are effectively carried out so that mining communities are amply consulted and partake in policy-making procedures that disturb their environmental privileges and living conditions.

- **The new Constitution of Zimbabwe** bill of rights section should be effectively enforced at all levels by governmental agencies and departments responsible for administering policies and legal frameworks for the management of the environment and the extractive sector, such as EMA, ZRP, the Ministry of Mines and Mining Development and the Ministry of Environment.

UNGPs endorsed in June 2011 by the United Nations Human Rights Council (UNHRC) should be adopted in the country as they will go a long way in protecting human rights abuses by business enterprises.

- **The issuance or renewal of mining license** should be merit-based considering the performance of the mining company on issues such as environmental rehabilitation and corporate social investments.

Mining companies

- **Corporate Social Responsibility** should be enacted in Zimbabwe. It should be legally binding and enforceable by law so that all mining companies are compelled to contribute perceptibly to local communities through the establishment of diverse sustainable projects. On the same note, CSOTs established by IEEA should be effectively monitored to hold mining companies accountable with regards to a significant contribution to community development.
- **Mining companies** must compensate those who have lost their livestock, loved ones or injured as a result of falling into open and unsecured mining pits.
- **Community Participation** must be effectively enhanced by mining companies, especially when carrying out EIAs. They should adequately inform and consult members of the community such that they profoundly contribute to matters that affect their environmental rights.

- **Mining companies** should be compelled to set up a fund to rehabilitate the environment after exploiting minerals.

Communities

- **Awareness Raising Campaigns** should be carried out in mining communities, especially with regards to legal policies and institutional frameworks that exist in the protection of the environmental rights. Most mining communities are unaware of some of the significant acts of environmental management hence they should be educated on the various remedies at their exposure. Of all the acts, research in mining communities of Mapanzure has shown that the Constitution of Zimbabwe is the commonly known piece of legislation precisely due to many political gatherings that are held in the communities.
- **Mining communities** need to be sensitized to the fact that evidence is essential in relation to environmental rights violations. For instance, communities should be aware that they need to keep minutes of meetings with mining companies, audios, videos, pictures, records for dust emissions and any evidence relevant because that information is very significant for investigation purposes.
- **There is a need to increase participation** of host communities in chrome mining by forfeiting claims that are not being used by big mining companies such as Zimasco. This will discontinue the current unfair practice where indigenous participation in chrome mining is largely limited to contracting which is disproportionately in favour of claim owners.

Human rights bodies and CSOs

- **Independent commissions such as the ZHRC** should be capacitated, strengthened and trained on the discourse of human rights and business.

- **CSOs** working on environmental sustainability, such as ZELA should strengthen their capacity in advocating for the promotion and protection of environmental rights of communities affected by mining activities.

Conclusions

The study has brought into light that mining activities have impacted on the environmental rights of the people in the Mapanzure area of Zvishavane. It was clear from the research findings that mining operations have significantly resulted in the contravention of the right to a safe and sustainable environment, the rights to environmental information and the right to live in a pollution free environment. Though in some cases mining has contributed to the livelihoods of the local citizens through employment creation and delivery of public services, the research findings have significantly demonstrated that mining activities in Mapanzure area have caused more immeasurable negative impacts on the mining communities than the good. The research found out that the livelihoods of community members in Mapanzure have been greatly affected due to the violation of environmental rights, for example; agricultural production has been on the decline in the area due to loss of biodiversity. Moreover, the study provided some insights on the efforts made by mining companies towards alleviating the implications of mining on the environs and the rights of communities. Such efforts include land reclamation, the fencing of the open pits and reforestation. However, research has shown that efforts made by mining companies are exclusively insufficient as compared to the adverse impacts their mining activities have projected on the environment.

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Appendices

Questionnaire

Elvis Munyoka (R144782A) is my name a fourth year student at Midlands State University studying Development Studies. I am carrying out a research on the impact of mining on the environmental rights of the Mapanzure area. I would like you to assist me by answering the following question; your response will be strictly used for academic purposes.

A. Demographic information

1. **Sex** Male Female

2. **Age** (i) 18 years and below (ii). 18 -30 years (iii) 30-60 years

3. Level of education

(i) No schooling (ii) Primary education (iii) Secondary level (iv) Advanced level
(v) Tertiary level

4. **Occupation** (i) Employed (ii) Self-employed (iii) Unemployed

B. Research Questions

5. What are the means of living in Mapanzure?

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6. What are human rights?

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7. What do you think environmental rights are?

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8. What are the major environmental challenges you are facing?

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9. How long have these challenges affected you?

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10. What efforts are put in place by the mining corporation in protecting the environmental rights?

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11. What environmental laws do you know?

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.....
12. Have you ever reported environmental rights violations to responsible authorities? If yes, where?

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13. What help have you received?

.....
.....
14. What do you think should be done?

.....
.....
15. Do you have any comment?

THANK YOU

Appendices 2 Interview Guide

Elvis Munyoka (R144782A) is my name a fourth year student at Midlands State University studying Development Studies. I am carrying out a research on the impact of mining on the environmental rights of the Mapanzure area. I would like you to assist me by answering the following question; your response will be strictly used for academic purposes.

Questions

1. What are the major environmental challenges faced by people in the Mapanzure community?
2. How long have you been affected by the mining activities in the community?
3. What compensation do you receive from the mining corporations when you report cases of environmental rights violations, are the mining corporations willing to respond to the effects?
4. What environmental legal provisions do you know?
5. What efforts are put in place by the mining corporations in safeguarding environmental rights?
6. What do you think should be done to protect the environmental rights?
7. Do you have any comments?

THANK YOU