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**MINERAL GOVERNANCE AND HUMAN DEVELOPMENT: THE CASE  
OF WESTERN GHANA**

**BY**

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HARE**

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## DECLARATION

I, the undersigned **Felix Danso**, hereby declare that the thesis is my own original work and that it has not been submitted, and will not be presented, at any other University for a similar or any other degree award. Work from literature was written with citation of the relevant authors.

.....

Signature

.....

Date

## DEDICATION

This work is dedicated to my late father **Mr. Joseph Manu** for the outstanding role he played in my upbringing and helping to nurture a vision for my future. The confidence he had in me and the support he gave to my education has brought me this far. Although he is no more, his dream has been realized, this thesis is wholeheartedly dedicated to him.

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## LIST OF ABBREVIATIONS AND ACRONYMS

AEO	African Economic Outlook
AfDB	African Development Bank
AIDS	Acquired Immune – Deficiency Syndrome
B.E.C.E	Basic Education Certificate Examination
CDF	Capital Development Fund
CHIPS	Community Health Planning Services
CSOs	Civil Society Organizations
DANIDA	Danish International Development Agency
DCEs	District Chief Executives
DfID	United Kingdom Department for International Development
EITI	Extractive Industry Transparency Initiative
ERP	Economic Recovery Programme
FCUBE	Free Compulsory Universal Basic Education
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GHEITI	Ghana Extractive Industry Transparency Industry
GNI	Gross National Income
GSS	Ghana Statistical Service
HIPC	Highly Indebted Poor Countries
HIV	Human Immunodeficiency Virus
IBP	International Budget Project
ICMM	International Council on Mining and Metals
IMF	International Monetary Fund

MDF	Mineral Development Fund
MDGs	Millennium Development Goals
MTBF	Medium – Term Budget Framework
MTEF	Medium – Term Expenditure Framework
MTFF	Medium – Term Fiscal Framework
MTMF	Medium – Term Macroeconomic Framework
NGOs	Non- Governmental Organizations
NHIS	National Health Insurance Scheme
OECD	Organization for Economic Cooperation and Development
OPHI	Oxford Poverty and Human Development Initiative
OSI	Open Society Institute
PNDC	Provisional National Defence Council
PFMC	Public Finance Monitoring Centre
PRSP	Poverty Reduction Strategy Process
PTA	Parent Teacher Association
PWYP	Publish what you pay
RWI	Revenue Watch Institute
SAP	Structural Adjustment Programme
SDGs	Sustainable Development Goals
SERAC	Social and Economic Rights Action Centre
SHSCE	Senior High School Certificate Examination
SMEs	Small and Medium Scale Enterprises
UCT	Universal Cash Transfer
UK	United Kingdom
UN	United Nations

UNCTAD  
Development

United Nations Conference on Trade and

UNDP

United Nations Development Programme

UNECA

United Nations Economic Commission for Africa

UNEP

United Nations Environment Programme

USA

United States of America

## **ABSTRACT**

This thesis focuses on mineral governance and how it can contribute to ameliorating human development challenges in Ghana. The study adopted the human centered mineral resource governance approach to assess the mineral governance structure in Ghana and identified that, the current system is a colonial legacy and does not promote human development in Ghana. The study, whilst recognizing the legacies of colonialism, argues that in order for mineral resources to be managed responsibly to promote human development, there should be a paradigm shift to focus on how mineral resources are governed. As a result, the study, relying on the human centered development approach investigates how mineral resources can be governed to promote development in Ghana, with specific focus on the mineral wealth Western Region of the country. Due to the finite nature of mineral resources, the human centered development approach argues that revenues from mineral resources should be invested in human capacity building and medical care delivery. Further, the mining sector should be integrated with other non-mining sectors of the economy to create jobs and provide alternative livelihoods which will go a long way to assist in the general expansion and growth of the country's economy. Although this thesis is a case study of mineral governance in Ghana, it can serve as a springboard to appreciate the role mineral governance can play in promoting people centered development in other sub – Saharan mineral wealth countries.

# CHAPTER ONE

## INTRODUCTION AND BACKGROUND TO THE STUDY

### 1.0. INTRODUCTION

The notion that mining can contribute positively to the economic and human development of mineral wealth countries make a lot of sense especially given the huge revenue, poor countries can generate from the sector to alleviate poverty. However, contrary to this assertion, “empirical record demonstrates that mining is more likely to lead to poverty exacerbation than it is to poverty reduction” (Pegg, 2006: 376).

The World Bank’s study of the economy of mining countries between 1990 -1999 revealed that the per capita gross domestic product (GDP) growth was negative (World Bank, 2003). Today, many mineral wealth African countries remain heavily dependent on mineral resources, gas and oil, such as Nigeria. This situation creates a mono economy, an economic system that is based on one major economic product dependent upon for economic sustenance of that economy (Dode, 2012).

Consequently, Africa is often said to be a paradox of plenty, or ‘resource curse’. This simply means that Africa is mineral rich, but the poorest and most conflicted continent in the world. The continent has about “30% of the world’s mineral reserves, including 90% of the world’s platinum and 40% of its gold” (Southall 2009, cited in Carmody 2011:15). Ghana is one of the African countries recently classified among 53 mineral wealth countries in the world by the International Monetary Fund (IMF) (Oxfam America, 2010).



**Figure 1: Map of Ghana**



**Source: [www. Map softworld.com](http://www.Mapsoftworld.com)**

Ghana, a West African country has a population of 24,658,823 (Ghana Statistical Service, 2013) with a Gross Domestic Product of (GDP) of 7.9% in 2013. The country is still heavily dependent on agriculture which provides about 55% of employment (World Bank, 2013). Besides agriculture, the mining sector also represents a major sector in the country's economy, contributing 5% of GDP, 12% of government revenue and 37% of exports mainly from large scale gold by international companies (World Bank, 2014).

The country therefore, like many other African countries abound in several mineral resources concentrated mainly in the Southern half of the country, covering about five out of the ten geographical regions. Among these mineral resources are gold,

diamonds, bauxite, manganese and recently crude oil. The contributions of these minerals to the economy of Ghana are enormous. The Western Region is often considered the richest region in the country, in terms of mineral resources, due to the variety of mineral resources found in the area.

The country's total export receipts in 2011 "increased by 60.6% to about \$12.8 billion, which was driven mostly by an increase in export earnings from the gold sector and the commencement of crude oil exports. Gold export earnings which accounted for 38% of total export earnings increased by 29.4% to \$4.9. Ghana's mineral sector accounted for about 14% of total tax revenue and 5.5% of the Gross Domestic Product (GDP)" (Bermudez- Lugo, 2013: 20). In the same year, Ghana recorded its all-time highest GDP growth of 14% which was believed to be one of the fastest growing countries in the world at that time. This growth was attributed to the first crude oil export earnings. Similarly, between 2007 to 2012, the Ghanaian Government's share of mineral revenues increased from \$61 million (constituting about 7% of total industry revenue) to \$749 million in 2012 (about 14% of total industry revenues). The Government's share of revenue came from royalties, corporate tax and individuals from its equity interest.

Despite its mineral wealth, the country continues to face several human development challenges. Human development is a process of expanding the freedoms that people value and have reason to value (Alkire, 2007 and Sen, 1999). Both the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) uses elements of poverty such as standard of living, health, education, income levels, empowerment, quality of work and threats from violence to measure the Human Development Index of a country (UNDP, 2014; Conconi and Seth, 2014).

Ghana has nearly 80% of its population living on less than \$2 a day (Oxfam America, 2009). The country ranked 138<sup>th</sup> out of 187 countries in the United Nations (UN) Development Index in 2013 (UN Human Development Report, 2014). In the same report, expected years of schooling was 11.5 years whereas the mean years of schooling was 7.0.

Ghana has not been able to use its natural resources to promote its human development despite its mineral wealth. This fact was acknowledged by Oxfam America (2009:26) when it reported that, “the current Mining and Mineral Act of 2006 has resulted in increase in mining investments and mining boom, but has yielded little in terms of revenues to government and local development”. Before that, the World Bank in 2003 had also reported that it was unclear how Ghana was benefiting from mining.

The country’s human development index has not grown as expected. Consequently, according to the UN’s, Human Development Report (2014), about 28.6% of Ghanaians were below the poverty line of \$1.25 per day. An estimated 12.1% were said to be in severe poverty and 18.7% were near the poverty line.

This implies that in all, about 47.3% of Ghana’s population were around the poverty threshold in 2013. Similarly the report further indicates that from 1980 to 2013, Ghana’s life expectancy rose from 52.3 to 61.1 years (an increase of only 8 years in a period of 33 years) with maternal mortality ratio standing at 350 women and infant mortality of 52 (per 1,000 live births).

Furthermore, 46% of the adult population have not attained education up to the level of secondary education. The expected number of years of schooling as at 2013 was 11.5 with the mean years of school at 7.

Despite the country's mineral wealth and the current Minerals and Mining Act 703 of 2006, Ghana's human development is low.

### **1.1. PROBLEM STATEMENT**

Ghana has since 1986 earned over US \$5 billion of direct investment into mining exploration, with the establishment of new mines and the expansion and rehabilitation of existing ones (Yankson, 2010). The high revenue from mining, together with the investments in the area makes the mining sector a very crucial one that can help to create livelihoods and promote development among the people. However, the human development challenges that the country faces despite its mineral wealth clearly reveals a disconnection between the two variables. It is apparent that the country's mineral revenues have not been utilised responsibly to benefit its people. Accordingly, Carmody (2011) observes that mineral resources in Africa have mainly benefited its elites in collaboration with foreign interests and international powers. The reasons that explain this situation in the development literature have often been situated in the historical realities of Ghana, such as colonial legacies (including bureaucracies and authoritarian rule, centralized command state and international political system of dependence), weak governance, weak institutions as well as corruption and mismanagement of resource revenues (Todaro, 2011; Gary, 2009; Pedro, 2005; Pegg, 2003; Allen and Thomas, 2000).

In the same way, another argument is that political institutions developed to facilitate mineral resources have been inefficient in their strategies resulting in poor economic performance (Acemoglu and Robinson 2001 and 2012, cited in Lokina and Leiman, 2014:18). Whilst recognising these explanations, this study proposes an alternative way to contextualise the issue at hand to ensure that mineral resources are

managed responsibly to promote the well-being and quality of life of the people. Thus, I will argue that by strengthening governance and transparency, placing emphasis on reforms in the mining sector's legal and regulatory framework, will create an equitable environment for allocation of resources in Ghana. Mineral resource governance refers to the "set of strategies aimed at improving the transparency and accountability of governments and private companies during the licencing, exploration, contracting, extraction, revenue generation and allocation" (Acosta, 2010:1). It is within such a context that the study seeks to investigate mineral resource governance in Ghana to rethink how it can best be structured and administered to promote people centered development in the country.

## **1.2. RESEARCH QUESTIONS**

The study is carried out in relation to the following research questions:

1. How can Ghana govern its mineral sector to promote transparency and accountability?
2. How can mineral rents be utilised to promote human development in Ghana?
3. In what ways can the mineral sector in Ghana be structured to promote equitable participation by Ghanaians?

## **1.3. OBJECTIVES**

Ghana has over the years changed its mineral policies with the view of developing one that can contribute to the development of the people. The main objective of this study is to investigate how mineral resources can be governed to promote people centred development, focusing on the three variables of standard of living, education and health. The specific objectives are:

- a) Investigate how minerals can be governed in a transparent and accountable manner to address the human development challenges in Ghana;
- b) Explore the various ways minerals rents can be spent to promote sustainable human development;
- c) Investigate how the mineral sector in Ghana can be structured to promote equitable participation by Ghanaians.

#### **1.4. SIGNIFICANCE OF THE STUDY**

The study is motivated by numerous considerations. Ghana's colonial legacy of centralized command state, where the state owned, controlled and managed resources with weak or no accountability resulted in mismanagement, corruption and siphoning of resources through collaboration between political elites and Western powers (Ochola, 1975, cited in Humphrey, 2010).

Consequently, in response to the failure of the centralised command state, the structural adjustment programme introduced by the Bretton Woods Institutions sought to "roll back" the state as being responsible for the management of resources with the aim of correcting its failures. All the mineral policies that came with these different ideological underpinnings yielded little in terms of government revenues and local development, resulting in conflicts between mining communities and mining companies (Oxfarm America, 2009). It is against this backdrop that this study seeks to address this gap by contributing to designing and developing a mineral governance policy structure that is inclusively participatory, promoting transparency and accountability for development.

Generally, it is argued that mineral resources are mostly associated with corruption and mismanagement of resource revenues as well as conflicts (Gary, 2009; Pedro

2005; Pegg, 2003). Underlying such arguments are weak governance systems, lack of transparency and accountability, low or absent participation of the stakeholders in mining sector, among others, making some to argue that many African countries that are mineral wealth would have been better off without the mineral resources.

The consequence of this is that only very small numbers of the population are likely to benefit from the revenues generated from the minerals. For example, according to Watts (2006, cited in Carmody, 2011:30) “in Nigeria, it is estimated that 80 percent of the hundreds of billions of dollars of oil revenue which have been derived in that country has accrued to only 1 percent of the population. Whilst some sub-Saharan mineral wealth countries may be facing similar challenges of unfair distribution of mineral wealth; this study seeks to promote mineral resource governance for equitable distribution of mineral wealth and people centred development which presents an opportunity to explore the potential mineral resources can play in poverty reduction and thus promote human development in Ghana when they are governed responsibly.

Furthermore, whereas many of the available literature focuses on explaining why Africa is still poor despite resources abundance little has been done on how Africa can overcome this challenge and the strategies that governments and policy makers can adopt on how mineral resources can be managed to create livelihoods for its people. In view of this, substantial literature gaps still exist in this regard. Therefore this study seeks to shed deeper scientific understanding of how mineral resources can be governed for human development. In doing so, it generates knowledge, gives more insight, creates awareness, makes suggestions and provides constructive dialogue among policy- makers ( including both central and local government) , civil society organizations, multi-lateral institutions who are all stakeholders of Ghana’s

development. This could also result in planning and implementation of effective policy strategies that would contribute to people centred development in Ghana.

In addition, since most mining countries are grappling with unregulated mining and environmental degradation, findings from the study will propose ways of streamlining and legalizing mining policies to make it inclusively participatory and thus create sustainable livelihoods. The study provides an opportunity for other sub- Saharan countries to learn from the experiences of Ghana.

### **1.5. OVERVIEW OF RESEARCH DESIGN AND METHODOLOGY**

Creswell (2009) writes that research design refers to “plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis”. Similarly, research methodology is also defined as the choice of research design assumptions about knowledge claims that provides specific direction for procedure in research design. Accordingly, the study adopted the quantitative method and augmented it with qualitative data with the aim of providing comprehensive analysis of mineral governance for development.

Hennink, Huter and Bailey (2011), argue that the purpose of quantitative research method “is to quantify a research problem, to measure and count issues and then generalise these findings to a broader population”. According to Creswell (2003:18) quantitative method is defined as an approach in which “the investigator primarily uses post –positivist claims for developing knowledge ( ie. cause and effect thinking, reduction to specific variables and hypothesis and questions, use of measurement and observation, and the test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on pre-determined instruments that yield statistical data”. This type of research seeks to explain and make predictions with



the intentions of generalizing to other persons and places so that it can contribute to theory by validating or confirming relationships between variables (Leedy and Ormrod, 2003: 100).

On the other hand, Qualitative research is defined by Creswell (2003:18) as an approach “in which the inquirer often makes knowledge claims based primarily on constructivist perspectives (i.e. the multiple meanings of individual experiences, meanings socially and historically constructed with an intent of developing a theory or pattern) or advocacy/ participatory perspectives (i.e., political, issue oriented, collaborative or change oriented) or both. It also uses strategies of inquiry such as narrative, phenomenologies, ethnographies, grounded theory studies or case studies. The researcher collects open-ended, emerging data with the primary intent of developing themes from the data”. The study added the qualitative research design to enable the researcher to study and give meaning to the human live experiences and interactions within specific everyday settings (Creswell, 2013). Moreover, the study used archival documents from accredited sources such as the World Bank, United Nations, official government of Ghana documents, Ghana statistical service, Minerals commission of Ghana, Ghana chamber of mines, human development reports and documents from WACAM (a mining community advocacy NGO).

The study administered questionnaires and interview guides to heads of households and officials of the Mineral commission of Ghana, Ghana chamber of mines, WACAM (a mining community advocacy NGO) as well as a mineral resource and development expert. The study adopted the purposive sampling method. Furthermore, the content analysis method was used to code and interpret respondents' views and perceptions so as to reveal meaning and coherence. The

data analysis process identified common themes in people's descriptions of their views and experiences so as to provide a general description of the phenomenon and help in the comparative analysis of the issues raised.

The study adopted the mixed methods of data collection to utilize the advantages and strengths of both the quantitative and qualitative research designs (Crewswell, 2009). In addition to that, the triangulation of methods also helped in the comprehensive understanding of the nexus between mineral governance and human development. Detailed research methodology will be discussed at length in chapter 3 of this thesis.

#### **1.6. DELIMITATIONS OF THE STUDY**

There are a number of delimitations this study has which should be taken into consideration when its findings are being considered. According to Simon (2011), delimitation are those factors that limit the scope and define boundaries of the study as determined by the conscious inclusionary and exclusionary decisions made by a researcher. Though the findings emanating from the study may be used to generalize the nature of mineral governance in Ghana, and how the human centered approach to development can relate to the mining sector, the conclusions and findings emanating from the study may not necessarily reflect the overall conditions of the country due to limited and localized data from the three selected districts in the Western region of Ghana. Nevertheless, the researcher was challenged by the unavailability of current secondary statistical data from the various districts. However, despite these constraints, the study used the available data to conduct its analysis and findings and thus serves as useful starting point for investigating how mineral resources can be managed to create livelihoods opportunities and people centered development in Ghana.

Furthermore, getting some of the heads of the households to respond to the questionnaires was also challenging. Some of them were of the opinion that many people had previously come to their communities and interviewed them on similar studies but without any meaningful outcome in their lives. Others had almost given up on the mining sector as having the potential to improve their standard of living. However, the researcher upheld the ethical standards and interviewed only heads of households who were voluntarily prepared to respond to the questionnaires.

The study relied on a representative sample of members from each of the households and not every member of the family. Apart from this, the Minerals Commission of Ghana, Ghana Chamber of Mines, Academicians, NGOs and other Civil Society Organizations were part of the study. The study was limited in that it was not be able to collect data from every available source due to resource constraints and limited time.

Furthermore, the study was also limited to mineral resources and not all natural resources. In view of this, findings emanating from the study may not necessary apply to all natural resources.

### **1.7. ETHICAL CONSIDERATIONS**

The study's ultimate aim is to contribute to knowledge which can be used to formulate policies for sustainable development in countries and communities. As a result of this, it is important that the process leading to the conclusion is done with the integrity, professionalism and rigor. O' Leary (2004) writes that researchers generate new knowledge and as a result of that, the process they go through in the performances of their duties places high responsibilities and obligations on them, known as ethical considerations. According to Mikkelsen (2005), research ethics

refers to modes right behavior that a researcher must adopt from research design, data collection and results analysis for publication. The need for ethical considerations is underscored by the fact that the knowledge produced must be reliable and of high integrity. This study adopted high ethical standards during the research design, data collection, data analysis and writing the final report.

Before the questionnaires were administered to the heads of the households and interview guide to the officials of the Ghana Chamber of Mines, Minerals Commission, WACAM (an NGO into advocacies in mining communities) and a mineral resource and development expert, they were informed about the purpose and objectives of the study their consents were sought . Respecting individual rights and avoiding emotional harm are reasons why respondents and informants are made to give their informed consent. The respondents and participants were also told the type of questions they were going to respond to, how long the exercise was going to take and how the information generated from the study was going to be used and protected.

Furthermore, the study also sought permission from all participants verbally and through a written and signed consent form where they were also told of the need to record the discussion. Before the researcher entered into the communities where the field data was collected, the researcher wrote formally to seek for permission of entry and also to interview the people in the communities from the district municipalities, chiefs and the local assemblymen and used them to also inform the community members of the study. Added to this, the researcher ensured that no respondent was exposed to any form of harm either physically, psychologically or emotionally.

Another issue of ethical consideration that the researcher treated importantly was the issue of confidentiality, which involves protecting the identity of people who provided research data so that no third party gets access to such data, was a key consideration for the study. In particular, high standards of anonymity were maintained throughout the study to protect the interests and identity of the respondents. Prior information of high standards of confidentiality and anonymity helped to ensure the accuracy and quality of the responses given. The researcher expressed sincere appreciation to the respondents and participants for the information and their time.

Plagiarism is also another important ethical concern. The study acknowledged and cited all information sources and acknowledges that failure to do so is tantamount to dishonesty and theft. The researcher adhered strictly to the codes of ethics of researchers and the University of Fort Hare ethical principles.

## **1.8. LAYOUT OF THESIS**

The study is divided into five chronological chapters. Each chapter gives a brief of what the chapter is about, to ensure the free flow of ideas when reading.

**Chapter one** is the introductory chapter and gives some background information about the revenues that Ghana derives from mineral resources as well as the human development indicators in Ghana. The chapter covers the statement of the problem, objectives of the study, research questions, significance of the study, the delimitation of the study, ethical considerations and the lay out of the study.

**Chapter two** reviews the existing literature on mineral resource management. The chapter further develops a theoretical framework that served as a guide for data collection. As a result, the study reviews theories such as the lower growth theory,

anti- lower growth theory, neo- colonial dependency model and the proposed human centered mineral governance concept.

**Chapter three** presents the research design and methodology. The study adopted the survey approach to collect data but validates it with interview responses. It is important to note however that, the study is more skewed towards quantitative methodologies and so adopted more quantitative data but used responses of in-depth interviews to buttress the quantitative data finding from the field for critical discussion.

This chapter further discusses the data collection methods, target population, units of analysis, sampling and sampling technique as well as data analysis.

**Chapter four** presents the data presented from the three districts of the Western region. Both primary and secondary data are presented. It then discusses the findings of the study and draws conclusion. The chapter proceeds with an interpretation of the analyzed data in line with the study's objectives and research questions.

**Chapter five** provides a critical evaluation of the study. Summarizes the main findings of the study and engages in a critical discussion of the findings.

**Chapter Six** is the concluding chapter and presents an in-depth discussion of how Ghana can adopt the human centered mineral governance model to harness the potential of mineral resources for human development. The chapter also identifies new gaps for further research..

## **1.9. CONCLUSION**

This chapter argues that for mineral resources to benefit local people, it must be governed responsibly. Many mineral wealth African countries are characterized by weak institutions, corruption and mismanagement, low or sometimes absent accountability and participation among others. As a result of that, many of these countries continue to face numerous development challenges particularly in areas of education, health and the general standard of living. These indicators generally define human development. In order for mineral wealth countries, especially in Africa to address their mineral related challenges and achieve sustainable human development, there is the need to for their mineral governance policies to be people-centered.

The remaining of this thesis is divided into six chapters. Chapter two will consist of a review of the literature. Chapter three will propose an alternative model of human centered mineral resource development for Ghana. Chapter four will outline the research plan and process. Chapter six will give the summary, conclusion and conclusion and recommendations of the study.

## **CHAPTER TWO**

### **TOWARDS A THEORY OF MINERAL GOVERNANCE**

#### **2.0. INTRODUCTION**

The aim of this chapter is to review both theoretical and empirical literature relevant for the study. A review of the literature will help to contextualize the study and show its significance and contribution to the field. It begins by discussing the meaning of mineral governance. Following the discussion the study outlines the various theoretical underpinnings. The discussion identifies the various explanatory causes of good governance, its features and consequences to mineral wealth. After discussing the various theories, the chapter then outlines a theoretical framework which was used as a guideline to collect data to test the hypothesis that, mineral governance can promote human development.

There is a wide-ranging theoretical and empirical literature on the role of mineral governance. However, all these views can be broadly grouped into three main schools of thoughts, namely, the rent seeking government theory, the revisionist theory and the neo-colonial dependence model. In the following section I will begin with the meaning of mineral governance.

#### **2.1 CONCEPTUALIZING MINERAL GOVERNANCE**

The notion of mineral governance is a new concept which seeks to explain why mineral rich countries are unable to sustain the well-being of their people.

The term mineral governance can be defined as a set of strategies aimed at improving the transparency and accountability in the management of mineral resources (Acosta, 2010). The transparency and accountability initiatives cover areas of licencing, exploration, contracting, extraction as well as mineral revenue



generation and allocation. The relevant stakeholders involved include government (the executive, Parliament and other state institutions); private companies (whose work relates to mining); Non- Governmental Organizations; the media and civil society organizations (including community organisations).

Transparency in mineral governance means the visibility of decision-making processes in the sector, the clarity with which the reasoning behind decisions is communicated and the ready availability of relevant information about governance and performance in the sector. As a result, it means making decisions about the mining sector and investments accessible to stakeholders and the local people. Transparency in the mining sector is required in who has made a decision; the means by which it has been reached; and its justification. For example, was the decision made according to the authority conferred on or delegated to an individual or body; according to procedures such as majority-rule voting or consensus; or on the basis of expert opinion, professional judgment, and formal decision aids such as multi-criteria analysis or benefit cost analysis.

On the other hand, Accountability refers to the allocation and acceptance of responsibility for decisions and actions as well as the demonstration of whether and how these responsibilities have been met. Accountability is an issue for mineral governance in contexts where the effectiveness of decision-making processes is essential for their authority and credibility. Where accountability is unrealizable through direct democratic involvement and is more informal, citizens' needs for proper access to information, meaningful consultation, and for enhanced opportunities for active participation become more significant. Compliance with regulatory requirements is an important component of good governance for a public entity. Accountability in the mining sector also requires compliance, which means

the extent to which governments and other actors in the mining sector observe relevant legislations, standards and codes and have a compliance program that is integrated with their, operational and financial plans; systems to monitor conformity, such as internal and external audits; and processes to meet external reporting requirements. Reporting requirements should be the minimum necessary to provide financial, governance and performance accountability. (Lockwood et al. 2010).

It is important to note that although Acosta's (2010) definition gives an overview of the key concepts of mineral governance, it fails to include other important governance concepts such as participation and equity, which are also essential in mineral governance. Participation refers to opportunities available for stakeholders to be included in and influence decision-making processes and actions in the mining sector. Governance is regarded as inclusive when all those with a stake in the mineral governance processes can engage with them on a basis equal to that provided to all other stakeholders. As solutions to mineral governance challenges often demand substantial changes in practices, their implementation requires participation of as many of the affected actors as possible. It is important for governance actors to have access to many different perspectives and kinds of knowledge, because no single actor has the resources to generate solutions to mineral resource related problems. Inclusive mineral governance is about governing actors seeking input from multiple sources; having an awareness of and valuing diversity; and having policies and structures to foster stakeholder contributions and engagement.

Moreover, equity is another important mineral governance initiative and refers to the respect and attention given to stakeholders' views; the consistency and absence of personal bias in decision making; and the consideration given to distribution of costs

and benefits of decisions. Those charged with promoting mineral governance arrangements are expected to be fair and equitable in the exercise of the authority conferred on them, particularly in relation to the distribution of power, recognition of diverse values, consideration of current and future generations, and the development of mechanisms to share costs, benefits and responsibilities of decision-making and action. Addressing many mineral resource problems is complicated by confusion over who should be responsible for what (Dovers 2005). Given the cross-cutting nature of such problems, it is especially important to ensure that responsibilities and roles do not fall unfairly on particular actors, such as private interests being expected to shoulder the bulk of the costs for public good outcomes or future generations being burdened with the costs of present generations' actions. Fairness in mineral resource use also implies practices founded on stewardship of mineral resources for protection of biodiversity and ecological processes.

It is important that the mineral governance structure treats stakeholders with respect and supports their dignity which is a moral obligation and has the potential to foster acceptance of outcomes. Fair procedures should guarantee that like cases are treated alike, and that where they are irrelevant, the gender, ethnicity, religion, disability and socio-economic status of a person do not determine decision-making processes or outcomes.

Acoster (2010) posits that, mineral governance has two main goals, firstly, it seeks to improve the processes through which stakeholders and institutions can effectively bring governments of mineral rich countries to account and secondly, to effectively contribute to better outcomes, such as helping to improve the socio- economic conditions of people or poverty alleviation. These two goals, though different, are closely related. This is because, when the democratic conditions and practices in the

mining sector are enhanced, they will more likely result in better development outcomes.

For these goals to be achieved, problems associated with mineral governance will have to be addressed. These challenges include administration challenges in terms of the necessary qualified staff, information, infrastructural, technology and financial resources to be able to manage the sector effectively; weak political institutions and civil society organizations as well as lack of effective policies to ensure that the mining sector benefits local people. These challenges goes beyond the executives of governments to include key institutions such as parliament, mandated state agencies, the security services and the judiciary who are supposed to have oversight responsibilities, support and control over the mining sector.

In order to ameliorate these challenges and promote good governance in the mining sector, countries need to strengthen those institutions that are essential to controlling, directing and overseeing the mining sector. Parliament in particular needs to be given the requisite skills to perform their functions effectively. There is also the need to build the capacities of local community groups and civil society groups to enable them make informed decisions and contribute meaningfully to the governance process. Furthermore, good governance in the mining sector can also be achieved through the enactment of comprehensive mining legal and policy frameworks to regulate the sector whilst promoting transparency, accountability, participation and equality for development.

Based on the foregoing discussions of mineral resource governance, the following theories will be discussed. They are the rent seeking government theory, the revisionist theory, the neo-colonial dependency theory and a proposed human centered mineral governance theory.

## **2.2. RENT SEEKING GOVERNMENT THEORY**

Mineral rich countries are more likely to experience less economic growth and increased poverty than non-mineral rich countries (Auty, 1993, Sachs and Warner, 1995). The factors which account for this are several, the extractive sector tends to be highly capital- intensive hence in relative terms creating few jobs and few spin- off activities. Another factor that is counterproductive to poverty reduction in mineral rich countries is that, wealth creation often takes place in few business ventures in those countries leading to higher risks of rent seeking and corrupt practices among government officials or politicians.

Several discussions on the correlation between natural resources and economic development have often focused on the neglected connection between governance and development.

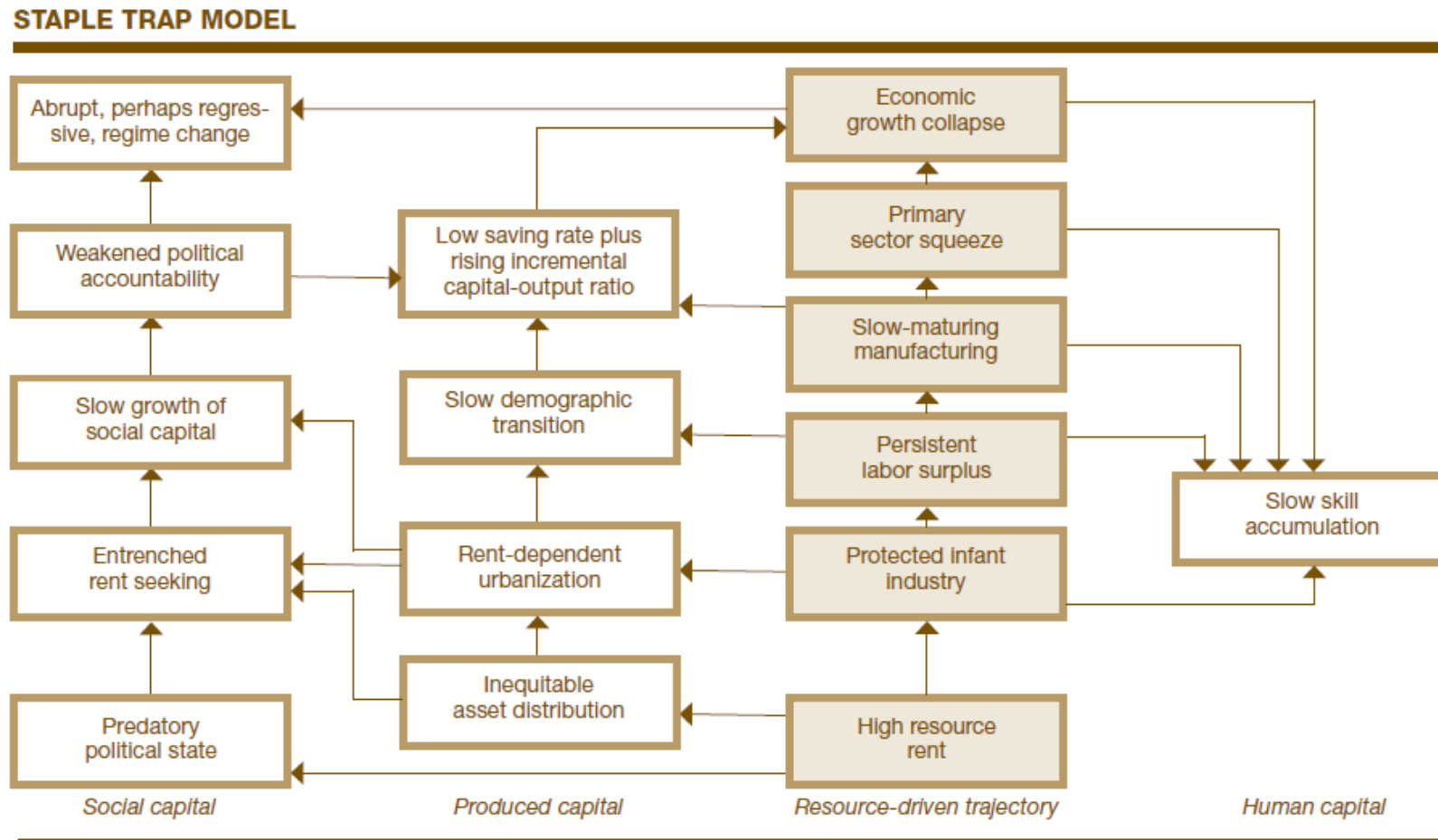
The main focus of this theory is the often neglected connection between politics and the economy in mostly developing countries. There are three main types of rents identified, namely, natural resource rents, rents derived by government intervention to change relative prices and geographical or foreign aid rents (Tollison, 1982). Rosser (2006) also explains that whereas for example oil profits, taxes from exports and royalties are economic rents foreign aid is an example of political rents and rentier states are states or countries that receive considerable and regular amount of rents. According to Auty (2007), three kinds of rents constitute a large percentage of the Gross Domestic Product (GDP) of developing countries, about 15- 30% or even more, and as a result of this has the capacity to distort the political economy. The main argument of the rentier state theory is that the recipients freely dispose rents, this is simply because the ruling elites often spend their rents for their own benefits as the state becomes very much involved in the economy. The ruling elites also

spend the rents on conspicuous consumption than on production. They also entrench and strengthen their positions of power to enable them access more rents, establishing a clientele state. Apart from this, they further spend the rent on myopic and unsustainable public expenditures. The consequences are weak state institutions, and unguaranteed socio – economic development that are not sustainable (Beck, 2007).

Auty (2007: 9) “hypothesised that the higher the rent/ GDP ratio and the more concentrated the rent’s deployment upon a handful of political and economic agents, the more likely it is that; (i) the political state is predatory ; (ii) the rent is cycled inefficiently through patronage channels and (iii) the economy will lose its underlying comparative advantage . High rents raise the stakes for its capture: capturing such rent offers the elites more immediate reward than using it to promote long term wealth creation, the benefits of which may accrue to successor political and economic actors”. An empirical study by Beavan et. al, (1987) and Baldwin (1956) suggest that rents that are often diffusely distributed such as that from peasant farming tends to be effectively deployed than rents concentrated upon economic agents, as that generated from taxing more large scale capital intensive mines and plantations (Baldwin,1956; Beavan et. al, 1987).

Auty (2007)’s staple trap model explains how broader social welfare is affected by high rent resources.

Figure 2: The staple model



**Source: Auty (2007: 12)**

Auty (2007:12) posits that high rent intensifies the 'Olson effect' (Olson 2000, cited in Auty 2007:12) which is when ventured interests eventually manipulate economic policies with the aim of diverting the efforts of government, to seize and distribute rent rather using these rents in development interventions that would create broad – base wealth. Furthermore, from figure '2' continuous dependence on export of primary products have the tendency of delaying competitive industrialization and also minimise the in- take of surplus labour from particularly rural areas (demonstrated by the shaded column in figure 2) Moreover, Auty (2007) explains that, continues urban unrest may compel governments to create non market support jobs. Governments also protect the infant industries and extend its bureaucracies which normally expand the rent seeking sector slowing down the economic diversification of these countries.

The rent recipients' countries demand eventually increases exceeding the primary sector's ability to meet these demands which is normally a consequence of decline in the global price of the primary commodity or structural changes. Governments are compelled to effect economic reforms through promoting markets. By so doing opportunities for rent seeking are reduced. This normally attracts strong resistance from the recipients of these rents. As a consequence, governments of high rent economies tend to find it as politically expedient to increase the rent generated from the primary commodities, making the primary sector skimp mainly on wages and maintenance. This results in creating a staple trap where as a result of the expansion of the rent dependence the sustainability of the primary sector on which it depends is destroyed. This reduces investments and capital rates making the economies of these rents dependent countries vulnerable to external decline shocks.



A collapse of the growth of the economy may eventually lead to staple trap, destroys and runs down all forms of capital. The economic growth collapse last for long. The protracted nature is also because the rent beneficiaries and recipients often oppose sustainable economic reforms.

The rentier state theory also proposes the hypothesis that natural resource wealth, especially oil wealth makes states less democratic. Ross (2001)'s study revealed quantitatively that "oil is obstacle to democracy not only in the Middle East region , but that it does harm oil to oil exporters elsewhere"( Ross 2001:325). Moreover, he makes the assertion that there is lack of democratic pressure on these governments. In substantiating this argument, Ross (2001) advances several causes which could bring this. The rentier state is closely associated with the "rentier effects" which is based on the notion that the ruling political elites can employ rent resources to prevent social pressure by dismantling democratic institutions, and by so doing gain independence from the public. According to Meissner (2010), there are three ways in which this can happen. The first is the "taxation effect". With the government getting more money from oil, they are less likely to impose high taxes or sometimes none at all. The public therefore is less likely to demand these governments to account for their stewardships making these governments less responsible to the population ("no representation without taxation"). The 'spending effect' also explains that governments of rentier states often gain legitimisation not by free and fair elections but by buying legitimisation through the use of resources for populist social welfare interventions such as subsidizing basic commodities as food, petrol, oil fuel, coal , electricity and also create more jobs by expanding the public sector. The population often times tend to be ignorant about the short sightedness nature of these interventions and policies and how they can dislocate the economy often reward

these governments with by supporting them. This spending effect is targeted at the population as a whole. On the contrary, the “formation effect” is geared towards independent societal group organizations or movements. The rentier state government often uses its resources to influence by co-opting their leaders or even sometimes buying them. The “repression effect” also is the use of resource revenues by rentier state governments to build up and strengthen the security apparatus with the view of using it as an instrument to suppress any democratic aspiration (Ross, 2001:335; Bardt, 2005:7)

Whilst all the above explanations provide logical explanations and reasons of the resource curse, one very important acknowledgement is the lack of a common agreement among authors on the way forward to overcoming the resource curse.

Moreover, mineral wealth countries have the tendency to experience several negative impacts on good governance. Studies by authors such as Collier and Hoeffler (2000); Hoeffler (2000); Sachs and Warner (1995); Gelb (1988) identifies some of the harmful effects:

Firstly, the concept of corruption and resources are intertwined. This is because Moss and Young (2009: 5) have explained that “many of the resource curse theories use corruption as a key link in their causal chains; others treat corruption as a negative outcome in its own right”. Countries with high rents and other capital intensive activities provide a fertile ground for corruption to breed. This results in a positive correlation between the two variables (Leite and Weidman, 2002).

Similarly, Gylfason (2001) also finds a strong correlation between natural resource exploration and corruption and adds that an estimated “15% increase in the share of natural capital in national wealth is correlated with a 20 percentage point drop in the

corruption perception index. Vicentes (2009) study of Sao Tome also revealed that corruption increased by 40% in vote buying, customs and education.

Secondly, authoritarianism is the lack or poor democratic governance. Several studies have found a correlation between authoritarianism and natural resources. A study conducted by Diamond (2008) on all the 23 oil and gas dependent countries, revealed that they were all at some point under authoritarian rule specifically between 1974 and -2008. This is because most of these countries if not all of them are rentier states, they have little need for taxation due to the oil wealth. This prevents them from being accountable to their citizens. In this way, resources are spent to benefit political elites and not the general public.

Thirdly, Moss and Young (2009:5) write that there is a “robust correlation between natural resources and the likelihood and duration of civil wars” and that several studies have confirmed that dependence on natural resources can be a source of and fuel conflict and lead to the outbreak of civil war compared with other variables such as social fractionalization and religious or political polarization.

Besides, Collier and Hoeffler (2000)’s model has explained that when export of primary commodities constitutes about 33% of a country’s GDP, the potential for conflicts also correspondingly increase to 22%. Furthermore, a country without such primary commodity export has only about 1% chance of conflict. It must be noted however that there is a huge disagreement about the explanations to this in the available literature; however, the correlation remains undisputed.

Fourthly, as discussed earlier, several studies have concluded that dependence on natural resources can indeed have negative macro –economic consequences. This happens because the dependence on natural resources makes the economy of

these countries vulnerable to external price shocks and further narrows the export base. The Dutch disease, already discussed is one of the theories that explain this situation. For example, the Dutch disease was first used to describe Netherland's discovery of oil in the 1970s and how the oil sector attracted labour and capital from all other sectors to the oil boom sector (Corden, 1984). The crowding out effect of the natural resources is what is likely to cause the economic depression (Sachs and Warner, 1995).

Fifthly, several studies that have been conducted on the rent seeking theory could be viewed as a break-down of the social contract between the state and the citizens of resource rich countries. The rentier state do not increase tax or introduce new ones thereby reducing its responsibility and accountability to the citizens. An increase in rent means an increase in the incentives of the political elites and civil servants rather than the citizenry in general (Karl, 1997).

Moreover, Moss and Young (2009) have posited that at the macro level, a decreased in the rule of law is a way of measuring the break-down of social contract and tend to be very common in natural resource dependent countries. Sala-i- Martin (2001) asserts that the overall effects of natural resources on the growth of the economy can be attributed to the rule of law. Furthermore, on social services such as education, Gylfason (2001) found a strong negative correlation between dependence on natural resources and secondary school enrolment.

Sixthly, it is rational to argue that natural resources wealth should increase income and reduce poverty, however, empirical records suggests that the opposite is true (Pegg, 2005). Consequently, from 1960-1990, resource poor countries' economies grew two to three times faster than rich natural resource dependent countries (Auty,

2001) Some of the concepts already discussed such as macroeconomic instability, conflict, and corruption could explain why natural resources could ultimately lead to high poverty rates. Natural resource rich countries may not invest their resources in development especially through education. This is mainly because there is low demand for highly skilled labour (Gylfason, 2001). In view of that Mehlum, Moene and Torvik (2006) have also added that there is low investment in human capital which eventually impoverishes the people.

The causalities explanation of the socio-economic deficiencies of the governance and rent seeking theory does not help to understand the non-transformative development of Ghana. Ghana does not solely depend on mineral resources but also agriculture, and as a result price volatility of mineral resources in the international market does not throw the country's economy in disarray. Apart from this, the country's competitive multi-party democracy coupled with its strong media and civil society organizations does not give political elites the unlimited space to abuse mineral rents especially for their personal gains. In the past two decades since Ghana entered into the 4<sup>th</sup> republic, political power has rotated between two diametrically opposed political parties, with each succeeding political party investigating alleged corruptions and misappropriation of state funds by previous government officials. This serves as accountability at the political level.

### **2.3. REVISIONIST THEORY OF NATURAL RESOURCE MANAGEMENT**

Since the resource curse theory does not reflect the situation in Ghana, it is necessary to discuss an alternative approach. The revisionist theory arose as a direct response to the lower growth theory. Scholars including, Ahammad and Clements (1999), Davis (1998) Davis and Tilton (2002) and Goodland (2002) are proponents of this theory. The Revisionists argue that the reported negative performances of mineral wealth economies are only case specific and not as general as being projected to look like by the lower growth theorists, and that the factors that might cause a mineral wealth country to perform poorly economically and socially could be several and mixed. They contend for example that mineral a wealth country such as Botswana has a fast growing economy whereas as Zambia is encountering some negative economic growth.

Furthermore, if the mining sector were to be excluded from the economies of these developing countries, their economies would even be lower and worse off. As a result of this, mineral wealth countries can generate economic growth provided the wealth is used prudently.

Refuting the arguments of the resource curse theory, the Revisionists advance their position that there is no empirical evidence to demonstrate that countries that are mineral dependent have either slower or faster economic growth. For these scholars, the main problem of mineral wealth developing countries are not economic but political and can be associated with the capacity of government and the general society to react to large revenues from mining production. In more instances, these revenues are squandered and not used for productive investments.

The Revisionists criticise the lower growth theorists for not offering a workable alternative, assuming that mineral wealth countries would be better off leaving their minerals undiscovered or unexploited.

The challenge of the resource curse has been both theoretical and empirical. The main argument is that the cause of the natural resource curse by mineral dependence is weak institutions rather than the resources per se. This therefore means that the resources per se are not a curse but the institutions that surround in its very chains are the reasons for the curse. Therefore, the problem is with the way the rents from the resources are managed rather than the rents themselves or the resources themselves that create the problem for natural resource rich dependent countries (UNCTAD, 2013; Brunnschweiler and Bulte, 2008)

Similarly, on the issue of industrialization and natural resources, Morris et al. (2011) have also argued that the weak manufacturing capacity in several resource dependence countries is the reason for the apparent correlation that exist between weak industrial development and low diversification on one hand and natural resource development.

The revisionist argument holds that there are several countries that have used natural resources as a catalyst to accelerate industrial development. Countries such as Canada, Norway, Australia, USA, Germany, UK and Sweden which are leading world economies are in fact strongly driven by natural resources and depended on natural resources for their early industrialization.

Some developing countries such as Botswana, South Africa, Malaysia, Argentina and Indonesia have also benefited from using their natural resources for development (UNECA, 2013; Raines et. al, 2001). However, Buur et al. (2013) argue that the extent to which this arguments can be applicable to especially African

countries depends on the political economy of that country, and that it cannot be deduced from experienced of success stories of developed countries such USA, Australia, Canada, Sweden and U.K or some successful countries such as Botswana, South Africa and Indonesia.

Whilst the debate about the causes and the effects of natural resource curse continues, there is the need to focus on the huge untapped natural resource base in Africa. According to the African Development Bank (AfDB) for example, since 2000, natural resources has contributed to 35% of the growth in the African continent. It also contributed to 80% of the continents exports in 2011 and over 60% of foreign direct investment (FDI) (AEO, 2013). When the agriculture sector is included, then the contribution of natural resources to employment in resource dependent African countries in 2013 was 50 to 60%.

In the mining sector, 400,000 jobs (including direct and indirect jobs) have been created by international mining companies (AEO, 2013; McMahon and Tracy 2012). In the sector, additional six million Africans are employed informally as artisanal miners. Despite this number of people in sector and the role it is playing to reduce unemployment and poverty, it is yet to receive the needed attention from policy makers (Hilson and Garforth, 2013; Bloch and Owusu, 2011, Nylandsted Larsen et. al, 2009; Therkildsen and Bourgouin, 2012).



**Table 1: Africa's endowment in the extractive industry and future potentials**

	2000			2010			Real output growth 2000-10 in %	Difference in countries	Future potential
	Africa's share of global production in %	Value of Africa's production (2010 USD million)	Number of countries 2000	Africa's share of global production in %	Value of Africa's production (2010 USD million)	Number of countries 2010			
PGMs	55	10588	2	74	14191	4	34	2	By 2017 33% output increase
Cobalt	43	490	6	62	1775	8	262	2	By 2017 87% output increase
Diamonds	45	4265	16	54	4967	17	16	1	By 2017 14% output increase
Chromite	51	1578	4	42	2442	4	55	0	
Manganese	32	493	4	30	3131	8	535	4	
Phosphates	28	4607	10	26	5662	10	23	0	
Gold	24	25568	36	19	19947	39	-22	3	By 2017 53% output increase
Uranium	17	111	3	19	1013	4	813	1	
Copper	3	2871	11	8	7806	12	172	1	By 2017 86% output increase
Nickel	5	1225	5	5	1535	5	25	0	
Iron ore	5	4637	10	4	6404	9	38	-1	By 2017 466% output increase
Mining total	14	59592	44	12	73286	44	23	0	
Oil	10	216001	18	11	284875	19	32	1	
Gas	5	39036	14	7	68423	18	75	4	15-20% growth additional to normal expansion from new fields in Mozambique and Tanzania
Coal	6	21266	15	4	23759	13	12	-2	
Energy total	10	276303	11		377056	36			

**Source: AEO, (2013:21)**

The argument of the resource curse theory may suggest that mineral wealth countries will be better off not mining their minerals. However, as already noted, the Revisionists arguments advocate that mineral “resources can be exploited and managed to contribute to poverty reduction and growth in Africa” (Pedro,2005: 13) This argument is premised on the notion that Africa and other non- African mineral wealth countries are endowed with different natural resources of which mineral resources are part and that when they are exploited under conditions that are appropriate, it can spur and accelerate development in mineral dependent countries.

Most of African foreign direct investment (FDI) has come from the natural resources sector particularly minerals, oil and gas. Consequently, the mining and oil sector continues to attract the largest sources of earnings from exports.

It is in view of this that David and Tilton (2002) have advocated that, the question is not whether or not mining should be done, rather the public policy question should be how to ensure that the mining sector is linked with other non-mining sectors to create livelihoods and contribute to poverty reduction as well as the growth of a country's economy and people.

Mineral resource abundance can be harnessed efficiently to drive sustainable development. Economic and social development in the world's affluent countries such as Canada, USA, Sweden and Australia was fuelled mainly by revenues derived from natural resources. A country's dependence on mineral resources does not necessarily predict that there will be a resource curse.

### **2.3.1. Governance and natural resource development**

Contrary to the view of the Resource curse theorists, the Revisionists theorists advocate that in order for the booms and burst to be handled by mineral dependent countries, there should be strong institutions, democratic governance that is responsive and technical capacity abundance (Rozner and Gallagher, 2007).

The concept of natural resources can be approached in several ways which may include a distinction between renewable natural resources (such as forests, water and biodiversity) and non-renewable natural resources ( such as metal minerals, including bauxites, gold, diamonds and manganese; and mineral fuels such oil and gas) Ushie, 2013; Bermudez – Lugo, 2011).

The organization for Economic Cooperation and Development (OECD) has defined national resources as “natural assets (raw materials) occurring in nature, that can be used for economic production or consumption. These are naturally occurring assets that provide use benefits through the provision of raw materials and energy used in economic activity (or that may provide such benefits one day) and that are subject primarily to quantitative depletion through human use . They are sub divided into four categories: mineral and energy resources, soil resources, water resources and biological resources” (Ushie, 2013:3)

In the 21<sup>st</sup> century, natural resource governance has become an integral part of international development both as a discipline and practice. Governance as a concept has gained global attention among policy makers and been debated on since the mid -1990s. During that period, it became evidently clear that there is a “vital connection between open democratic and accountable systems of government and respect for human rights and the ability to achieve sustained economic and social development (OECD/DAC, 1995:5)

Governance as a concept has been defined severally, for example, the World Bank defines it as “the traditions and institutions by which authority in a country is exercised for the common good. This includes:

- (i) The process by which those in authority are selected, monitored, and replaced
- (ii) The capacity of the government to effectively manage its resources and implement sound policies , and
- (iii) The respect of citizens and the state for the institutions that govern economic and social interactions among them ”

World Bank. Org. (assessed on the 20<sup>th</sup> of October, 2016)

In the same way, according to the United Nations Development Program “Governance is the system of values, policies and institutions by which a society it’s economic, political and social affairs through interaction with and mong the state civil society and private sector. It is a way a society organises itself to make and implement decisions- achieving mutual understanding, agreement and action. It comprises the mechanisms and process for citizens and groups to articulate their interests mediate their differences and exercise their legal rights and obligations. It is the rules, institutions and practices that set limits and provide incentives for individuals, organizations and forms. Governance, including its social, political and economic dimensions, operates at every level of human enterprise, be it the household, village, municipality, nation, region or globes”.

UNDP Policy Document on Governance for Sustainable Human Development, 2004:6

Similarly, in the view of the European Commission “Governance concerns the state’s ability to serve the citizens. It refers to the rules, processes and behaviours by which interest are articulated, resources are managed and power is exercised in society. The way public functions are carried out, public resources are managed and public regulatory powers are exercised is the major issue to be addressed in this context. In spite of its open and broad character, governance is a meaningful and practical concept relating to the very basic aspects of the functioning of any society and political social systems. It can be described as a basic measure of stability and performance of a society. As the concepts of human rights, democratization and democracy, the rule of law, civil society, decentralised power sharing, and sound

public administration gain importance and relevance as a society develops into a sophisticated political system, governance evolves into good governance”.

Communication on Governance and Development, October 2003, cited in UNEP, 2013: 13).

In the definitions above, the common theme that runs through is how society can organise itself and also the kind of relationship that exist between a state and its people. The definition by the UNDP distinguishes three very important spheres in society, namely the state, civil society organizations and the private sector, however, the definition by the World Bank and the European Commission are more state oriented. Governance therefore must incorporate these three spheres and other relevant institutions that can facilitate the management of resources of a country for the greater good of its the citizenry.

From the above discussion, governance therefore can be described as the processes that are needed to deliver public goods and services. Critical to this process are the mechanisms needed and how they are used to negotiate various interests by different stakeholders in society (Johnson, 1997) and also the processes and tools used for in “steering of a people’s socio- politico - economic development” (Kauzya, 2003:1)

It is governance that balances the utility maximizing stakeholder’s interest and the interest of the society in general. For this balance to be carried out effectively, it involves the establishment of institutions and the creation of mechanisms to enforce and supervise these institutions to work effectively and efficiently (Wunsch, 2000).

Similarly, governance can also be distinguished from government in that, the former is broad in nature (which includes wide range of stakeholders such as actors of

government, the civil society as well as the private sector) the latter is narrow (including the central and local government).

Several donor countries and organizations have made good governance a pre requisite for development aid. In view of this, most if not all of these donor countries and organizations have their own indicators to distinguish good governance from failing governance. However, an overview of the development literature summarises the following indicators for quality governance:

- (a) Strong institutions: This includes the existing of formal laws as well as rules and informal institutions such as traditions norms and codes of conduct;
- (b) Participation and voice: This concerned with consensus orientation. Broad, consensus that is reached by mediating different interests of the people.
- (c) Accountability: This is related to transparency. It involves accessible information, institutions and processes.
- (d) Equity: This relates to the rule of law. The extent to which the governing laws are enforced fairly, laws such as human rights should be applied impartially
- (e) Direction: This is about leadership and involves the strategic vision of the leaders. The leaders are to have a long term understanding of the development needs of the people and be able to device strategies to achieve them.
- (f) Performance: The institutions and state organizations must respond to the needs of the people as well as be efficient and effective in the use of resources to achieve outcomes.

(UNEP, 2013)

Governance concept started rising in the development debate during the 1990s. Most development authors and donors have argued for good national and local

governance as an important pre requisite for sustainable development. Specifically on local government, Kauzya (2003:1) writes that “local governance is being promoted in a number of African countries because it is believed that it provides a structural arrangement through which local people and communities with the support from other national, regional as well as international actors can participate in the fight against poverty at close range”.

The institutions should be fair and equitable in carrying responsibilities, it must be familiar to the people being governed and culturally appropriate as well as promote the participation of the relevant stakeholders and offer the mechanisms for resolving conflicts that may arise and provide governance that is practical to the needs of the people (DANIDA, 1999; Kauzya, 2003)

On the issue of the actors, good governance promotes the inclusion of all stakeholders which includes government, civil society, the private sector as well as the local people. Determining who a stakeholder is, the procedures for their selection, what they will do and how they will do it are all very vital for the understanding of governance. The key elements here include, promoting broad participation, transparency, legal responsibility and legalising, as well as entrenching and respect for the rule of law.

The overall effects of governance are normally evaluated and measured against the set out goals. The most pivotal question to assess governance effects is, what is the extent to which the material and or immaterial goals can be achieved? Goals may not always be explicitly formulated in a way that can be measured and could also vary between different actors (Kauzya, 2003).

According to Siegle (2007:37) “eighty percent of all hydro carbons rich countries have autocratic governments. Nearly half of the world’s 44 remaining autocracies in

turn are rich in hydro carbons or minerals”. It is not accidental that this pattern is occurring, the “control over revenue streams generated by natural resources strengthens the abilities of autocratic leaders to feed patronage networks and perpetuate their hold on power irrespective of the living condition for the majority of the population” (2007:37) The author argues that standard of living for most people in mineral rich autocratic countries are worse consistently than other countries with similar income levels.

Therefore for Siegle (2007) autocracy, poverty, corruption and instability are both defining and perpetuating characteristic of the resource curse.

Furthermore, it has also been argued that as the revenues of mineral wealth countries booms, the autocratic leaders in these countries have less motivation to forge consensus “with domestic opponents and can behave more brazenly on the international scene” (2007: 37).

Thomas Friedman describes this situation as the first law of ‘petro politics’. Oil prices and freedom pace tends to move in entirely different (opposite) directions, specifically in oil dependent countries (Friedman, 2006).

Siegle (2007:37) states that “on a democratic scale of 0-10, the average hydrocarbon rich country scores a zero. The global average is 6.5. The differences have enormous consequences on how revenues generated from the mineral resources are used.



**Table 2: Resource Rich countries, 2000-2003**

**RESOURCE-RICH COUNTRIES, 2000–2003<sup>a</sup>**

Hydrocarbon-Rich Countries	Freedom House Rating (2–14)	Polity IV Rating (0–10)	Mineral-Rich Countries	Freedom House Rating (2–14)	Polity IV Rating (0–10)
Algeria	5	1	Botswana	12	9
Angola	5	1	Chile	14	9
Azerbaijan	5	0	Congo (DNC)	6	n/a
Bahrain	6	0	Ghana	13	7
Brunei	5	0	Guinea	5	1
Cameroon	4	1	Indonesia	9	8
Colombia	10	7	Jordan	7	2
Congo-Brazzaville	6	0	Kyrgyzstan	7	1
Ecuador	10	6	Liberia	8	n/a
Equatorial Guinea	3	0	Mauritania	6	0
Gabon	6	0	Mongolia	12	10
Indonesia	11	8	Namibia	12	6
Iran	4	4	Peru	11	9
Iraq	4	0	Papua New Guinea	10	10
Kazakhstan	5	0	Sierra Leone	9	5
Kuwait	7	0	South Africa	13	9
Libya	2	0	Uzbekistan	2	0
Mexico	12	8	Zambia	8	3
Nigeria	8	4			
Norway	14	10			
Oman	5	0			
Qatar	5	0			
Russia	5	6			
Saudi Arabia	3	0			
Sudan	2	0			
Syria	2	0			
Trinidad	11	10			
Turkmenistan	2	0			
UAE	4	0			
Uzbekistan	3	0			
Venezuela	8	6			
Vietnam	4	0			
Yemen	6	1			

Resource-rich categorizations compiled from International Monetary Fund, *Guide on Resource Revenue Transparency*, June 2005; democratic governance ratings from Freedom House and Polity IV.

Source: Siege (2007:38)

Besides autocracy, social development is another challenge facing mineral wealth countries. For example Siege (2007:38) writes that “Hydrocarbon rich countries with per capital income between US \$ 1,000 and \$2,000 experience an average infant mortality rate of 33(per 1,000 live births) vs 28 for the income cohort as a whole, or 20% higher. At per capital incomes between \$2,000 and \$4,000, the rates are 39 and 29 – a third as high 17.5 to 6. Mineral rich countries, in contrast match the global infant mortality medians for each income cohort”. Aside this, from this, mineral

wealth countries also lag on other social sector indices such as education, health care and life expectancy and the people's access to other social amenities. These differences explain the skewed development patterns witnessed in mineral wealth countries as the revenue of the mineral resources accrue to a small fraction of the population, making majority of the population to wallow in abject poverty thereby making the per capita income figures of these countries very misleading and not speaking to the results on the ground.

In order for development challenges to be addressed, the root cause of governance problems will have to be tackled. This is because that is what perpetuates the dysfunctions of other sectors. According to Siegle (2007) the few mineral wealth countries that have been able to tackle the democratic challenge have benefited whilst avoiding the negative impacts of the resource curse. Examples are Botswana, Norway, Chile, Mexico, and South Africa. The author argues that "Political competition, popular participation and oversight of public officials" (2007:40) are essential. He further adds that "the more the democratic processes of transparency and public accountability take hold during these transitions, the greater the likelihood that the general population will benefit from resource wealth" but if the democracy is superficial then there is the likelihood of the country the scourges of the resource curse. He further underscores the importance of creating democratic institutions, arguing that "democratic oversight mechanisms are what contribute most to the consistency and stability of their development performance" (2007:41)

In a similar argument, Collie and Hoeffler (2005) also posit that democracies that have relatively stronger systems of checks and balances are in most cases less susceptible to the negative effects of the natural resource curse, example being free press. Media that is independent can play an important role in promoting

transparency, holding leaders accountable, investigating corruption and allegations of corruption and holding leaders accountable to their promises and policies , drawing the governments attention to the social challenges of the citizens, increasing adherence to the rule of law (World Bank, 2002; Siegle, 2004)

In view of this, Siegle (2007) advocates that the focal point of intervention with autocratic and undemocratic governments is to strengthen institutional checks and balances and also “creating controls on corruption, expanding space for the private sector and strengthening civil service capacity are critical areas of reform that are generally less than pushing for political rights and civil liberties (2007:41). This according to him will go a long way to militate against the pernicious effects of the resource curse.

There are several strategies for spending natural resources rents in the literature. Some authors have argued that mineral rents will be better used if all or realistically part of the rents are distributed to the citizens through a system such as the transparent universal cash transfer (UCT) (Moss, 2011; Moss and Young, 2009; Bhubramanian, 2004). The rationale is that the government will then be able to have the incentive to tax back at least some part of the transfer. Underlying this argument is that it would develop a fiscal contract between the citizens and the government build mechanisms for accountability and create a responsible constituency for the management of the natural resources (Moss, 2011). This strategy has the tendency of creating governments’ conventional tax system reliance and may not necessarily generate the benefits that are sometimes derived from direct transfers.

The transfer through pricing strategy is another way. This is especially common in oil producing countries. This kind of transfer works by government providing cheap fuel

policies or providing energies for domestic consumers and citizens of the country through subsidized prices. Gelb and Majerowicz, 2011).

It must be noted however that this practice in its extreme form can have serious consequences for a country's growth and development. It could lead to waste in spending, growing consumption and also promote fuel smuggling to neighbouring countries where the prices of fuel are comparatively higher. This can ultimately affect the growth of a country and make sustainability difficult which in many cases will also make it politically difficult to reverse the policy.

In addition, the transfer through committees strategy explains that rents can be distributed through community based programs. A classic example of countries adopting this strategy is Indonesia which is building on long tradition using local action to share public spending through different programmes to the rural areas. These programmes have been successful generally in creating jobs in the rural areas and building infrastructural facilities in the rural areas as well as building the capacity of the local people (Gelb and Majerowicz, 2011)

Another strategy distributes natural resource rents to individuals and households through an institutionalized individual distribution program. According to Reinikka and Svenson (2007) such distribution, such as cash grants to schools have revealed the need for high transparency in such programs to reduce leakages. However, countries such as South Africa have been able to set up a good system of cash transfers such as child allowances, pension allowances, and disability payments among others. (Gelb and Majerowicz, 2011). It is important to note however that such a scheme cannot be implemented properly without a national identity cards.

Critics have however argued that the strategy of transferring money will encourage a culture of dependency and may also be wasted by the poor recipients who may not

be able to wisely decide how best to spend their monies in terms of choosing what is best for them (Gelb and Majerowicz, 2011).

Whilst this may be true, studies by Yanez- Pagan (2008) and Case (2001) have also argued that cash transfers can lead to spending increase in nutrition, health education and sanitation. This argument is also supported by United Kingdom Department for International Development (DFID), that there is evidence of positive correlation between cash transfers on one side and improved health and education on the other side. The Department further argues that in some instances cash transfers can increase labour participation by promoting migration and job searches while reducing labour disincentives (DFID, 2011).

In the view of the Revisionist theorists, strong and vibrant democracy with institutions that are well managed in the long run will benefit every aspect of civil life in a country. Therefore building these effective institutions and promoting a strong and vibrant democracy must be an objective for resource abundance countries battling with the resource curse.

The work of Rozner and Gallagher (2007) proposes three interconnected and mutually exclusive tools to tackle the resource curse. They argue that for these tools to be sustainable, they must be nurtured constantly since they are not one-off interventions. The tools are:

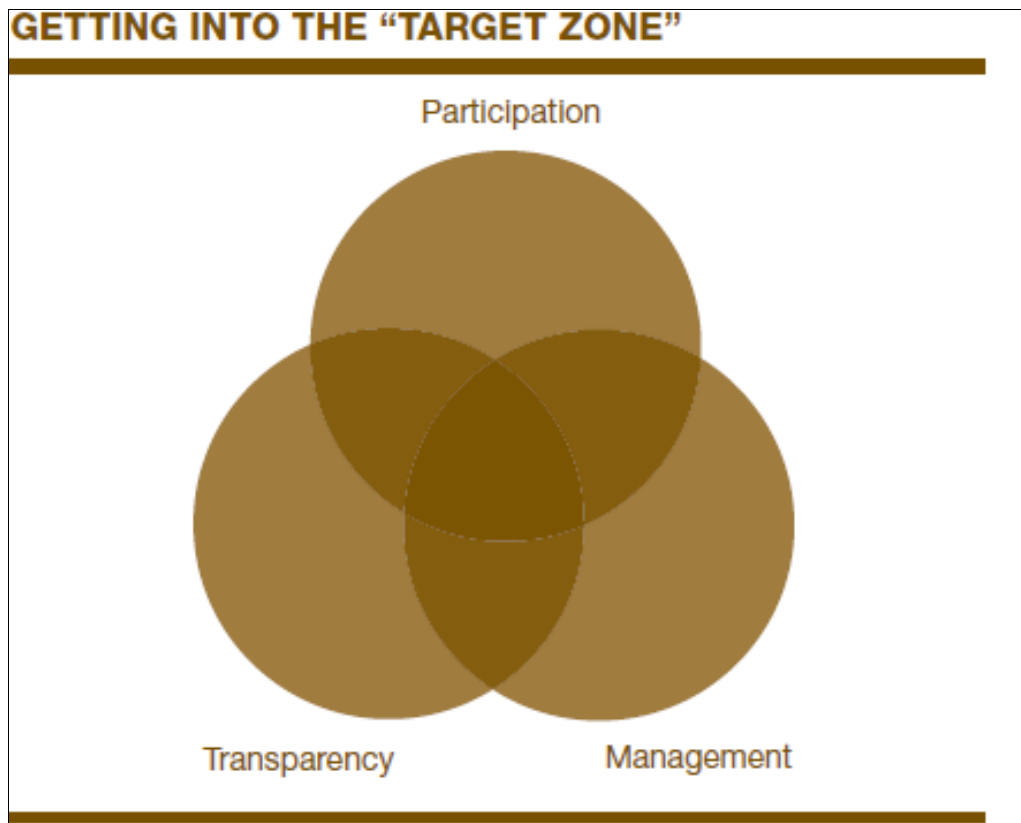
(a) Participation (b) Transparency and (c) Management

**(a) "Participation:** This is increasing public involvement in planning for controlling and distributing benefits arising from the resource bonanza.

**(b) Transparency:** improving the transparency of the fiscal sector and ensuring a full accounting of the natural resource revenues.

**(c) Management:** Helping government to manage its resource revenues so as to optimize social and economic benefits” (Rozner and Gallagher, 2007: 29)

**Figure 3: Getting into the target zone**



**Source: Adapted from (Rozner and Gallagher, 2007: 29)**

From the figure above it shows that the three tools, participation, transparency and Management must be applied simultaneously. This simultaneous application will create intersection target zones where there are management tools in place, public participation is promoted and transparency also exists.

Countries such as Botswana and Norway are characterise by the overlap hence have succeeded in overcoming the resource curse (Rozner and Gallagher, 2007)

Resource abundant countries often have their resources contributing highly to their GDP (Gross Domestic Product). This usually attracts powerful interests groups such as political elites from seeking rents. According Rozner and Gallagher (2007:29) when the appropriate tools are applied such as “give the public or at least a representative body of the public a more active and formal voice in public sector operations” known as participation. Three mechanisms are proposed to give stronger voice to the public to dialogue on the revenues that are generated from extraction of natural resources. They are “(1) Fiscal pacts; (2) Poverty education strategy paper process; and (3) Civil society budget initiatives” (2007:29)

According to Schneider et al. (2004:2) fiscal pacts are “negotiations (and the agreements derived from them) between organized societal and political interests about public expenditure and how to finance them” The negotiations are important it has the goal of bringing fiscal issues for discussion.

The Guatemala’s Pacto Fiscal which was signed in the year 2000 brought different stakeholders together, such as government, the private sector as well as groups of civil society with the aim of developing a proposal on tax and spending that would help the government to implement economic and social reforms which were promised during the country’s peace agreement. This did not only intend to bring tax administration efficiency but also to set objectives and allocate revenues to achieve them and create expenditure for the delivery of social services. Furthermore, the fiscal pacts proposed tax reforms in order to improve public expenditure quantitatively and qualitatively (Rozner and Gallagher, 2007). The authors further argue that in countries such as Angola, Chad and Azerbaijan, the challenge may not be so much of how to source for money to finance government spending, but how to efficiently and effectively make use of the “new found surplus” They posit that in

order for resource dependent countries to have a direction, they must adopt a fiscal pact. The fiscal pact provides direction and steers the agenda of a national policy. The policy could be poverty reduction, promote economic growth and or reconstruction. The success of the fiscal pacts is measured by the extent to which the set targets and goals are met. (Rozer and Gallagher, 2007).

Similarly, to the fiscal pact, the process of PRSP provides an opportunity and for platform for scrutinizing and debating economic policy decisions, making them open and transparent. This concept originated from the World Bank and the International Monetary Fund (IMF) during 1999 as conditionality and formed the operational basis for concessional lending and debt relief under the Highly Indebted Poor Countries (HIPC) initiative. In preparing the PRSP, the participatory process is used. This involves government, civil society organizations and other domestic stakeholders, international development partners such as the IMF and the World Bank as well as other international donors. They are normally updated annually with year by year reports on progress.

The PRSP identifies and describes social, macro- economic and structural policies as well as interventions through programs and projects that a country will pursue to reduce and alleviate poverty, promote general growth and well-being as well as external funding (Rozner and Gallagher, 2007). The PRSP creates a platform for civil society and other key stakeholders to get involved at the early stages for priorities to be set to guide government spending. The PRSP is not only needed by countries that need debt relief but can be adopted by resource rich countries to create a platform for domestic stakeholders and civil society groups to interact with the policy makers and contribute by influencing governments spending and investments of a country's mineral resource wealth (Rozner and Gallagher, 2007:31). It must be



noted however that some critics of the PRSP have argued that participatory process is seldom broad and that in most cases it is limited to a select group in and around the capital city of a country.

Civil society budget groups began to take roots in many countries since the 1990's. Rozner and Gallagher (2007) argue that the civil society budget is especially important in countries with rich mineral resources and where the country's public budgets are mainly funded by revenues from mineral resources. For example in Nigeria, the Social and Economic Rights Action Centre (SERAC) adopts this methods by applying budget analyses with the aim of drawing to the yet to be met needs of the citizens in that country especially those affected by the exploration of the oil in the Niger Delta.

Furthermore, there is also the Public Finance Monitoring centre (PFMC) supported by the Open Society Institute (OSI) in Azerbaijan which was set up in 2003 with the aim of scrutinizing the spending of government and proposing innovative ways of to use Azerbaijan's oil revenues to achieve the country's economic and social priorities in the medium and long term (Rozner and Gallagher, 2007). According to Rozner and Gallagher (2007), the main "aim of civil society budget work is to translate complex budget numbers into issues that people care about, and to lay out policy choices in a way that the public, the media and policy makers can understand and act on." (Rozner and Gallagher, 2007:31).

The civil society budget group can work at the national, regional and local levels and even at all the three levels. The work could be divided so that for example whilst some would be focusing on making the budget simple for popular consumption; others may focus on drawing policy maker's attention to understand the linkages

between the budget and policy issues. Others could also build the capacity of NGOs and local community members to serve as 'watch dogs' whilst others monitor the budget impact on the social lives of the poor and vulnerable people whilst others lobby and advocate for transparency to be deep and accountability to be great during the government budget formulation and implementation .

The Centre on budget and policy priorities has the International Budget Project (IBP) which is an intentional initiative that seeks to support the growth and capacity building of civil society budget groups in Africa and other least developed countries. The IBP works by providing technical, networking as well as financial support to civil society budget groups to build their capacity on how to analyse budgets and also advocate for budget systems that is transparent and which meets the social needs of the citizens and country.

The International Monetary Fund (IMF) Board of Directors adopted an updated Fiscal Transparency Code of Good Practices in 2001 that gives guidelines on how to report and publish information on fiscal matters to member states so as to promote transparency.

The coverage of this code include separating the government sector from the private sector , making information available for the general public, the processes of budgets as well as standards for fiscal data. There is also a manual that supplements the code to ensure fiscal transparency and also, governments and other stakeholders can use a questionnaire or survey which comes with the code to access the extent to which the standards in the code are being met (Rozner and Gallgher, 2007:33) Moreover, in 2005, the IMF further adopted the Guide on Resource Revenue Transparency to complement its fiscal transparency guidelines. This additional guide focuses mainly on the placement of the resource rents

allocation systems that allocates revenues directly to local and subnational governments, quasi-fiscal institutions of resource based national firms and debt payments and obligations related to extraction. Governments are mandated by the standards of the IMF to report all operations that are quasi fiscal to the government finance statistics as part of its overall reporting responsibilities.

The Extractive Industry Transparency Initiative (EITI) is a very important instrument that has the potential to bring greater transparency into revenues from the natural resource sector. The then Prime Minister of Britain in 2002, Tony Blair announced EITI during a World Summit in Johannesburg. The EITI is sponsored and supported by the UK Department for International Development (DfID). The EITI contains guidelines on how to report mining, oil and gas payments by domestic and international companies to governments. The EITI proposes a data aggregation and analyses methods by an independent third party (Rozner and Gallapher, 2007:34). Critics have however argued that though the EITI has made some progress, there are still much to be achieved. The protocols, guidelines and other documents that are basic to the initiative are yet to be rectified and have since 2004 yet to issue a quarterly report. The Schultz's citizen's guide (2005) is another tool for monitoring natural resources rents and how they are spent. The Schultz's citizen's guide proposes best practices from budget work to civil society leaders that can be adopted to monitor rents from the extractive industry. (2007:34)

Furthermore, the Publish what you pay (PWYP) initiative is another instrument that can be used to enhance transparency. It was launched in the UK by a group of organizations which includes Transparency International U.K, Save the Children UK, and Open Society Institute (OSI).

The main objectives of this initiative is to improve transparency in natural resource extraction countries and areas by coaxing oil and mineral companies especially to publish the data on the amounts of mineral rents they pay to governments of hosts countries. The rationale is to encourage these companies to publish and openly declare all information on payment transactions between them and the government which include signed contracts, arrangements on revenues and production, royalties' payments and other similar transfers to government.

The advantage of this this is that civil society organizations and other stakeholders can actually compare what the company publishes with what mineral wealth governments also publishes. OSI in June 2006 established the Revenue Watch Institute (RWI) which spearhead and coordinate efforts to enhance transparency and accountability in countries that are resource rich "by equipping citizens with the information, training, networks and funding of government revenue and expenditure" Rozner and Gallagher (2007: 34) In order to enhance transparency, the RWI publishes guidebooks reports and other tools.

Setting up resource funds is a key management tool for natural resource wealth countries. The objective is to stabilise earnings from foreign exchange over time. When there is a boom in the commodity price, revenue are put into the fund so that they are drawn and used when there is a burst or reduction in the commodity price.

It seeks to remove natural resource rents from the public finance system and place them into a safe "lock box" so as to prevent the political elites and other powerful actors from getting access to them. . It there means that rent seekers are prevented from getting access to rents from natural resources (Rozner and Gallagher, 2007: 34). The authors posit that there are mixed experiences with resource funds. This is

because Norway presents a classical example of how it should work with Chad also being an example of how an autocratic government can subvert an otherwise well designed resource fund.

Consequently, one other fund that has been used to decades to achieve several growth and sustainability is the Hartwick's rule in 1977. According to Lokina and Leiman (2014) the appropriate policy decision to take will depend on the extent of diversification of the economy and how stable its export revenues are. They propose that one way to move towards a diversified economy is by creating a Capital Development Fund (CDF). The idea is that it will direct revenues from minerals towards the development of human capital and the public sector, which are both very important for future sustainable growth and development.

The Hartwick's rule argues that for mineral countries to achieve general growth, development and sustainability, rents from minerals should be invested in productive assets and the country should only treat the income on those investments as the country's income.

The Capital Development Fund (CDF) has been one of the examples of that services several countries such as Jamaica and Nigeria. In order for the CDF to be effective, its regulations should be very tight. The rule further argues that instead of the fund being used to service recurrent expenditure, such as wage bills of civil servants, it should rather be channelled into infrastructural spending and social development. "properly managed such a fund should reduce future bottlenecks as to promote diversification and skills formation in the economy, and at the same time help sterilize the exchange rate effects of mineral based foreign exchange inflows" (Lokina and Leiman, 2014:32).

Critics have however argued that many of the CDFs that have been used across different places in the world have been conspicuously unsuccessful. This has mainly been due to the diversification of mineral revenues into the payment of wage bills instead of developing physical infrastructure and social development. (2014:32)

On resource funds as a whole, David et al. (2001) have argued that the impact of natural resource fund have been little especially on the relationship between export and expenditure of government.. They affirm that instead of the fund being part of the solution to fiscal challenges of resource revenue boom and burst, they are in fact part of the problem. The authors propose that instead of creating a separate fund as the resource fund, government s should rather address the challenges head on. This they can do “by orienting fiscal policy to the long run - maintaining a sustainable non- oil fiscal balance, restraining spending when oil prices rise, transparently presenting the relevant issues to parliament and the public and potentially hedging oil price risk using financial markets (Rozner and Gallagher, 2007:35)

Whether a natural resource wealth country will adopt a natural resource fund or the proposal by Davis et al, (2001) there will be the need to take on board “a multi-year approach to their revenue and expenditure systems”. And this will require some tools of macro fiscal planning to execute this task. These tools are

1. Medium -term macroeconomic frameworks (MTFF)
2. Medium - term fiscal frameworks (MTFF)
3. Medium - term -budget framework (MTBF)
4. Medium- term expenditure framework (MTEF)

All these depicts the various layers of budgeting functions and also involves “forecasting the overall macro –economy, setting a global budget perspective, developing multiyear revenue forecasts; and establishing budget ceilings for

budgetary organizations, programs and economic classifications of public expenditure (Rozner and Gallagher, 2007:35)

**Table 3: Macro fiscal framework**

Level	Outputs	Top-Down	Tools
1. Macroeconomic framework	<ul style="list-style-type: none"> <li>• GDP growth rates</li> <li>• Exports, imports, balance of trade</li> <li>• National and domestic savings</li> <li>• Public and private investment</li> <li>• Sectoral value added by major industry</li> <li>• Aggregate expenditures</li> </ul>		World Bank's RMSM-X financial programming model
2. Macrofiscal level	<ul style="list-style-type: none"> <li>• Revenue projections</li> <li>• Identification of financing and needs</li> <li>• Resource envelope</li> <li>• Government balances (current and overall)</li> </ul>		Revenue projection model, debt management model, public finance integration model
3. Expenditure package by economic classification	<ul style="list-style-type: none"> <li>• Current and capital spending targets</li> <li>• Wage envelope</li> <li>• Interest obligations</li> <li>• Purchases of goods and services</li> <li>• Transfers</li> </ul>		Public finance integration model
4. Expenditure package by sector and function	<ul style="list-style-type: none"> <li>• Nondiscretionary spending requirements</li> <li>• Discretionary functional spending</li> </ul>		Sectoral development strategies
5. Expenditure package by budgetary unit	<ul style="list-style-type: none"> <li>• Program and project funding requests</li> </ul>		Program budgeting, performance-based budgeting
<b>Bottom-Up</b>			

**Source: Rozner and Gallagher (2007:35)**

From the figure above, the MTMFs and the MTEFF by and large starts from the top to the down adopting a top to down approach with the MTEFs and MTBFs also starting from the down to the top, adopting the down to top approach.

## 2.4. NEO-COLONIAL DEPENDENCE MODEL

The neo-colonial dependence theory is another theory relevant for this study.

This theory propounded by neo-Marxists such as Kwame Nkrumah, Ghana's first post-independence president) and supported by other African leaders such as Julius Nyerere, Tanzania's first post-independence leader. Neo-colonialism postulates that, the gaining of independence by African countries were purely a token and did not change the relationship between colonial powers and their colonized nations, but rather, it created a system of dependence and exploitation between them. After independence, many of Africa's economies largely remained unchanged. Ghana was the first sub-Saharan country to gain independence in 1957 under the influential leadership of Kwame Nkrumah who became the first prime Minister of Ghana. Nkrumah (1965) cautioned, several years before his overthrow about the dangers of neo-colonialism. Nkrumah (1965:1) explains that "neo-colonialism is where formal political independence is achieved but economic control - and hence indirect political power continues to lie with overseas powers and companies. Similarly, Julius Nyerere also spoke of "flag independence-again a situation in which real economic control continued to rest with the former colonial powers" (Carmody 2011:3). According to Nkrumah (1965:3) "neo colonialism is the worst form of imperialism, in that, for those who practice it, it means power without responsibility and for those who suffer it, it means exploitation without redress". Colonial powers continue to control actively the governance and affairs of the newly independent countries. According to Nkrumah then, neo-colonialism is clearly manifested through monetary and economic resources and the colonized territories become the market targets for imports from the imperial countries. He writes that the essence of neo-colonialism is that, the state is in theory independent and has all the outward trappings of international sovereignty, however, in reality, it's economic system and political policies are directed by imperial powers outside. There are different methods and



forms this can take. In its extreme form for example, the imperial powers can garrison the neo-colonial state's territory and control its government. Often times however, neo-colonial control is exerted by imperial powers through economic and monetary means. The consequences of neo-colonialism are that foreign capital and investment is used to exploit rather than develop the developing countries thereby increasing the gap between the rich and the poor. Consequently, Nkrumah argues therefore that, the struggle against neo-colonialism is to prevent the imperial powers from using their financial muscles to impoverish the less developed countries.

Neo-colonialism stresses that natural resources of Africa has benefited and enriched imperialists to the detriment of the people of Africa. As a result of this, Nkrumah (1965:1) wrote that "Africa is a paradox which illustrates and highlights neo-colonialism. Her earth is rich, yet the products that come from above and below her soil continue to enrich not Africans predominantly, but groups and individuals who operate to African's impoverishment". Nkrumah opines that if Africa's resources were used for her own development, it would lead to the development transformation of the continent and its people thereby placing it among the modernized countries. However, as already noted, its resources only benefit its imperialists. Mining in particular has had huge direct foreign investments due to its foreign companies hope to get. The reason for this situation is seen from the absent of industries and manufacturing companies, creating a system where mining production is done in its primary form to feed industries and manufacturing companies in Europe and America which consequently impoverishes the countries where these mineral resources originate.

Whilst Nkrumah theory of neo-colonialism explains why Africa is still poor in spite of its mineral wealth; he failed to provide a solution to it, especially with specific

reference to how Africa's mineral resources can be harnessed for Africa's development. It is against this back drop that this study provides an alternative to neo-colonialism using the experience of Ghana.

## **2.5. TOWARDS A HUMAN CENTERED MINERAL RESOURCE GOVERNANCE IN GHANA**

Ghana's mineral resource governance is regulated by its mining policies. The main objective of all the mining policies adopted by the Government of Ghana over the years is to ensure that the mining sector contributes to the development of the country. Over the past century, Ghana's mineral policy has focused on the mining of gold, manganese, diamonds and bauxite for export. The country's large-scale mining companies mainly produce minerals such as gold bauxite, diamond and manganese. Whilst the small scale operations produce industrial minerals including limestone, kaolin and silica sand. (Minerals Commission, 2010).

It is estimated that gold alone contribute more than 90% of the overall in minerals in Ghana and has attracted most of the small -scale operators. Mining operations in Ghana are operated by both foreign and local mining companies. However, the participation of local equity is very minimal, particularly in the large – scale mining operations. Close to 76% of the sector players are foreign companies with the 24% also being domestic players (KPMG International, 2014). Table 4 below show some of the major mining companies in Ghana and the minerals they produce.

**Table 4: Table 4: Major mining operations in Ghana**

Mining company name	Government share	Type of operation	Location in Ghana	Country of origin*	Annual output (2013)**
Adamus Resources	10%	Gold	Teleku-Bokazo and Nkroful (Western Region)	Australia	105,215 ounces
AngloGold Ashanti	1.7%	Gold	Obuasi (Ashanti Region) and Iduapriem (Western Region)	South Africa	239,052 ounces
Chirano Gold Mines	10%	Gold	Chirano (Western Region)	Canada	274,683 ounces
Ghana Bauxite Company	20%	Bauxite	Awaso (Western Region)	China	826,994 tonnes
Ghana Manganese Company	10%	Manganese	Nsuta (Western Region)	Australia	1,997,911 tonnes
Gold Fields Ghana	10%	Gold	Tarkwa and Damang (Western Region)	South Africa	785,421 ounces
Golden Star Resources	10%	Gold	Prestea and Wassa (Western Region)	Canada	330,807 ounces
Newmont Ghana	0%	Gold	Kenyasi (Brong Ahafo) and New Abirem (Eastern Region)	USA	699,366 ounces
Perseus Mining (Ghana)	10%	Gold	Ayanfuri (Central Region)	Australia	198,608 ounces
Prestea Sankofa Gold	10%	Gold	Prestea (Western Region)	Ghana	22,853 ounces

Source: The Ghana Chamber of Mines, ICMM (2015)

According to the constitution of Ghana, minerals in Ghana belong to the state, irrespective of whether the mineral is found on a private or public land. The main piece of legislation that deals with the award of licenses and leases for the operations of minerals is the Minerals and Mining Act 703 of 2006. One major objective of the Act is to create a friendly environment for investors and position Ghana as a major mining investment destination in Africa. However, the Act was criticized for its non-transparent competitive process of awarding mining contracts. As a result, on the 20<sup>th</sup> of March 2012 a new approach came into being which requested for tender to mineral rights to be under transparent and competitive

manner. However, not much has been seen in terms of its results in promoting transparency and accountability in the tendering process (Adimazoya, 2013). This is because in Ghana's current mining governance system, it is illegal to disclose mining contracts and agreements and therefore mining contracts are not disclosed. In view of this, mining contracts entered into by the government of Ghana and private mining companies are still secret documents. Consequently, the Revenue Watch Institute Transparency index in the oil and gas mining sector, in its 2010 report placed Ghana 35 out of the 41 natural resource producing countries, citing mainly the lack of access to the contents of mining contracts as one of the setbacks in the country's mining sector. Accordingly, Adimazoya (2013) has argued that since the mining industry contracts involves resources for the public, and also because it is a public policy that concerns social, economic and environmental issues, the citizens should have access to the content of the contracts.

Apart from the award of licenses and leases for the operations of minerals, there is also the structure of the mineral governance system in Ghana. In order to understand how the mineral governance structure of Ghana is, it is important to identify both the formal and informal governing structures. The local level comprises of the formal government administration which also consist of district assemblies whose mandate is to oversee the administration of towns and zones. The informal governing structures consist of traditional authorities who are the chiefs, controlling stool lands, which constitute 80% of all land in Ghana. There are 95 paramount chiefs in Ghana with most of them in the rural areas of the country where mining activities take place. Standing (2014) writes that mining revenues are paid by the mining companies to the government of Ghana quarterly. Currently, with the introduction of the Minerals and Mining Amendment Act 794 in 2010, which

amended aspects of the Minerals and Mining Act 703 of 2006, mining companies pay a mineral royalty flat rate of 5% tax on profits to the government. The mining revenues are paid to the Internal Revenue Service (now Ghana Revenue Authority) which then releases the money into the Consolidated Fund. The distribution of the money is stipulated in the Minerals and Mining Act 703 of 2006 and shown in the table 5 below.

**Table 5: Disbursements of Mineral Royalties**

<b>Beneficiary</b>		<b>Share (%) of Total Amount</b>
Government in Consolidated Fund		80%
Minerals Development Fund		10%
Office of the Administrator of Stool Lands	10% of Total Amount	
The Administrator of Stool Lands takes 10% of the amount received to cover administrative expenses.  The remaining 90% is distributed as follows.		1%
District Assemblies	55%	4.95%
Stools	25%	2.25%
Traditional Councils	20%	1.80%
Total		100%

#### Minerals and Mining ACT 703 (2006)

From the table., 80% of the money is retained by government into the Consolidated Fund and used generally to support the national budget, 10% of the remaining 20% is dispense into the Mineral Development Fund (MDF) which is mainly used to assist public mining sector institutions and sometimes ad hoc flagship programmes in mining communities. The remaining 10% is quarterly transferred to the office of the

Administrator of stool lands, which then transfers the money directly to grass root beneficiaries. The formula used to distribute this money is clearly stipulated in Section 267 (6) Of the Minerals and Mining Act of 2006. This section stipulates that 10% is retained by the office to cater for administrative expenses, with 25% dispense to the traditional authority to 'maintain the stool' , 20% is also dispense to the traditional authority himself (in most cases the chiefs) with 55% going to the District Assemblies located in the area of the authority of the stool land. It must be noted however that in some of the district assemblies, the monies dispense to them can constitute about 40% of their entire budgets and there is no mining revenues available to district assemblies that are outside the jurisdiction of mining areas.

At the central state however, as already noted, the 80% that goes into the Consolidated Fund is a pool of government's resources to support the country's budget. According to Standing (2014:75), efforts by the state to utilize the mining revenues that it receives for pro poor development interventions "takes on heightened significance". Though part of the Mining Development Fund (MDF) has been used for development, Standing (2014) argues that "the MDF has certainly financed local level projects, including the financing of loans to small scale miners and geological assessments, the total sum of money used for projects explicitly designed for improving local economic development and to compensate for the cost of mining is very small. A large percentage of the Fund's expenditure goes to support capacity building of public institutions that study or work towards regulating. Obviously, this manner of spending revenues from a non-renewable resource such as minerals cannot be said to be a judicious and sustainable investment that will benefit the broad masses of Ghanaians.

Similarly, the International Council on Mining and Metals (ICCM) in 2015 reported that, the Environmental Protection Agency (EPA) which has the mandate to ensure that the environment is not damaged, and that mining is done in an environmentally sustainable way, does not benefit from this payment.

Furthermore, the Mineral Development Fund (MDF) does not have any legislative instrument to govern its management. As a result, it is unclear how the decision on allocation of funding is made. The MDF have previously received allocation of less than the 10% of mining revenues, payments have been inconsistent and have no separate budget as well as auditing procedures. Consequently, the World Bank (2011) in its internal evaluation report noted that, the government of Ghana's effort to utilize the country's mineral revenues to promote people centered development was still a work in progress. Authors such as Standing (2014); Pedro (2005); Pegg, (2003); Allen and Thomas, (2000) have argued that the cause of this have been mainly the lack of clear legislative policy on how this Fund should be spent, lack of transparency and accountability as well as participation in the mineral governance structure of Ghana.

Apart from the state's allocation and utilization of mineral resources, the traditional authorities, such as the chiefs also play a critical role in the governance of the mining sector of Ghana. This is because they play a part in the consultation and leasing of land for mining purposes and receive about 45% of mineral revenues dispensed to the grassroots. Though, the Minerals and Mining Act 703 of 2006 does not stipulate the role of the chiefs in mining contract negotiations (which is often done by central government), it does indicate the percentage of grassroots mineral revenues that should go to them. Despite the lack of legislation that clearly stipulates how monies that go to the chiefs should be used, it is assumed that it will be used for community

development. On the contrary however, studies by Standing (2014) revealed that too often, chiefs have tended not have interest in investing mineral revenues in the development of their people. Besides, there are no transparency and accountability mechanisms on how the revenues are received and utilised. The lack of community stakeholder engagement and no proper regulation accounts for this (Boachie-Danquah, 2011)

Besides the central and traditional authorities, the district assemblies also play a crucial role in the mineral resource governance in Ghana. Mineral revenues that go to the district assemblies are also supposed to be used for development purposes. However, with the current system of the district assemblies where only two third of assembly members are elected, with the District Chief Executive appointed by the President, some authors have argued that this system makes the institution vulnerable to political cronyism and patronage (Boachie- Danquah, 2011; Standing, 2014; Debrah, 2009). Previous financial audit in the district assemblies have raised serious financial irregularities including, misappropriation of revenues, improper auditing systems, among others (Extractive Industry Transparency Initiative, 2016). Similarly, the IMF (2012:101) had in its poverty reduction strategy confirmed that “weak financial management practices is rampant and there is general lack of accountability and transparency in the utilization of the District Assemblies Common Fund and other resources at the district level”.

As a result, the mineral governance sector of Ghana lacks transparency, accountability and effective regulation guidelines on how mineral revenues should be utilised. This has led to the misuse and embezzlement of mineral resource revenues. The Minerals and Mining Act 703 of 2006 which is the main legislative policy that



governs the mining sector of Ghana has a gap on these good governance strategies, which in effect thwarts the development of Ghana.

In order to respond to the governance challenges in Ghana's mining sector, there is the need for an alternative theory to respond to the failures of the previous theoretical constructions in the development literature of how mineral resources can enhance the quality of life and general well-being of the people, using the Ghanaian experience. The objective of the study means that it supports the argument that mineral resources can be governed for human development. However, some elements of the three schools of thoughts namely, the natural resource curse theory, the 'revisionist' theory and the neo- colonial dependence theory are very important in developing this model.

It is indeed necessary that for this framework to be sustainable in its implementation, Governments of mineral wealth countries sets a solid foundation by prioritising the diversification of their economies to ensure that other sectors such as agriculture, industries, manufacturing among others function effectively, to compliment the contributions of the mining sector.

The main tenet of this model is that for mineral resource governance to promote quality of life and general wellbeing for the people, it must be human centred. This is even more important due to the finite nature of mineral resources. In order to achieve this, education, health and the general standard of living of the people must be the guiding indicators. The driving elements of this theory are;

### **(a) Human Capital formation**

Laws governing mineral resources should be enacted to bind governments to prioritise the channelling of mineral revenues to education at all levels, basic, second cycle and tertiary, including technical and vocational training. The training of more health personnel as well as accessible and affordable health care should be prioritized. This should also include the development of both education and health infrastructures.

In order to create sustainable jobs, small scale mining and the related artisan industry must be recognised and integrated with the mining and other non-mining sectors such as manufacturing and industry.

### **(b) Participation and equity**

Participation of local community members in the mineral governance process is essential to achieve the goal of human development and avoid conflict. In the process of participation, care should be taken to include minority and vulnerable members of the society. The participation process should include the legislation, licensing, exploration, contracting, revenue generation and allocation. Governments should be mindful of subordination in the process of participation to promote equity and eliminate subordinate inclusion.

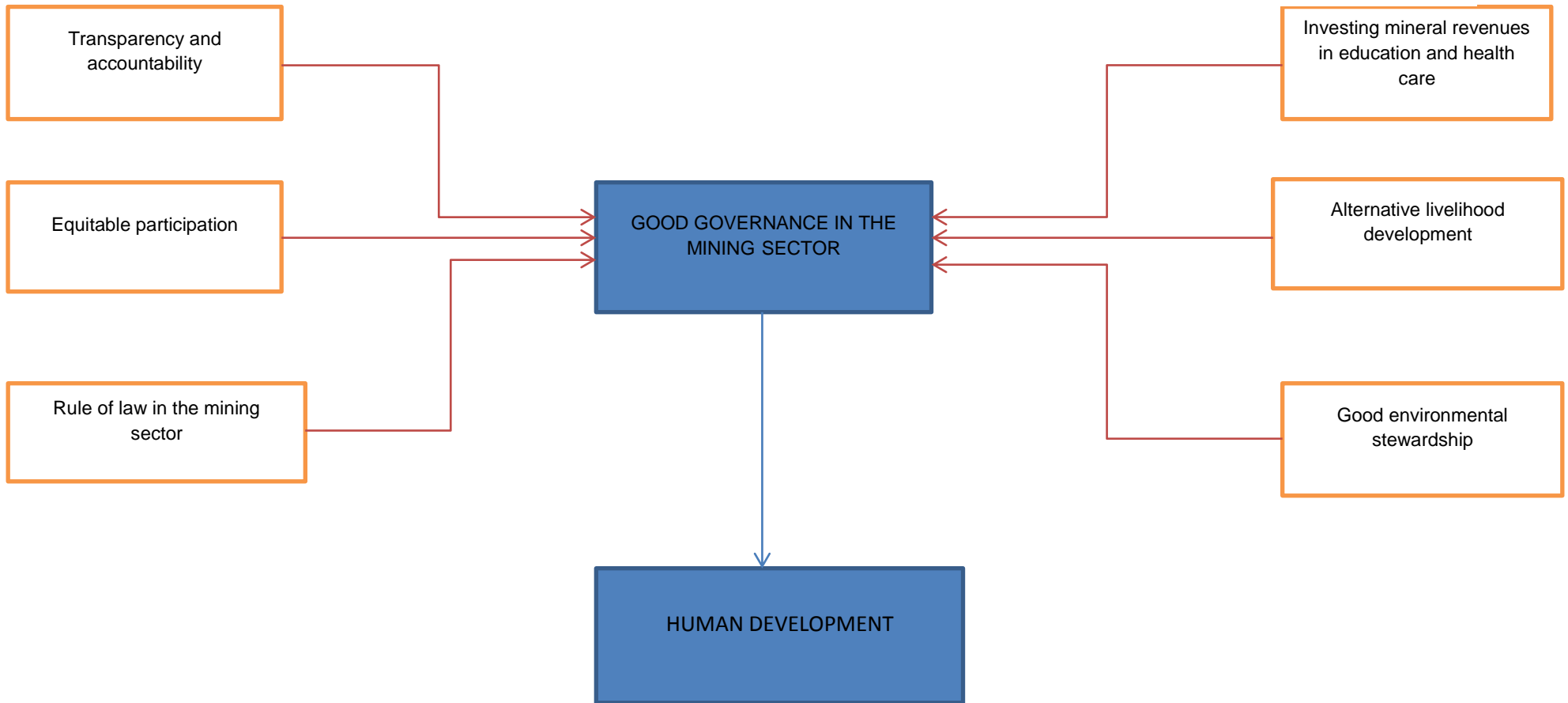
### **(c) Transparency and Accountability**

Mining laws and the system of mineral governance should promote transparency such as promoting people's access to mining information. Accountability of officials of both governments and non-governments should also be demanded by law to prevent corruption and profligate spending.

**(d) Good environmental stewardship**

Mining laws should be promulgated to promote environmental sustainability in the mining communities. This will ensure that part of the land and water bodies are conducive for other non- mining activities, such as agriculture.

Figure 4: Figure 5: Human-Centred Mineral Resource Governance Model



## 2.6. CONCLUSION

There is a broad range of literature on mineral resources and its relationship with the development of nations. All these views can be categorized into three dominant themes, namely, the rent seeking government theory, Revisionist theory and the neo-colonial dependence theory. These theories generally attempt to explain why mineral wealth countries continue to face challenges with its management for development.

The rent seeking government theory's argument is that the poor performance of mineral wealth economies can be attributed to a confluence of factors, including the Dutch Disease (which is a situation where the natural resource sector growth crowd out other important sectors of the economy such as agriculture and manufacturing which negatively affects economic growth), instability and decline in mineral trade, Political elites' interest in mineral rents, lack of local capacity, non-transparent nature of government revenues and foreign exchange, profligate social, infrastructural and political spending which even continues when there is decline in mineral revenues and trade. Diametrically opposed to the resource curse theory is the revisionist theory, which argues that the reported negative performances of mineral wealth economies are only case specific and not as general as being projected to look like by the lower growth theory and that the factors that might cause a mineral wealth country to perform poorly economically and socially could be several and mixed. They contend for example that mineral wealth country such as Botswana has a fast growing economy whereas as a country like Zambia is encountering some negative economic growth. The neo-colonial theory on the other hand also argues that

Colonial powers continue to control actively the governance and affairs of the newly independent countries to the extent that they control their natural resources.

This chapter has developed an alternative theoretical framework which was used as a benchmark to collect data to test the hypothesis that human development can be enhanced by good governance in the mining sector.

## **CHAPTER THREE**

### **METHODOLOGICAL CONSIDERATIONS**

#### **3.0. INTRODUCTION**

The study of mineral governance as a strategy to address human development challenges requires the utilization of multiple data collection methods and analysis. This is primarily due to the fact that human development issues cut across socio-economic, cultural disciplinary and methodological boundaries.

The main thrust of the study is quantitative, though it uses in-depth interview responses from key informants to validate the quantitative data.

The nexus between mineral governance and human development requires rigorous analyses and interrogation of stylized theories, facts and hard economic data from official and non-official document sources in order to fully comprehend and articulate the global situation of the subject. It is in view of this that the study hinged on quantitative methodologies to better comprehend the discourse. Qualitative data has also been used only to augment the quantitative approach where required, especially in the form of in-depth interviews and observations which are vital research methods of data collection and analysis. The archival research especially on the classified and non-classified documents of both development agencies of state and non-state are key in probing to know the real situation as it is on the ground and can potentially provide policy issues adequate for human development interventions in local communities. Interviews with heads of households and other key informants on human development issues in mining communities provided important and crucial data on mineral governance issues, policies and processes as well as how mining revenues can be managed to promote people centred development.

### **3.1. RESEARCH DESIGN**

Research Design is defined as “plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis” (Creswell, 2009). The plan here refers to complete scheme, which is normally a research proposal or program to conduct a particular research. The purpose of research could be several, with the most common and useful ones being exploration, description and explanation.

Explanatory research is one in which the research is conducted to explore a topic or provide a thorough knowledge and good understanding of a topic. This type of study is typical when a researcher is interested in studying a relatively new subject area. According to Babbie and Mouton (2005:81), in a descriptive research, the researcher observes and then describes what was observed. This allowed the researcher to gain deeper insight into the phenomenon or subject being studied. The purpose of a research is exploratory if the researcher wishes to know for example why a phenomenon or event ended in a particular way, as against simply describing how a phenomenon or event happened. Scientific studies are normally more careful and deliberate in approaches and therefore are more likely to be precise and accurate in its findings than the description approach.

In designing for this study, the study drew information from all available data on how minerals can be managed to improve the standard of living, health and education of the people.

There are three dominant research designs that can be differentiated. These are qualitative, quantitative and mixed methods of research (Creswell, 2009; De Vos et. al, 2011). According to Tuckman (1997:27) no research is entirely quantitative or



qualitative. This simply means that, a research that is said to be quantitative might have little bit of qualitative method and vice versa.

### **3.2. STRATEGY OF INQUIRY**

According to Creswell (2003), strategy of inquiry or methodology is the choice of research design assumptions about knowledge claims that provides specific direction for procedure in research design.

The study used the concurrent procedures as its strategy of inquiry, in which the researcher converged both quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. Here the researcher collects both numerical and descriptive forms of data at the same time during the study and integrate the information in the interpretation of the overall results (Creswell, 2009). Specifically, the case study method was used. The case study approach is defined as “studies in which the researcher explores in depth a program, an event, an activity, a process or one or more individuals” whilst a survey uses questionnaires and structured interviews to collect data with the intention of generalizing from a sample to a population (Creswell, 2003:15). The rationale for adopting this approach is that recognising that all the methods have limitations, inherent biases in any single method could be neutralised or cancel biases of other methods (Creswell, 2003). Consequently, the study gained a comprehensive and in-depth understanding of how mineral resources can promote people centered development. The case study also helps in the economic use of resources as well as time which will be difficult if the total population in the country are used in the study (Neuman, 2011).

Though the research primarily used the survey approach, where questionnaires were used to collect data with the intention of generalizing from the sample to the

population (Babbie, 2005), responses of interviews of key informants were used to validate the quantitative data.

As argued by Creswell and Clark (2007:33) using one single approach (either entirely qualitative or quantitative) to investigate a problem is difficult, therefore the need for a triangulation of data collection methods so that the negative effects of both qualitative and quantitative could be neutralized and strengthened. One other rationale for adopting the triangulation of data collection methods was to minimize biases thereby improving the quality of the study. Here, the weakness of each of the single methods is counterbalanced or compensated for, and therefore enhanced the credibility of the findings of the study (Fidel, 2008:265).

According to Creswell (2009), quantitative research is defined as “testing objective theories by examining the relationship among variables that are measured to produce numbered data that can be analysed using statistical procedures’. Hennink, Huter and Bailey (2011) also write that the purpose of quantitative research method “is to quantify a research problem, to measure and count issues and then generalise these findings to a broader population”.

Hennink, Huter and Bailey (2011:33) further argue that the purpose of quantitative research method “is to quantify a research problem, to measure and count issues and then generalise these findings to a broader population”. According to Creswell (2003) quantitative method is defined as an approach in which “the investigator primarily uses post –positivist claims for developing knowledge ( ie., cause and effect thinking, reduction to specific variables and hypothesis and questions, use of measurement and observation, and the test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on pre-determined

instruments that yield statistical data". This type of research seeks to explain and make predictions with the intentions of generalizing to other persons and places so that it can contribute to theory by validating or confirming relationships between variables (Leedy and Ormrod, 2003: 100).

As acknowledged by Creswell (2003), quantitative research originates from positivist paradigm which was coined by August Comte (Often referred to as the father of Sociology) and is therefore the proponent of this research method. Quantitative research involves analysing data by putting it into a numerical form with the aim of manipulating it based on their arithmetic properties (Monette et al., 1990). The positivist paradigm argues that the social world exists externally and that its characteristics and properties should be studied and measured using objective methods. In quantitative studies, problems are identified by testing a theory, measuring in numbers and conducting analyses using statistical techniques. Statistics are used in the analysis of quantitative data which involves assembling, classifying, tabulating as well as summarizing the numerical data to make meaning or to obtain information. The method emphasises on measuring and analysing the relationship between different variables.

The aim of quantitative data is to show whether the predictive generalization of theory is true and seek to explain and make predictions that will generalise the findings to other persons and places (Kumar, 2005). This study used the method complementarily so that its findings could be generalised to other mining areas with similar socio-economic conditions.

### **3.3. UNITS OF ANALYSIS**

Units of analysis are the objects that are being studied in a particular research. The study uses two units of analysis for its research inquiry observation and analysis. They are the heads of households and the nation state. A household is “defined as a person or group of persons who live together in the same house or compound, share the same house keeping arrangements and recognise one person as the head of the household” (Ghana Statistical Service, 2013). The justification for this is that there is a centralized nature of data in Ghana and the decentralized household data. In most cases, sub-national data in many developing countries are unavailable and in situations where they are available, they are sometimes inconsistent and incomplete, hence the use of national data. As a result of this, using national data was appropriate for this study since the social, economic, cultural and political conditions found in Ghana are similar to other mineral wealth developing countries, especially mineral wealth countries in sub-Saharan Africa. As a result, findings emanating from the study can inform policy formation in those countries. Officials from the Minerals Commission of Ghana, Ghana Chamber of Mines and WACAM who were interviewed were informed to respond to the questions in their official capacities not at their personal levels. The heads of households were selected for the study due to their position in the household as those who make livelihood decisions for the whole household.

### **3.4. POPULATION AND SAMPLING**

Haward and Sharp (1983) indicate that the first step to conducting a research is by defining the population that is to be studied. These include demographic, geographical and other boundaries and decide whether it should be partially or fully covered. The population of a study is defined as “the entire group of people to whom

researchers wish to generalise the findings of a study including persons who did not participate in the study” (Crow, 1996:76). It is therefore defined by Kalof, Dan and Dietz (2008) as “a collection of people, objects, countries, etc., that share a common characteristic of interest”.

People in the Western Region of Ghana constituted the population for this study. The Western Region is one out of the ten administrative regions in Ghana with a population of 2, 376, 02, covering an area of 23,921 square kilometres representing about 10 percent of the total land surface of Ghana. The region has 17 Municipalities and Districts (Ghana Statistical Service, 2013).

**Figure 5: Map of the Western region showing mineral deposits**



**Source: Ghana Statistical Service (GSS) report, 2013.**

The Western Region of Ghana was the case study area. Data was collected in 2 Municipalities and 1 Metropolitan area namely, Takwa Nsueam, Prestea Huni Valley and Sekondi –Takoradi respectively. Takwa Nsueam and Prestea Huni Valley are Municipalities with populations of 90, 477 and 159,304 respectively, Sekondi –Takoradi Metropolitan area has a population of 559,548. 90 (Ghana Statistical Service, 2013). The area was selected on the basis of its mineral resource wealth and socio economic circumstances.

Blanche et al. (2006:49) define sampling as “the selection of the research participants from the entire population, which involves decision about which people, settings, events, behaviours and or social processes to observe”. Monette et al., (1990:132) posit that “a sample is drawn from a population and it is the representative when it accurately reflects the distribution of relevant variables in the target population”. Resultantly, a sample according to Newman (2000) can be thought of or viewed as a small reproduction part of the population targeted for studies and has the main aim being to generalize the results of the study to the population defined. For this study therefore, the sample size was 100 households.

There are two main types of sampling, namely probability and non-probability sampling methods. In probability sampling, all the members of a population have a chance of being included in the sample. (Bless and Higson, 1995). On the other hand, in a non-probability sampling, elements of the population do not have equal have equal chance of being selected in a sample.

This study specifically employed the stratified, random and purposive sampling methods. Mcmillan (1996: 87) argues that “... stratified sampling ensures that identified sub-groups in the population are represented in the sample in the same proportion that they exist in the population”. The population was initially divided into sub groups called strata and then elements were randomly selected from it. Often, it is used when the population of a study is heterogeneous rather than homogeneous. Consequently, the study employed stratified and random sampling methods to ensure that factors such as gender, age, wealth distribution, occupation, different types of residential areas and educational qualifications are properly captured in the sample as they are in the population in order to avoid sampling bias, thus skewed findings. Purposive sampling also helped the study to specifically target and

interview key informants whose knowledge and experiences are relevant to the objectives of the study.

The stratified, random sampling was used to select 100 households for questionnaires. The reason for the sample size is that households in Ghana have an average of 4.5 persons (Ghana Statistical Service, 2013) hence the sample size was a fair representation of the population. The population was initially divided into sub groups called strata and then elements randomly selected from it. The households were selected from Takwa Nsueam, Prestea Huni Valley and Secondi - Takoradi. The study selected 30 households from each of the two Municipalities, Takwa Nsueam and Prestea Huni Valley while 40 households were selected from Secondi – Takoradi Metropolitan area. The rationale for the selection is that, the two Municipalities are mining areas with smaller populations whilst Secondi - Takoradi is the regional capital with a bigger population. In addition to that, the study also interviewed officials of the Minerals Commission of Ghana, the Ghana Chamber of Mines, and an NGO that partners in development interventions in mining communities and one mineral resource expert (Academician). The justification for this was to get an informed input about how mineral resources can be used to alleviate poverty. The individuals from these institutions who were interviewed were informed to respond in their official capacities not at personal level.

### **3.5. DATA COLLECTION PROCEDURES AND METHODS**

Data collection refers to a procedures involved in preparing and collecting data in order to get vital information for decision making. There are several ways of collecting empirical research data. The study adopted questionnaires, in-depth interviews and archive documents to gather data.



The reliability of research findings does not depend only on the choice of a research method, but also in the procedure in which the data is collected. The procedure for data collection has the potential to improve the validity and reliability of the findings of a study especially if the procedure is effectively managed in a way that is consistent and appropriate with the settings of the research.

### **3.5.1. Preliminary procedures**

As part of the preliminary procedures, the study applied to the Govan Mbeki Research and Postgraduate office for ethical clearance in order to carry out research on human subjects. All students of the University of Fort Hare were mandated to apply for the clearance which was part of the academic process to be followed.

Furthermore, the researcher applied for clearance to conduct the study from the three Municipalities selected in the Western region for the study. Application for clearance was also sought from the Ghana Chamber of Mines, Minerals Commission of Ghana and WACAM. This was done to facilitate the interview of the officials from these organizations and to access documents on mining and human development.

### **3.5.2. Procedures during data collection**

The researcher personally administered the questionnaires and conducted the interviews. Consequently, high ethical standards were upheld during data collection. Before interviews were conducted, appointments were sought with the key informants and the most convenient times were agreed. The purpose of the study was clearly made known to the respondents and an assurance of their anonymity was also stressed. Before the in-depth interviews, the key informants were made aware of the recording of the interview. After the interviews, respondents and key informants were thanked for their time and contribution.

### **3.5.3. Data Collection Instruments**

The data collection process forms a vital step in research; hence there was the need to employ sound procedures for data collection, and combining different data gathering instruments helped to strengthen their different uses (Bogdan and Biklen, 1992). Consequently, the study explored multiple sources of data, that is, primary data (sourced from the comprehensive survey using both quantitative and quantitative research methods) and secondary data (data from secondary sources). In the case of the primary data sources, semi-structured questionnaires and in-depth interviews were used to collect data from the heads of households in the Western Region and relevant organizations and government institutions (Minerals Commission of Ghana, Ghana Chamber of Mines, WACAM and an Academic Expert) respectively. Both closed-ended and open ended questionnaires were used to collect data from heads of households. Interview guides were used to conduct the in-depth interviews. The reasons behind these instruments are that whereas the closed-ended questionnaires facilitated wider coverage of households; the open-ended questionnaires and interview guides helped to enrich and augment the data obtained, by helping to probe further on questions that needs further clarification and capture perceptions as well as attitudes of informants.

#### **3.5.3.1. Questionnaires**

The study used questionnaire to collect data from heads of households. Closed and open questionnaires were used in collecting data from the heads of the households in the three selected districts. Resultantly, 120 questionnaires were administered to the heads of the households. The 120 questionnaires ensured that the study got 100 well responded, returned questionnaires for good analyses and credible findings.

Gray (2006), writes that questionnaires as data collection instruments should be carefully formulated and structured and sequential during its construction so that the important data can be obtained in a manner that is most effective. Questionnaires have sets of questions that are fixed in wording and sequential in presentation and also indicating how precisely the questions should be responded. They normally must guarantee confidentiality, anonymity and privacy of the respondents so as to eliminate victimization and biases (Bless and Smith, 1985:107).

The choice of questionnaires over other data collecting instruments in collecting data from heads of households was necessitated by a number of merits. First, questionnaires were used to complement the in-depth interview method of data collection with the view to get a wider and unbiased response of mineral governance for sustainable human development. Secondly, questionnaires are cost effective in terms of data collection from a large scale and geographic area where standardization of questions is critical for valid and reliable responses. This standardization of questions among large scale data yields specific and comparative data which is viable particularly in studying where human development strategies are to be mapped and tested.

The data that was collected through questionnaires was absorbed according to the study's objectives so as to make meaning to the overall objective of the research.

#### **3.5.3.2. In-depth Interviews**

The study used in-depth semi-structured interviews to gather data on mineral governance for people centered development particularly from key officials from state and non- state institutions. Newman (2000: 13) defines in-depth interviewing as "a qualitative research technique that involves conducting intensive individual

interviews with a small number of respondents to explore their perspectives on a particular idea, program or citation. The study utilized open-ended questions to conduct face to face in-depth interviews so as to get a wide range of responses from the selected respondents. This allowed the respondents to share their views, attitudes, beliefs, experiences and perceptions of the current mineral governance structure and how it can be organized to promote human-centered

Human development is a multi-faceted and philosophical concept and as such requires plural voices and contributions to stimulate sustainable development interventions. Human development perceptions, attitudes, beliefs and values may only be apparent through the use of in-depth interviews.

In-depth interviews on the mineral governance for development in Ghana provided complete and holistic responses since such type of interviews allowed the interviewer the opportunity to re-play the interview responses and check the viability and reliability of the information. The study utilized in-depth interviews due to their flexibility and friendly nature.

Interviews conducted were voice recorded and then transcribed using Express Sound software, which greatly enhanced the transcribed interviews.

The in-depth interviews were conducted with a schedule of questions to guide the discussions. Interview guides in the form of questions designed on the objectives of the study, allowed for a logical coherent discussion of issues and ensures that all crucial issues which ought to be probed were sufficiently covered. The schedule of questions is tentative as follow up questions were put across and more evidence solicited.

### **3.5.3.3. Document Analyses**

Mineral governance and human development do not happen in a policy vacuum, but rather in a set of policy and regulatory structures which administers the socio-economic conditions of development. Important policy statements are mostly found in government policy documents, acts of parliament, and non-state sectorial reports. The research comprehensively relied on some of these documents (such as the Minerals and Mining Act of Ghana, Acts 703 of 2006, UNDP reports, World Bank and IMF Reports, Ghana Statistical Service Reports as well as Ghana Chamber of Mines reports and other published and unpublished materials) in analyzing critical policy issues as well as consistently follows the contribution and performance of the mining sector to the economy of Ghana.

Document review is a logical process of data collection where secondary sources of documents are employed in a study. Reviewing documents provides a record of events over a period of time which is necessary for human development where timelines are important to be acknowledged. This part of document review allowed the study to track key issues from various documents which has prominently improved the validity and credibility of the findings.

The study employed the state of Ghana as the unit of both data collection and analysis. This has repercussions towards the scale of this research and whether the study did fully saturate the unit. This issue was addressed by analyzing documents where a critical content review resulted in an overview of human development situation in Ghana which otherwise is cost effective way. Review of documents produced data which was explicit and comprehensive as well as free from the researcher bias. The study employed document review due to the robustness of data

and its high level of precision as compared to human reminiscences of events by respondents.

Nevertheless, it is worth noting that the researcher cautiously scrutinized the documents used for reliability of data as some government documents could be bias giving skewed data.

### **3.6. DATA ANALYSES**

De Vos et. al. (2011) define data analyses as “The process of bringing order, structure and meaning to the mass of collected data”. Data was analysed using thematic analysis. According to Creswell (2009), this involves identifying, analysing and reporting patterns and themes within a given data set. A code was assigned to each theme.

Human development naturally is a composite of epistemological and quantifiable objective data which should be subjected to a logical interpretation and analysis of facts. The study therefore employed content analysis of document. Key to this research is a critical analysis of data from primary and secondary sources from national and international agencies and governments departments.

The study adopted the mixed methodology for data analysis. Constant comparative analysis was used to identify patterns, code data and classify findings of the in-depth interviews. The basis for this was to observe trends and discontinuities particularly on human development. Tables and figures were used where suitable to organize the data. This data was supported by both documented primary and secondary sources of literature. Data from questionnaires was statistically analyzed using statistical methods that are in line with particular research questions and assumptions. Some of the statistical procedures adopted include simple descriptive

statistics, and analysis of variance. This approach gave the needed triangulation necessary for data analysis and interpretation.

### **3.6.1. Quantitative data Analysis**

The research generated quantitative data largely from questionnaires and document content analysis. Quantitative data was generally analyzed using Excel Spreadsheet. Excel spreadsheet provided valuable tools in the understanding of governance and human development indicators. Descriptive statistics cross tabulations and extrapolations were shown on the data to produce valuable analysis. Questionnaires were all coded before their administration and all the responses were transferred in the spreadsheet. Data was then captured and comprehensively cleaned before the analysis was done which resulted in clear and succinct analysis. The interpretation of the analyzed results was concurrently conducted.

### **3.6.2. Qualitative Analysis**

With the qualitative data however, interview data, document reviews and observations were analyzed using Atlas.ti, qualitative analytical software. This type of software made it possible for the coding of data in the form of words to be coded for closer examination and analysis. The documents especially from government on human development, contribution of the mining sector, required software which could connect them into single family codes so as to trace themes and issues appropriately. The software was also suitable to analyze interview responses from the key informants who were selected for the study.

## **3.7. CONCLUSION**

Ghana is faces widespread human development challenges. Mineral resources continue to play a crucial role in the revenue generation and foreign exchange

earnings of the country. It is therefore imperative for the country's policy makers to utilize these earnings judiciously to promote sustainable development. In a study that seeks to investigate and come out with a policy for this purpose, there is the need for rigorous methodology to gather data which reflect the true state of development situation in the country, using Western region as a case to put the critical issues of mineral resources and development to the fore. Investing in education, health and the general standard of living of the people should be at the core of government policy in the utilization of mineral earnings. Stimulating and securing sustainable livelihoods of the millions of Ghanaians in the aforementioned areas should be enough impetus for the State to redefine the terms of its development interventions. In view of this, the study therefore utilized the mixed methods to probe the socio-economic conditions of Ghanaians. Relying on both quantitative and qualitative methods of data collection, the key issues of human development are captured.



## **CHAPTER FOUR**

### **AN ANALYSIS OF MINERAL GOVERNANCE AND HUMAN DEVELOPMENT**

#### **4.0. INTRODUCTION**

Structuring the mineral governance system in Ghana to promote socio-economic development continues to be a major concern for development managers and theorists alike. Weak and ineffective mineral governance system often results in irresponsible mining and use of mineral rents which can be detrimental to the livelihoods of the people living in the mining regions and communities. This chapter describes the extent, nature and effects of mineral rents on the socio-economic development of Ghana with specific focus on the Western region. Field data was collected from 2 Municipalities and 1 Metropolitan area namely, Takwa Nsueam, Prestea Huni Valley and Secondi –Takoradi respectively. In order to understand the issue comprehensively and do critical analyses, the study looks at the mineral governance structure of Ghana. It starts by analysing the household demographic information with the view to understanding the major characteristics of the respondents. This is preceded by analyses of the well-being of household members and their housing characteristics which gives the idea of their standard of living and their livelihood coping strategies. Further analyses of education and access to medical care in the Western region are also presented in this chapter. This is followed by analyses of the job opportunities that mining provides. Equally essential is transparency and accountability in the mining sector. In view of this, analyses of transparency and accountability on the mineral governance sector are also presented. In order to promote inclusive development in the mining sector, the study also analyses the extent to which the mining sector promotes equitable participation

of especially vulnerable persons in relation to employment opportunities in the mining sector.

#### **4.1. HOUSEHOLD DEMOGRAPHIC INFORMATION**

##### **4.1.1. The structure of household**

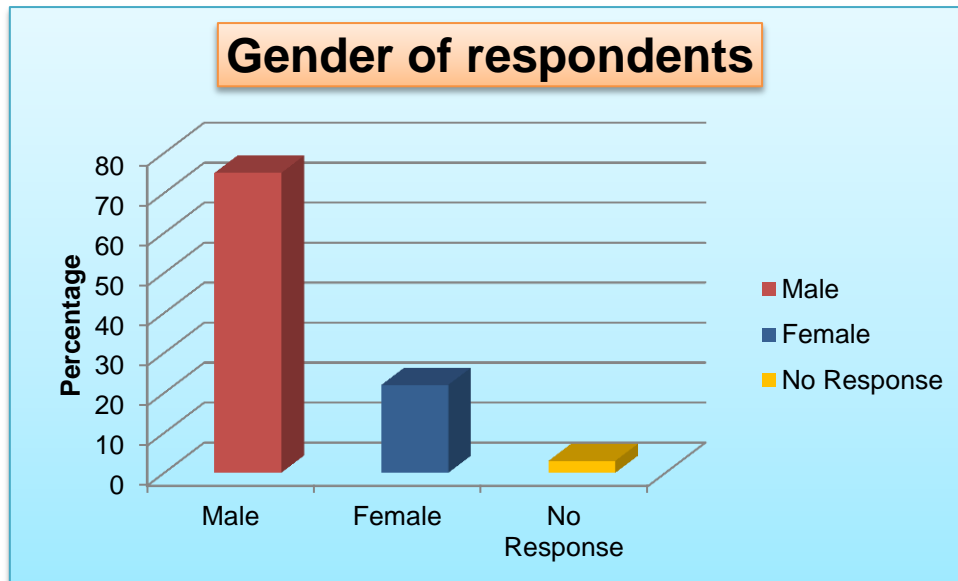
Households are very important units in development planning and management. Social interventions often target the households especially in the delivery of goods and services. As a result, in a study of mineral governance and its linkages to human development in Ghana, knowledge of the structure, composition and headship of households provides statistical and descriptive details for socio-economic analyses and policy considerations. Families mainly constitute households in both rural and urban Ghana. The role of the family in Africa is very crucial. Nukunya (2003: 50) observes that in Africa, the functions of the family may be listed as procreation, socialization and economic cooperation. There are two types of family ties that inform the formation of households in Africa, the nuclear and the extended system of family. The nuclear family system comprises of the father, mother and their unmarried children (usually biological and /or adopted). On the other hand, the extended family comprises of the nuclear family, parents, siblings and other relatives, either built around the patrilineal or matrilineal family ( in most cases not both) (Nukunya, 2003). Patrilineal families are those built around a common ancestor (male) whereas matrilineal system of family organization is built around a common ancestress (female). In Ghana, both forms of family systems exist and may constitute a household. This makes the concept of a family closely linked with that of a household in terms of their formation. However, whereas families are groups of people related by ties of consanguinity , marriage or adoption, in households

formation and definition, members are not necessarily related by ties of consanguinity but rather, they live together to constitute a single consumption unit (Nukunya, 2003).

In order to understand the characteristics of a country or region's population, it is fundamental to understand the dynamics of its household. This is because the characteristics of a country or region's household, is a reflection of the entire population of the country. This therefore makes the households very important units of analysis for local, regional and national contexts because local economic activity is vertically integrated into the national system.

A traditional Ghanaian household comprises of the head of the household, children, in laws, siblings, other relatives and non-relatives (GSS, 2013). This places majority of such households into the extended family category. The head of household has varying definitions across countries, regions and continents. However, for the purposes of this study, the head of a household is defined as “a member of the household who is recognised as such by the other members of the household. The head of the household is generally the person who has the economic and social responsibility for the household. All relationships are defined with reference to the head” (GSS, 2013: 69). The household head therefore refers to the breadwinner (male or female), the one who makes decision for the household whilst other members recognise him as such. This study targeted the heads of the household. Figure 7 and 8 below show the responses of interviewed heads of households in the three districts selected for the study. Figure 7 shows the distribution of the gender of the respondents and indicates that 97 out of the 100 respondents indicated their gender. The figure shows that the male respondents constitute 75% of the heads of household whilst the female respondents constitute 22%.

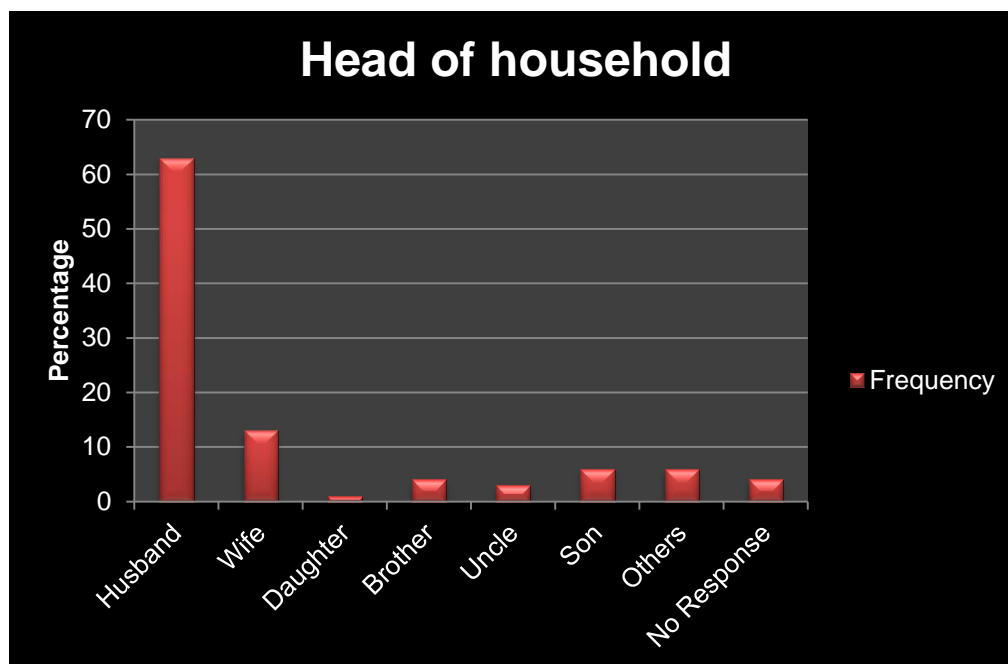
**Figure 6: Gender of respondents**



Source: Fieldwork (2016)

Out of the 100 respondents, 96 of them responded to the question of, who the head of the household is. The study revealed that 63% of the households are headed by husbands, 13% headed by wives, 6% headed by sons, 1% headed by a daughter, 4% by a brother, 3% by an uncle and 6% by other members who are not in any of the categories mentioned. This means that majority of the heads of households in this study are males.

Figure 7: Head of household



Source: Fieldwork (2016)

In most of the cases, the husband is regarded as the head of the household. This reflects the dominance of men over women in the households in terms of authority and also being the breadwinner. The nature of dominance by men is seen in areas such as household decision making and property ownership. This reflects the nature of traditional African communities where males are perceived as heads of households regardless of their statuses and that of their wives. This subscribes to the patriarchal view that men are mainly providers to the families whereas women are assigned to household chores. This assertion is also evident in the considerable number of households headed by husbands, brothers, sons and uncles.

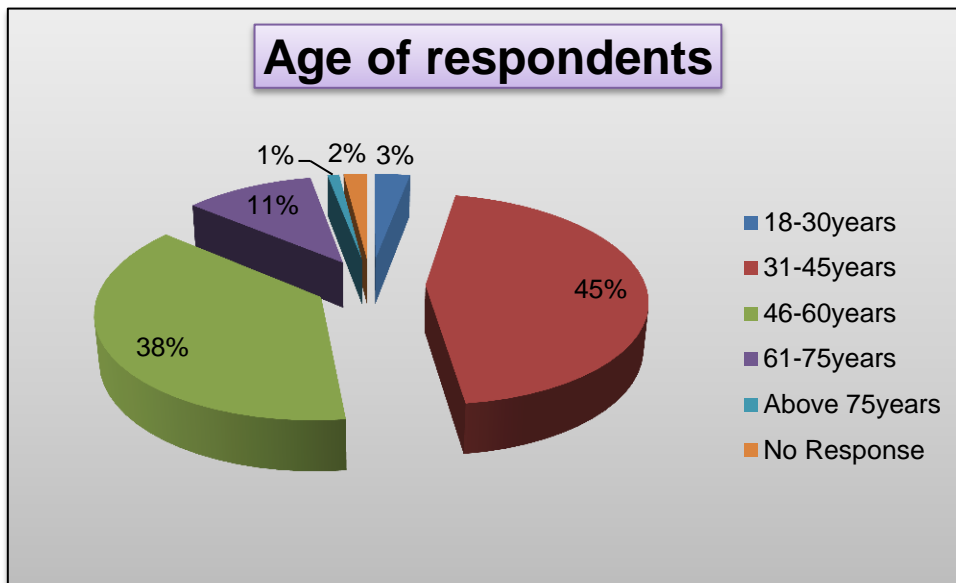
Consequently, in many African cultures, a woman who is widowed, separated or divorced by her husband is normally not left on her own. As a result of this, many cultures put in place a support system to take care of these women. They are in most cases taken care of by their adult son, an uncle or a brother from her natal

home. In some instances where women are seen as potential household heads, the headship position is often assigned to men. In recent times however, there have been an emergence of households headed by women due to increasing social stress created by the prevailing economic condition and unavailability of males in the family due to factors such as migration, divorce, male deaths and disruption in the family leading to a shift from the male dominated household headship.

#### **4.1.2. Age of household heads**

Age helps to understand an individual's personality make up, preferences, needs and their ability to make decisions which are linked to a person's experience, skills and knowledge to address challenges. This knowledge is also very important in contributing to household income and helping to improve the standard of living even of the poorest in society. The respondents of the study were asked to indicate their ages. For the purposes of analysis, the ages of the heads of households were categorized into four, namely, 18-30 years, 31-45 years, 46-60 years and 61-75 years. The age range of the respondents was from 18 to 75 years. Figure 9 shows the age distribution of selected heads of household in the three districts. Out of the 100 respondents, 98 of them responded to the question of what their ages are.

**Figure 8: Age of respondents**



Source: Fieldwork (2016)

From their responses, 3 % were between the ages of 18-30 years, 45% between the ages of 31- 45, 38% between the ages of 46- 60 years, 11% between 61- 75 years. Only 1% of the respondents were above 75 years. From the results, the economically productive ages (18-60) constitute 86% of the respondents. This means that majority of the respondents are economically active members of the population. Whether in job creation, education, health and other social services, these economically active members of the society are likely to take advantage for themselves but also other members of their households. The percentage of the respondents considered as economically inactive (61-75) are 11%. These people may not be able take advantage of job creation opportunities in the mining sector by themselves, but can however be able to access other development opportunities the mining sector can bring such as in the health sector.

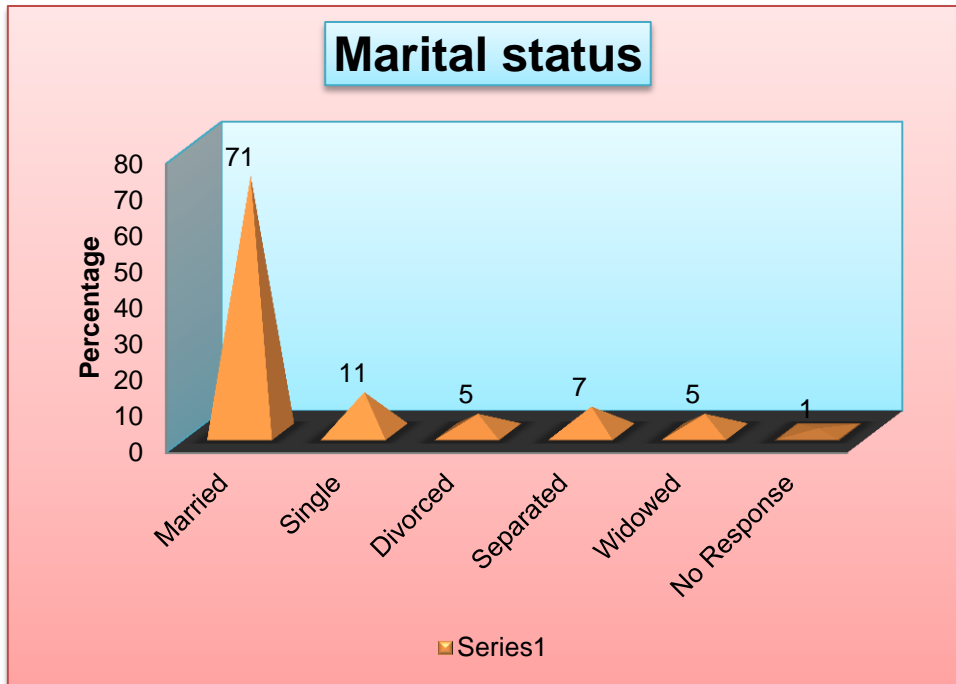
#### **4.1.3. Marital status of household heads**

In the traditional Ghanaian society, it is very unusual for men or women to decide to stay single throughout their life. Every person is expected to marry at a particular point in time in their life. The definition of marriage in the Ghanaian traditional society is clearly captured by Nukunya (2003: 43) who stated that “marriage is a union in which the couple has gone through the procedures recognised in the society for the purposes of sexual intercourse, raising of a family or companionship”. Marriage in Ghana is a union not just between the two spouses, but their families as well. As a result, it is incumbent on members of both families to ensure that they support the couple in every way possible to have a successful marriage. These supports include economic support, socializing children born out of the wedlock and helping to resolve conflict that may arise between the couple.

The marital status of household heads is a crucial indicator that can be used to predict a wide range of socio- economic outcomes. All things being equal, if the two parents are present, they can provide favourable and acceptable conditions for the children and other members of the household, as the two can collectively or individually provide the psychological, socio- emotional and environmental materials needed by members of the family for their support and wellbeing. In view of this, the respondents were asked to indicate their marital statuses. The marital status of the respondents were divided into married, single, divorced, separated and widowed.



**Figure 9: Marital status of respondents**



Source: Fieldwork (2016)

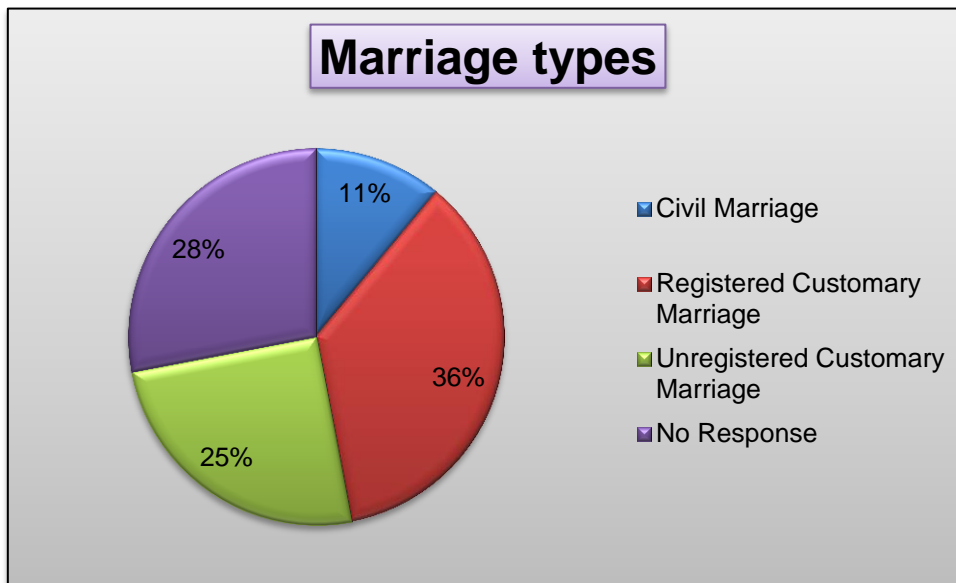
Figure 10 shows the distribution of the marital statuses of the respondents. From the figure, 99 out of the 100 respondents expressed their opinions on this question. Out of this, 71% constituting majority of them respondents were married, 11% were singles, 5% divorced, 7% separated and 5% widowed. Thus, 28% of the respondents are single household heads with the majority of 71% being married heads of households. This trend is line with Ghana Statistical Service report (GSS, 2013:84) which indicates that “currently married household heads constituted the largest proportion in both urban and rural areas...”.The proportion of single heads of households is not very significant. Perhaps, reasons for their singleness could be economic, such as lack of money to pay the bride price especially on the part of the males, or that they are waiting to meet their preferred partners. Consequently, the Ghanaian cultures insist on the payment of the bride price and the procedures for the

marriage as essential elements in the marriage definition. As a result, some of the respondents may be labelled single when indeed they may be cohabiting with their partners. Some people choose cohabitation as a test drive to a relationship before marriage. A small percentage of 5 responded that they were divorced. The low divorce rate could be as a result of the many marriages being contracted through strong customary and religious rites.

#### **4.1.4. Types of Marriage**

Marriage types, roles and characteristics differ from culture to culture and is also dynamic over time. The study categorised marriages into three types, namely, civil marriages, registered customary marriages and unregistered customary marriages. Out of the 100 respondents, 72 of them responded to their type of marriages, with the remaining 28 who did not respond. From the responses, registered customary marriages recorded the highest respondents with 36%, unregistered customary marriages recorded 25% with civil marriages recording 11%. Figure 11 below presents the responses of the interviewed heads of households.

**Figure 10: Type of marriage**



Source: Fieldwork (2016)

Figure 11 indicates that majority of the respondents are married under the customary marriages (both registered and unregistered) constituting 61% of the respondents.

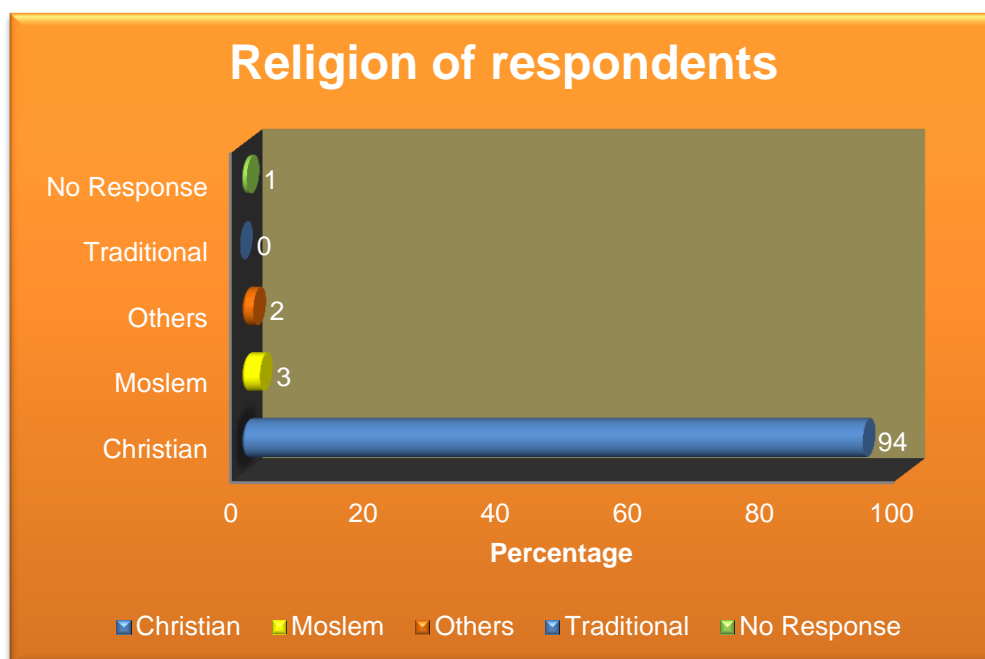
In many Ghanaian societies, customary elements have tended to precede modern types of marriages such as ordinance marriages in which the union is registered at the Registrar General's Department or the office of a City Council, and Christian or church marriage in which the union is consecrated by a Priest or minister of a church (Assimeng, 1999; Nukunya, 2003). This is so because, in Ghanaian culture, marriage is not just a union between individuals but families, and the customary marriage provides the traditional platform for this purpose. Customary marriages are not legal, unless registered but are seen as conforming to society's acknowledged standards. The non-recognition of customary marriages can sometimes bring hardship to the children born out of such marriages, since they may be seen as illegitimate children. This is because wives from civil marriages are regarded as

legitimate and sometimes are not given the same statuses as those from customary marriages. Civil and registered customary marriages enjoy the full protection of the law are regarded as legal unions.

#### 4.1.5. Religion of Respondents

Ghana's 1992 Republican constitution guarantees freedom of religion and worship. This study asked the heads of the households to indicate their religious affiliations. The religious affiliation was categorized into Christians, Muslims and others (other religions). Out of the 100 respondents, 99 responded to the question of their religious affiliation. As shown in figure 12, Christians constituted 94% of the respondents, Muslims constituted 3%, with nobody as a traditional believer and 2% as members of other religions, usually eastern oriental religions such as Buddhism and 'Eckankar' (a modern religion), which are currently gaining grounds in the country.

**Figure 11: Religious affiliations of respondents**



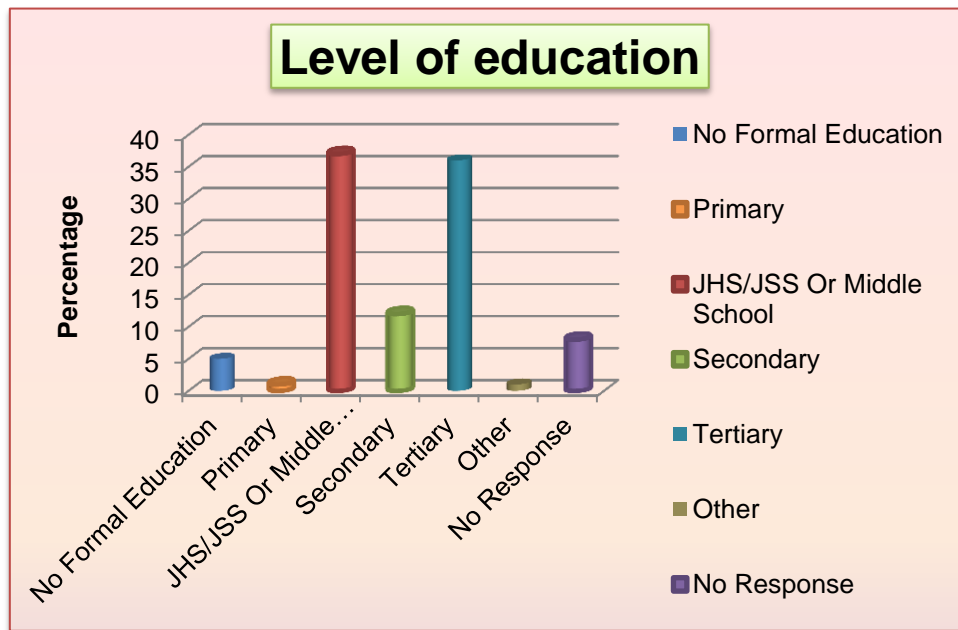
Source: Fieldwork (2016)

From the figure, a vast majority of the respondents are Christians which confirms the report of the Ghana Statistical Service (GSS)( 2013: 63) which revealed that 71.2%of the respondents were Christians followed by Muslims constituting 17.6% and 5.2% who were traditional African believers.

#### **4.1.6. Level of education of Heads of Households**

Level of education refers to the highest level of formal school attended by a person or which a person is currently attending. Education is an essential tool that provides people with the requisite knowledge skills for better employment opportunities and quality of life. Education is closely associated with human development of a people (UNDP, 2011) and as a result, one of the aims of this study. Respondents were asked to indicate their level of education. There were five categories under the level of education namely, non-formal education, primary education, Junior High School/ Junior Secondary School or Middle School, Senior Secondary School, Tertiary education and other levels. Respondents who answered to this question were 92 out of the 100. Figure 13 shows the distribution of their responses. Those with no formal education constituted 5% with 1%with primary education. Junior High /Junior Secondary/ or Middle School respondents are 37% with 12% being Senior Secondary leavers. Respondents with tertiary education constituted 36% and 1% have other forms of education. The illiteracy rate is low since 5% have no formal education, signifying that majority of the respondents are literates.

**Figure 12: Level of education**



Source: Fieldwork (2016)

The higher the educational level of a person, the more the person is likely to get access to other development opportunities that the mining sector may bring, such as education and other social opportunities. In terms of job opportunities, education can lead to a person being employed directly by a mining company or other indirect job opportunities in the mining chain. Education can also equip a person with the capacity to search for information and read what is going on, thereby helping to put on a better position to insist on their rights. In the mining communities, rights such as livelihood rights, environmental sustainability, the need to demand accountability and transparency from their leaders as well as general provision of social services can be enhanced by high literacy rates.

**4.1.7. Household unit**

Household size refers to the total number of people in a household regardless of age, sex, or residential status (Ghana Statistical Service, 2013:70). Household size in this study is measured by the number of persons residing in a single house, and

shares the same resources and activities for a living. These people may or may not be related by ties of consanguinity but normally live and eat together. The size of the household was categorized as follows; 1-3 members, 4-6 members, 7- 9 members and 10-12 members. From Table 6 majority of the households were in the category 4-6 persons recording 58%. This is followed by 1-3 members recording 38% and 4% for 7-9 persons with no household in the category of 10 and above persons.

**Table 5: Household sizes**

<b>Household size</b>	<b>1-3</b>	<b>4-6</b>	<b>7-9</b>	<b>10 and above</b>
<b>Number of responses</b>	38	58	4	0
<b>Percentage of Respondents</b>	38%	58%	4%	0%

Source: Fieldwork (2016)

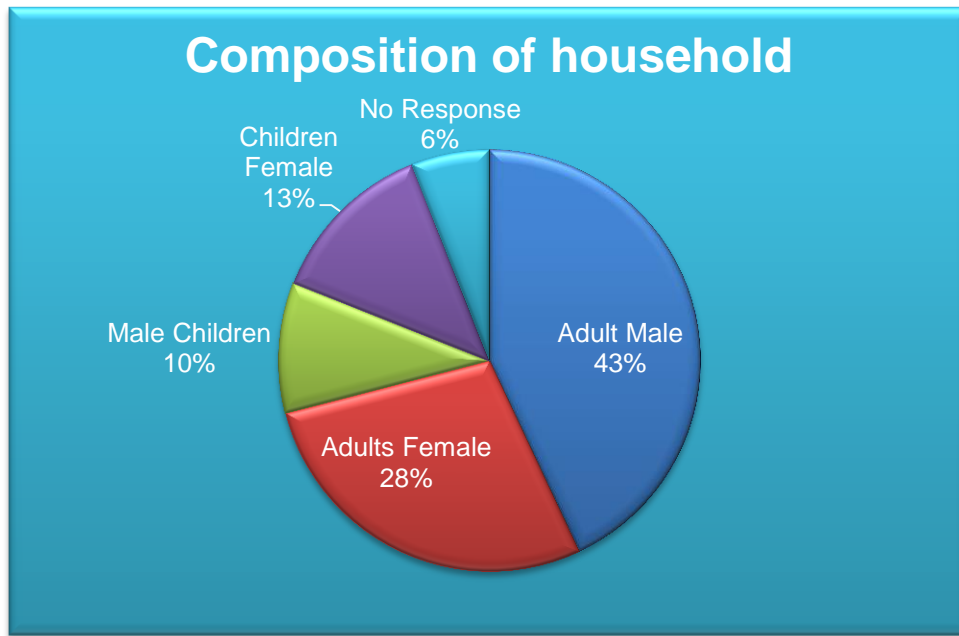
According to the Ghana Statistical Service (2013), the average (mean) size of a household in Ghana in the 2000 national census was 5.1 persons which declined to 4.4 persons in the 2010 census. This therefore means that majority of the household size in this study (4-6 persons) is the same category as the national average in the 2010 national census (4.4 persons). Large household sizes (7 persons and above) may be mainly due to the extended family of many African societies. However, factors such as education, urbanization, family planning and high cost of living could also be contributing to small household sizes (1-4 persons).

#### **4.1.8. Composition of household**

The composition of a household is crucial in analysing the socio-economic well-being of household members in that, it helps to determine the dependency ratio of these households. Respondents were asked to indicate the composition of their households in terms of male adults, female adults, male children and female

children. Figure 14 gives the distribution of their responses and indicates that 94 out of the 100 respondents responded to this question.

**Figure 13: Composition of household**



Source: Fieldwork (2016)

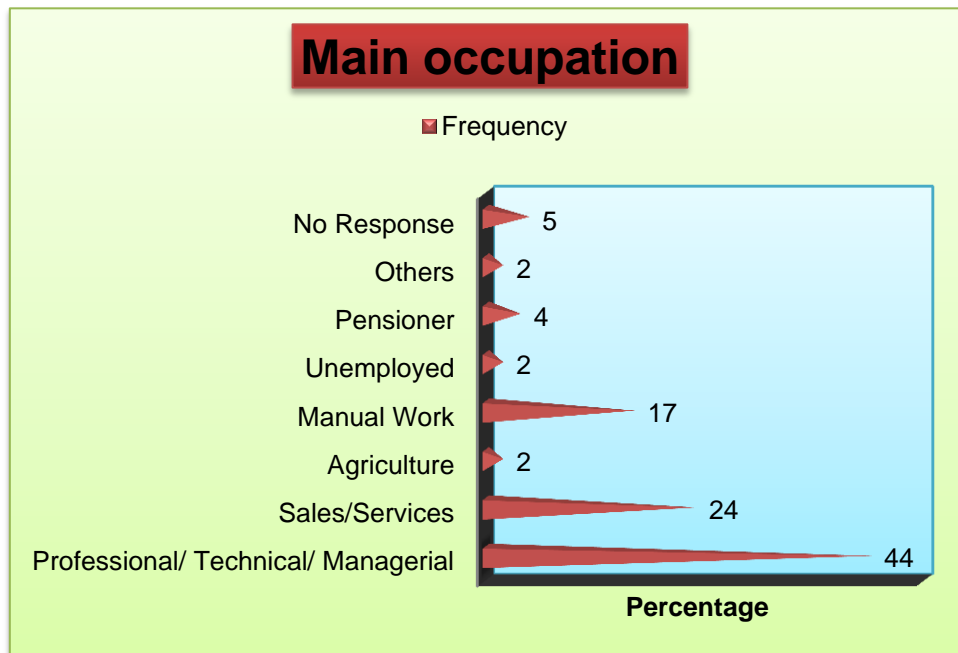
The study revealed that 43% constituted male adults in the households selected for the study whilst 28% constituted female adults in the households selected. The proportion of male children constitutes 10% with 13% representing female children. This means that out of the households selected for the study, 71% of the household members are adults with 23% being children in the households selected for the study.



#### 4.1.9. Occupation of Household Heads

Broadly defining, occupation focuses on the various kinds of economic activities people engage in for their livelihood. Occupation of a person gives an idea of his/her social status and therefore their socio- economic well-being. The head of the households were to indicate their occupations. Out of the 100 respondents, 95 responded to this question. The study categorized the occupation of the respondents into; professional/ technical/ managerial, sales/services, agriculture, manual work, people who are unemployed, pensioners and other occupations not captured in the categories mentioned. In figure 8, 44% of the respondents are in the technical/managerial category, the sales / services sector constituted 24%, agricultural sector constituted 2% , 17% in manual work, 2% unemployed, 4% are pensioners with 2% falling in the other categories not captured in any of the above mentioned.

**Figure 14: Main occupation of head of household**



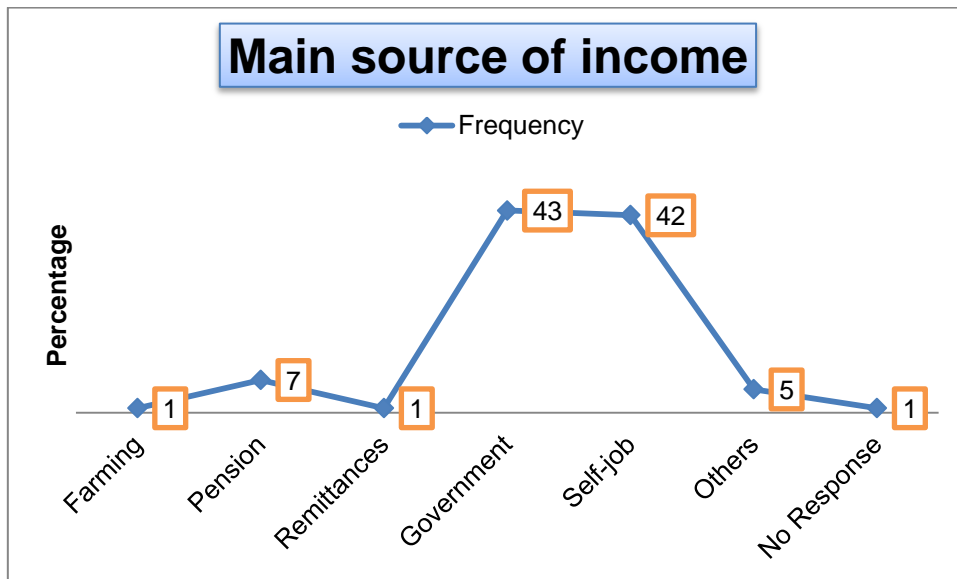
Source: Fieldwork (2016)

With 44% of the respondents in the professional/technical /managerial sector, it means that many of the household heads have some skills or professional training. Again, as in many mining towns, the sales (retail) and services sector employs quite a large number of people due to the boost the sector resulting from the mining activities. Some unskilled opportunities are also created in the area as well. Generally, however, unemployment is rather on a low side with only 2% in the category. This trend could be that, perhaps due to the high cost of living, almost everyone tries to find some work to do so as to make a living. However, agriculture, which is the mainstay of the Ghanaian economy, only employs 2% of the respondents. The reason for this situation could be several; however, the most obvious one could be that many people are attracted to the mining sector and its related activities to the detriment of the agricultural sector. This situation is prevalent in mining communities, whereas agriculture continues to be the main occupation of people in non-mining communities.

#### **4.1.10. Household source of income and Annual income**

The respondents were asked to indicate their sources of income and their annual income estimates. In Ghana, just like many other countries, the main sources of income for many people are often from their main occupation. The sources of income had the following categories, farming, pensioners, remittances, government, self-job and others. Out of the respondents 99% responded to this question.

**Figure 15: Main source of income**

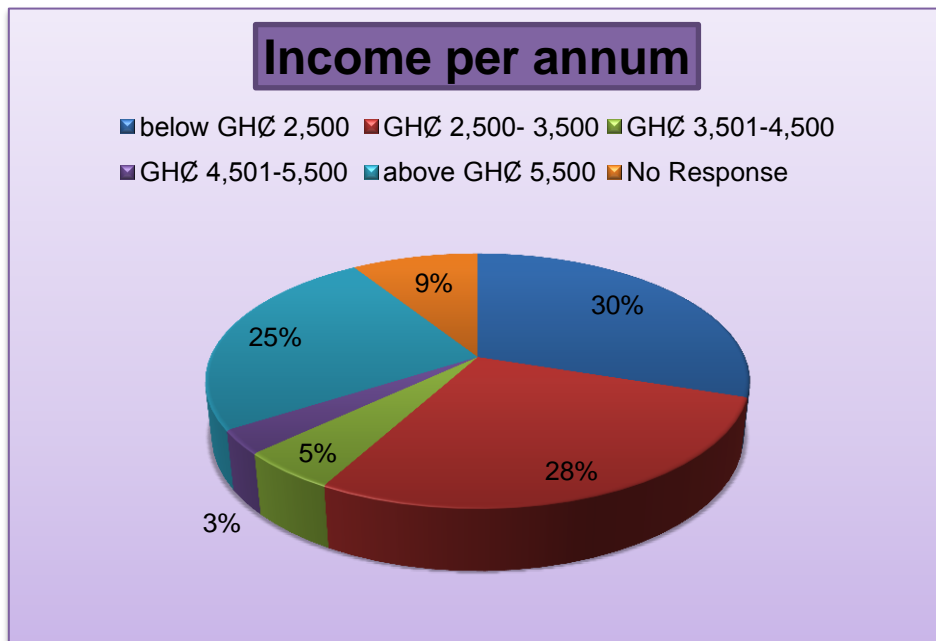


Source: Fieldwork (2016)

As shown in figure 9, respondents who get their sources of income from government constituted 43%, those from self-job (private jobs) constituted 42%, with 7% from pension sources, 1% from farming, 1% from remittances and 5% from other sources.

Furthermore, the respondents were made to state their annual range of income. The Ghanaian cedi was used to measure the income of the heads of households. The currency is however weak against the US dollar, with 1 US dollar equivalent to about 3.95 Ghanaian cedis. Figure17 shows the annual income of the interviewed respondents. The Ghanaian currency symbol (GH ₵) is used. From the figure, 30% earn less than Gh ₵2,500, 28% earn between 2,500- 3,500, 5% earn 3,501- 4,500, 3% earn 4,501- 5,500 with 9% not responding to the question.

**Figure 16: Household incomes per annum**



Source: Fieldwork (2016)

The response indicates that majority of the respondents earns Gh¢ 3,500 or less annually which is equivalent to US \$ 886.07. Internationally, the World Bank considers a person living below \$1.9 per day (approximately \$ 693.5 per annum as poor, since he/she is living below the poverty line. Such poverty translates into high cost of living or unaffordability of certain basic needs such as food transport, clothing, education and health care. With low unemployment levels, poor standard of living could be explained by low income earning from their various jobs.

## **4.2. HOUSING CONDITIONS AND WELLBEING OF HOUSEHOLD MEMBERS**

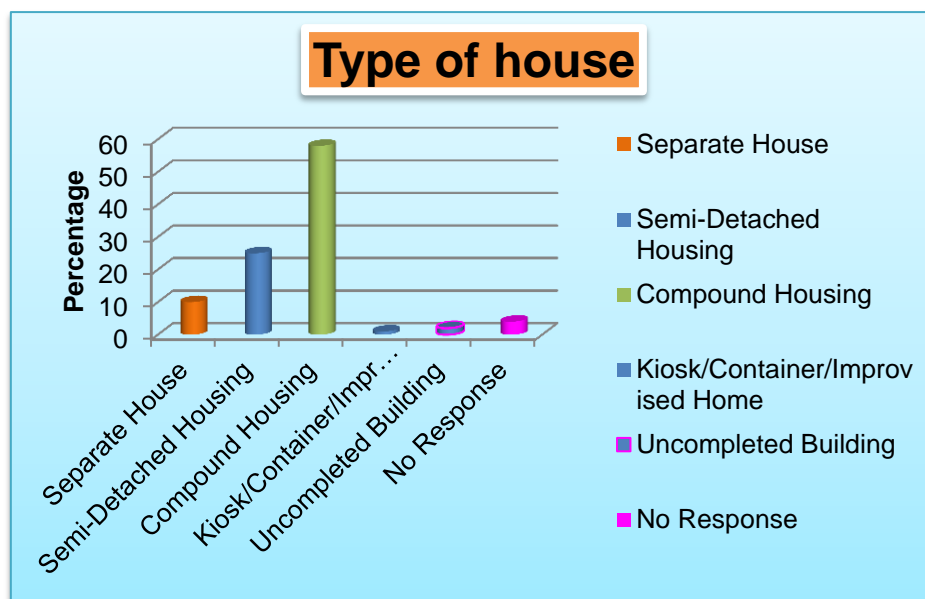
This section analyses the housing conditions and wellbeing of the household members in the three districts selected for the study.

### **4.2.1. Household House**

The United Nations (UN, 2008:9) defines a house as “structurally separate and independent place of abode such that a person or group of persons can isolate

themselves from the hazards of climate such as storms and the sun”. This therefore means that a house is an independent and structurally separate place of living for people. The most important characteristics are the separateness and independence. Enclosures could be considered as separate provided it is surrounded by fences, walls and other conducive materials such that a person or group of persons will be separated from others in the community for purposes such as sleeping, cooking and eating as well as protecting themselves from climate hazards such as severe wind and rainfall. The study’s definition of house covered separate houses, semi-detached houses, compound houses, kiosks/ containers/ improvised homes and uncompleted buildings. The study asked the respondents to indicate the type of houses they live in.

**Figure 17: Household type of house**



Source: Fieldwork (2016)

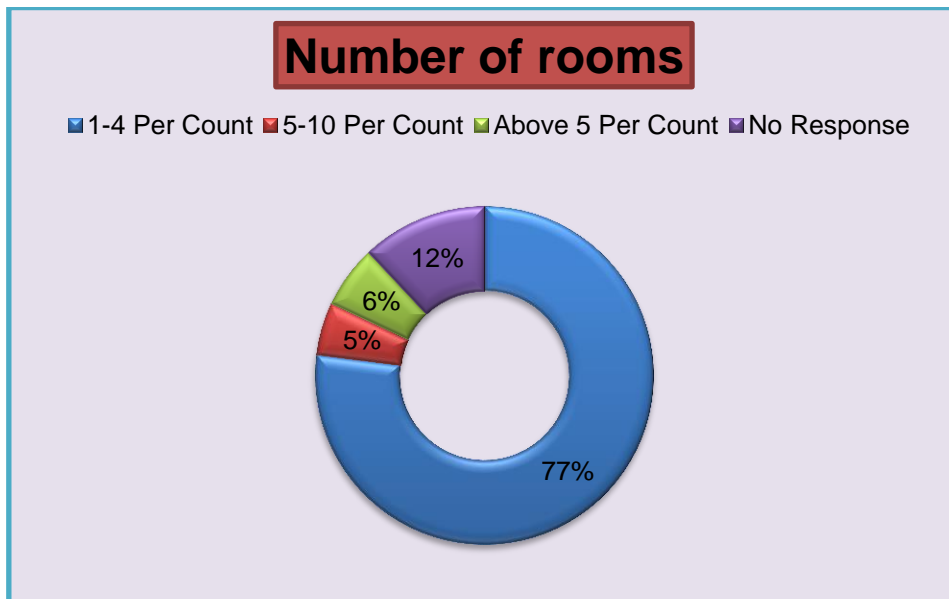
Figure 18 gives the distribution of their responses and shows that 96 of the respondents out of the 100 responded to this question. The study revealed that 10% of the respondents live in separate houses, 25% live in semi-detached houses, 1%

live in kiosk/ container/ improvised house, 2% in uncompleted houses. A narrow majority of the respondents constituting 58% live in compound houses, which are houses with different households occupying different rooms. This form of household is the most common type of household in Ghana. In Ghana's 2010 national census, the Ghana Statistical Service (GSS, 2013: 376) reported that "... at both the national and regional levels, the compound houses was the most common form of dwelling unit accounting for more than one-half of the total of houses...". All things being equal, a household's housing type can be used to determine the standard of living of the household. The reason being that, households with very low standards of living often live in compound houses whereas separate and semi-detached houses are occupied by households with relatively high standards of living. Kiosk/ containers/ improvised houses are often occupied by poor households because most of them will not be able to afford the cost of renting a house.

#### **4.2.2. Number of rooms in the household**

According to the Ghana Statistical Service (GSS, 2013: 376) a room is defined as "a space in the housing unit or other living quarters enclosed by walls reaching from the floor to the ceiling or roof covering, or at least to a height of two metres, of a size large enough to hold a bed for an adult, that is at least four square meters". The study adopted this definition because it reflects the nature of rooms in Ghana. The number of rooms of a household can also determine the standard of living of the household. There is also a correlation between household income size and the number of rooms in the household, in relation to the size of the household. The respondents of the study were made to indicate the number of rooms in their households. Out of the 100 respondents, 88 of them responded to this question.

**Figure 18: Number of rooms**



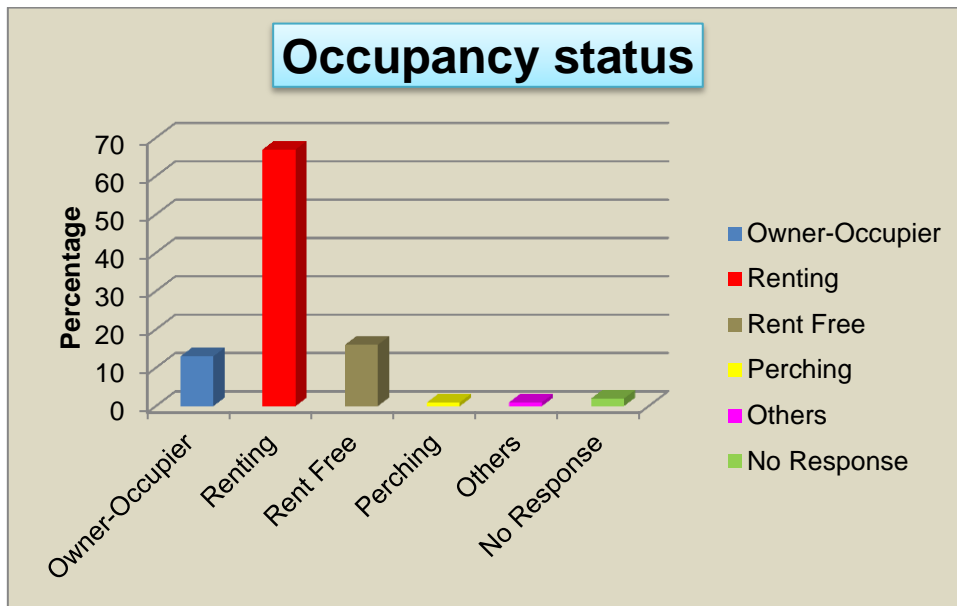
Source: Fieldwork (2016)

Figure 19 gives a breakdown of their responses. Majority of the respondents representing 77% of the households selected for the study have rooms from 1-4 rooms, the number of households with 5-10 constitutes 5% with 6% having above 5 rooms.

#### **4.2.3. Occupancy status of household heads**

Figure 20 shows the holding arrangements and tenure of the units of dwelling among the respondents. From the figure, four major types of tenures exist in Ghana, namely, renting, rent- free and owner –occupier. The proportion of households that falls into the category of owner occupier is 13%, 16% of the respondents indicated that their occupancy status is rent- free with 1% perching. Majority of the dwelling units are rented properties.

Figure 19: Occupancy statuses



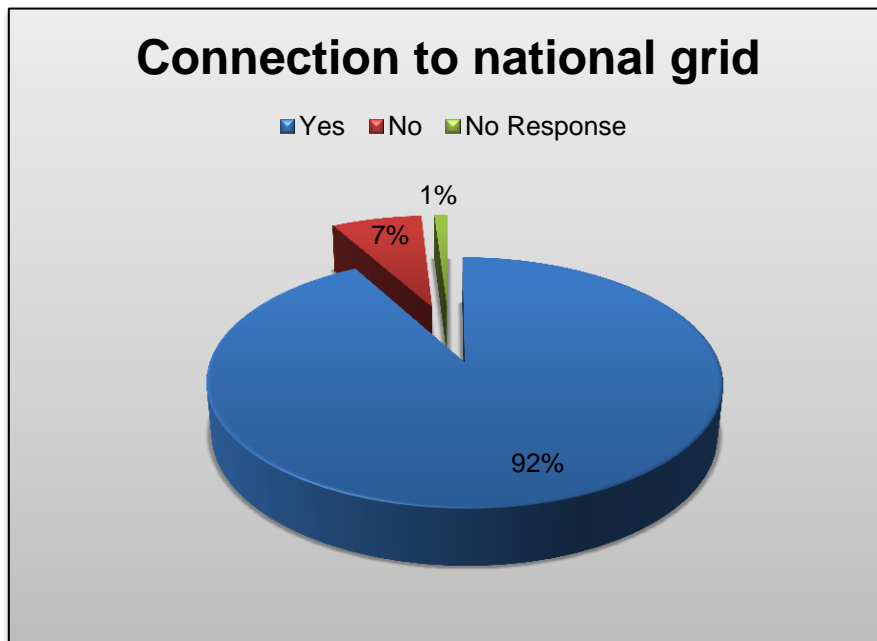
Source: Fieldwork (2016)

#### 4.2.4. Household Connection to electricity

The nature of the power source is one of the crucial indicators for accessing the quality of life of a people and has nowadays become a human right. Improvements in society shift the source of lighting from low quality sources which include firewood to electricity which is a more efficient source. Figure 21 shows the distribution of the main sources of electricity connection for the selected households for the study.



**Figure 20: Figure 21: Connection to the national grid**

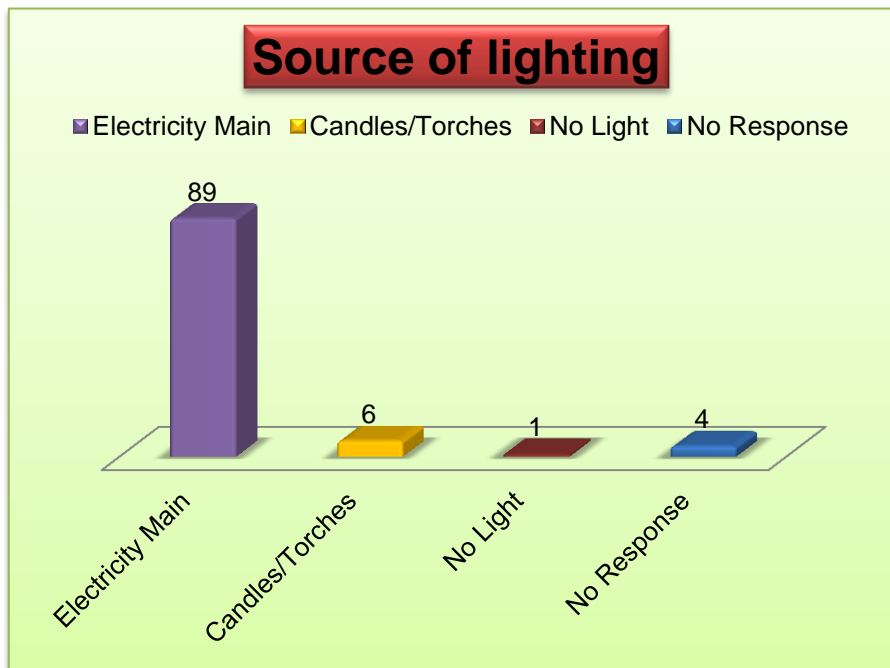


Source: Fieldwork (2016)

The figure indicates that the main source of electricity connection is the national electricity grid with a vast majority of 92% of households connected to it whilst 7% are not connected to the national grid. This implies that the Western region is not different from other parts of the Ghana in terms of electricity connection to the national grid.

Accordingly, the Ghana Statistical Service (GSS) (2013) identified the main sources of housing for households as electricity (grid), kerosene lamp and candles/ torches. However, recently, there has been the introduction of solar energy sources for households.

**Figure 21: Sources of lighting**



Source: Fieldwork (2016)

Figure 22 shows the sources of lighting for the interviewed households. From the figure, the main source of lighting for the interviewed households is the electricity (grid) which constitutes 89%, followed by candles and torches which constitute 6% with only 1% without electricity.

Respondents were further asked to indicate how regular their main power supply after sunset. Regular electricity supply is very essential for the development of every society. Table 7 shows the distribution of their responses. Out of the 100 respondents interviewed, 88 of them responded to this question.

**Table 6: Regular power supply**

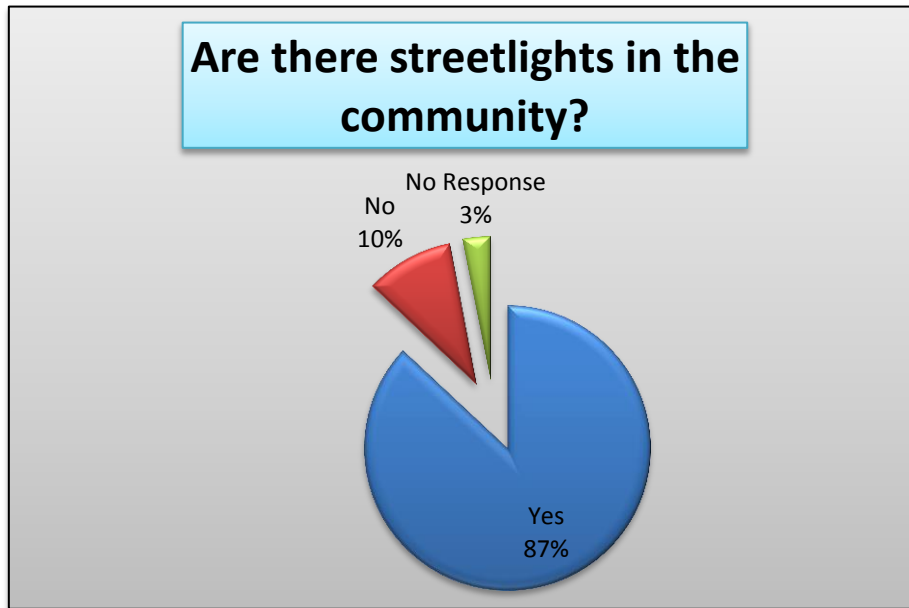
<b>How regular is your main power supply after sunset</b>	<b>Frequency</b>	<b>Percent</b>
<b>Regular</b>	19	23%
<b>Cut Once or Twice in A Week</b>	51	63%
<b>Cut More than Twice A Week</b>	16	20%
<b>Others</b>	2	2%
<b>No Response</b>	12	15%

Source: Fieldwork (2016)

From the table 12, the respondents were made to select from the options provided and shows that 19% of them that 19% indicated that they have regular power supply, 16% responded that their power cuts more than twice a week. The proportion of the respondents who indicated that their power cuts once or twice in a week constituted a narrow majority of 51% with 2% indicating that their option is not captured in any of the categories.

Furthermore, equally important on the issue of lighting is the availability of street lights, and it is one of the ways of determining the standard of social amenities in a community. In Ghana, the unavailability of streetlights is not just a common feature of rural areas but also of urban areas. The respondents were asked to indicate whether they have street lights in their communities. Out of the 100 respondents, 97 responded to this question. Figure 23 shows the distribution of their responses. From the figure, a vast majority constituting 87% of the respondents indicated that they have street lights in their communities, 10% indicated that they do not have street lights in their communities.

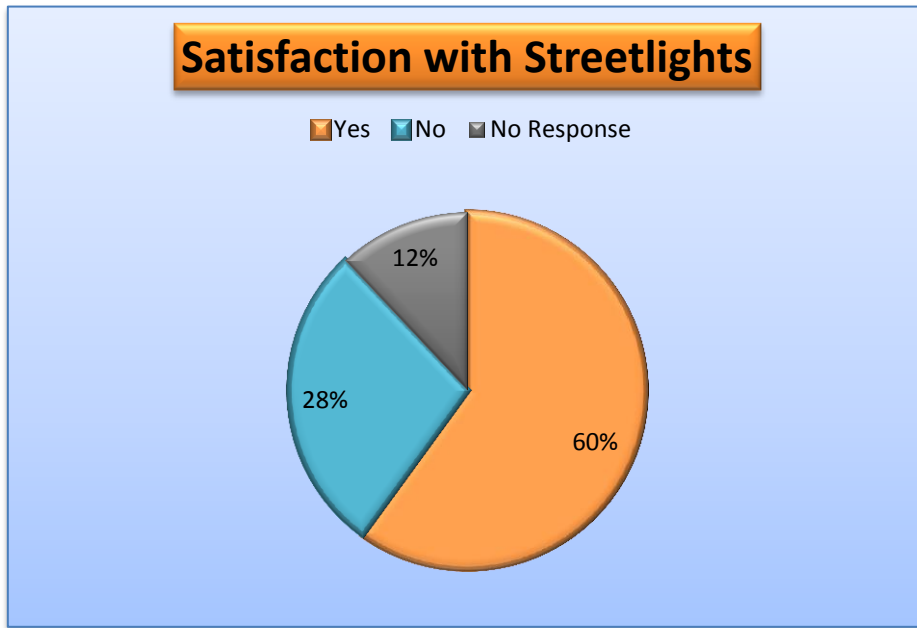
**Figure 22: Streetlight in the community**



Source: Fieldwork (2016)

This was followed by their level of satisfaction with regards to the regularity of the street lights being put on and also maintenance issues. Out of the 100 respondents, 88 of them responded to this question. Figure 24 gives the distribution of their responses and indicated that majority of the respondents constituting 60% indicated are satisfied with 28% also indicating that they are not satisfied with the street lights.

**Figure 23: Satisfaction with streetlight**



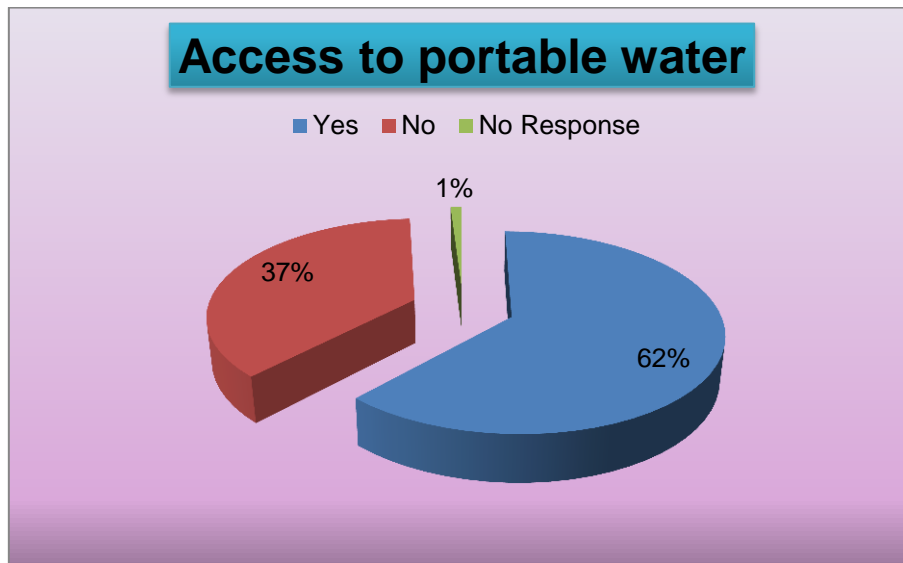
Source: Fieldwork (2016)

#### **4.2.3. Source of drinking water for household**

The well-being of household members to a very large extent is dependent on the availability of and accessibility to safe drinking water. Sources of drinking water can have tremendous effects on disease burdens of households. For example, clean drinking water can help to reduce water borne diseases such as diarrhoea, bilharzia, typhoid and cholera. This can help to promote a healthy and productive life among households.

The sources of water can be classified as 'improved' or 'unimproved' sources. The safe water sources include pipe public water into homes, public stand pipe, protected (lined) dug well, borehole, and protected collected rain water. The unimproved sources are wells that unprotected, vendors and tanker- trucks (WHO and UNICEF, 2000 cited in GSS, 2013: 393).

**Figure 24: Access to portable water**



Source: Fieldwork (2016)

Figure 25 shows the distribution of their access to drinking water for the households. From the figure, out of the 100 respondents, 99 of them responded to this question.

The proportion of respondents who indicated that they have portable water in their homes constitutes 62% with 32% responding that they do not have portable water in their homes.

Similarly, on the question of what is their main source of water supply.

**Table 7: Household sources of water supply**

Main Source of Water Supply for household	Frequency	Percent
Inside Pipe Stand	50	50%
Pipe in Neighboring house	21	21%
Water Vending/ Tanker Service	3	3%
Bore hole	18	18%
Well	7	7%
River/Stream	1	1%
<b>Total</b>	<b>100</b>	<b>100%</b>

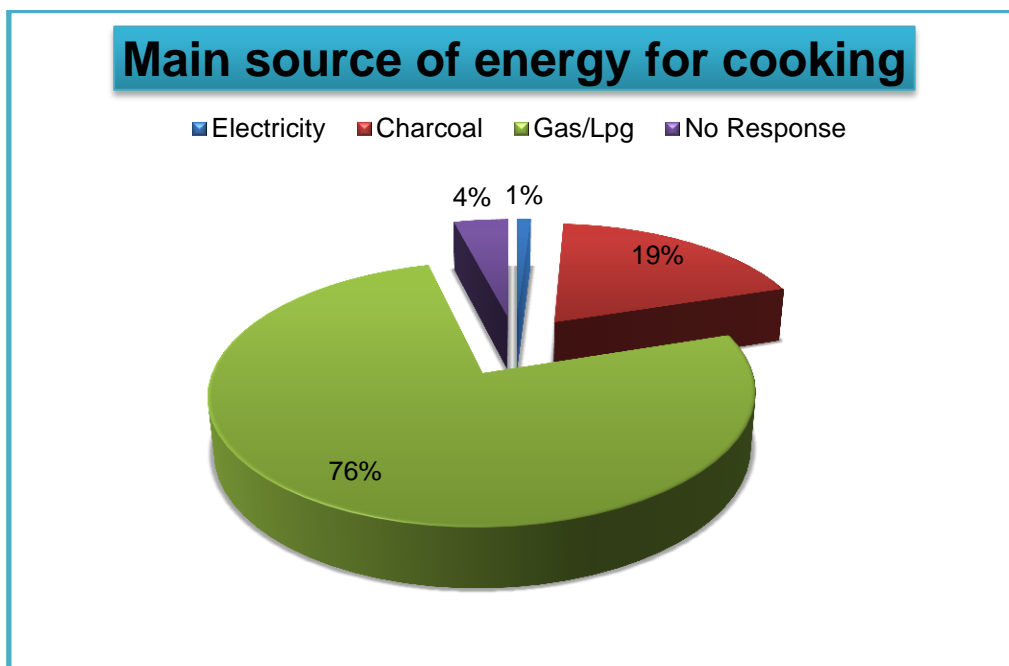
Source: Fieldwork (2016)

Table 8 shows the distribution of the responses given by the household heads. From the figure, there are six main sources of water supply for the households as follows, inside pipe stand which constituted 50%, pipe in neighbouring house which constitute 21%, water vending / tanker services which constitute 3%, bore hole which constitute 18%, well which constitute 7% and rainwater which constitute 1%.

#### 4.2.4. Household source of energy for cooking

One other indicator that can be used to measure the standard of living and human development of a household is the source of energy for cooking. Figure 26 shows the distribution of the sources of energy for cooking in Ghana.

**Figure 25: Household main source of energy for cooking**



Source: Fieldwork (2016)

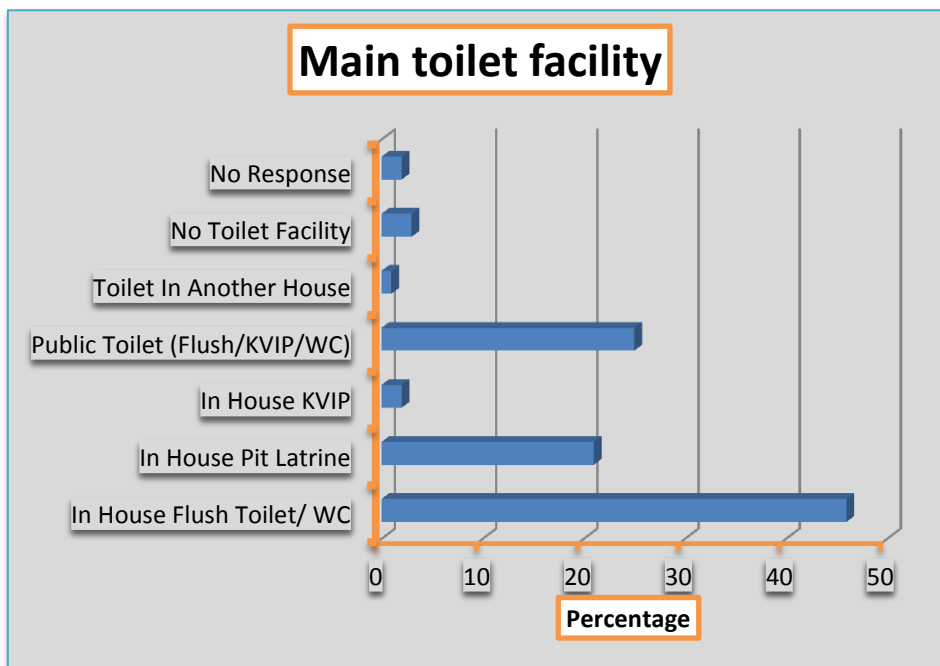
There were 4 non-respondents to this question. The main sources of cooking are, charcoal, firewood, liquefied petroleum gas (LPG) and electricity. The study revealed

that majority of the respondents 76% uses liquefied petroleum gas (LPG) followed by households that uses charcoal which constitutes 19% and 1% using electricity.

#### 4.2.5. Sanitation: toilet facilities

One of the important indicators of a sanitary condition is a hygienic and efficient disposal method of human waste. Public health is one of the indirect ways of measuring a household socio-economic status. However, it is often a neglected aspect of development in developing countries. Figure 27 shows the distribution of toilet facilities in the households selected for the study. Out of the 100 respondents, 3 did not respond to this question.

**Figure 26: main toilet facilities**



Source: Fieldwork (2016)

There are five main sources of toilet facilities in Ghana. The highest facilities reported are in-house flash toilet also known as water closet (WC) constituting 46%

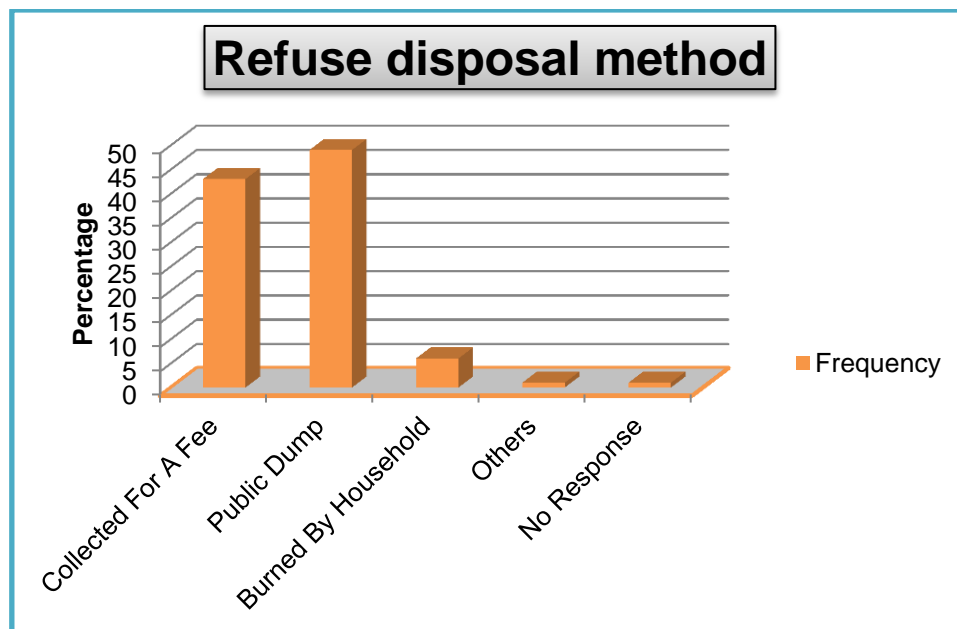


of the responses, in-house pit latrine constituted 21%, in-house Kumasi ventilated improved pit (KVIP) constituted 2% of the responses, public toilet (flush/KVIP/WC) constituted 25% of the responses, toilet in another house constituted 1% of the responses, households with not toilet facilities constitutes 3%.

#### 4.2.6. Sanitation: disposal of refuse (solid waste)

Adopting modern and hygienic system of solid waste disposal in both rural and urban areas of Ghana has been a major challenge. Acceptable and hygienic waste management system helps to prevent the breed and spread of some contagious diseases and also helps to contribute to the improvement of the quality and sustainability of the environment. Figure 28 shows the distribution of the various mediums for waste disposal.

Figure 27: Method of refuse disposal



Source: Fieldwork (2016)

From the figure, the most commonly used medium of solid waste disposal is the public dump, which is dumping in either a container or an open dump site, constituting 49% of the responses. This is followed by the medium where the solid waste is collected for a fee, constituting 43% of the responses. Solid wastes that are burned by household constitute 6% of the responses with 1% disposing their solid waste in other ways not indicated in any of the options provided.

### **4.3. EDUCATION AND HUMAN CAPITAL**

Education provides the vital tool for the general development of every society; hence, it is a critical indicator for measuring human development. Accordingly, the Ghana Statistical Service (GSS, 2013) defines education as the process whereby people acquire knowledge, skills, attitudes and values to enable them to develop fully their human capitals for the wellbeing of society.

Ordinarily, one could argue that, there should be a positive relationship between mining boom on one hand and development in education on the other hand. In like manner, the United Nation Development Programme (UNDP, 2011) affirms this notion when it reported that there is a correlation between education, human resource development and general economic growth.

Consequently, countries the world over, especially those in the developed North place high emphasis on formulating and implementing educational policies that promote human development. Similarly, education is also seen as one of the components of human development which can help to eradicate the three ills of society, namely poverty, ignorance and diseases. It is as a result of this that both the Millennium Development Goals (MDG) and the Sustainable Development Goals (SDG) have education as one of its development strategies. The importance of

spending mineral rents on human skills development was underscored by a mineral resource expert interviewed as part of the studies, who responded that;

*“The rents from the mining sector must be used to develop other sectors of the economy and more importantly, the human resources. Since mining is a capital intensive sector, not many people can be employed in that sector; therefore mineral rents should be spent in other sectors that can create jobs. Also it should be spent on the human skills development of the people”*

(Interview with a mineral resource expert, University of Ghana, 30<sup>th</sup> July, 20017)

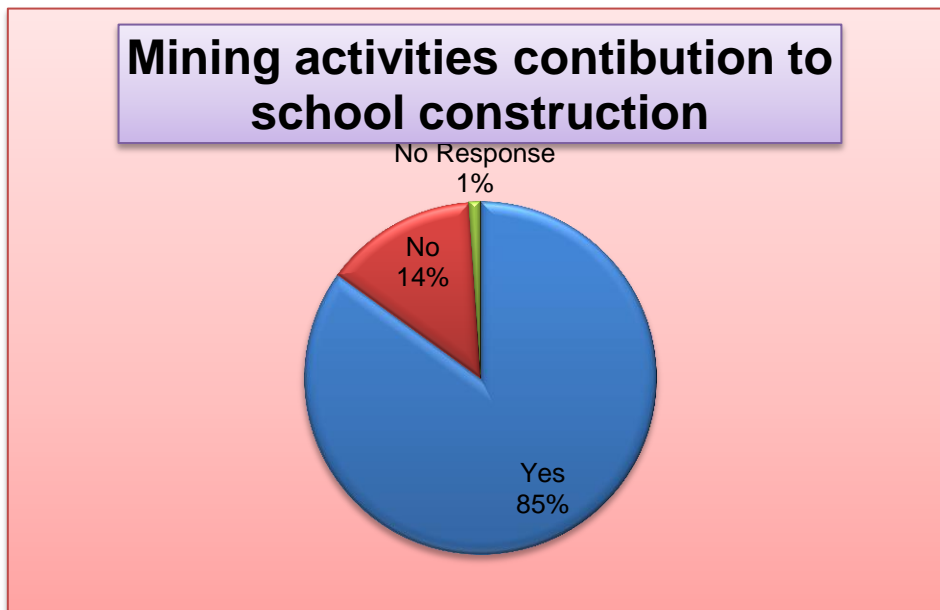
Though Ghana has made high gains in achieving the universal basic education as a result of the introduction of the Free Compulsory Universal Basic Education (FCUBE) policy which was adopted by the government in 1961, there still remain huge challenges in quality education especially at the basic level, as well as affordability challenge in the second and tertiary levels of education (Ghana Statistical Service, 2013).

#### **4.3.1. Access to education in the Western Region**

##### **4.3.1.1. Construction of schools**

The respondents from the Western region of Ghana where mining is done on a large scale were asked to respond to the question of whether mining revenues have contributed to the construction of schools in their communities. Figure 29 shows the distribution of their responses and indicates that 99 out the 100 responded to this question. From their responses, a vast majority of the respondents constituting 85% indicated in the affirmative with 14% disagreeing with the question.

**Figure 28: Contribution of mining revenues to the construction of schools**

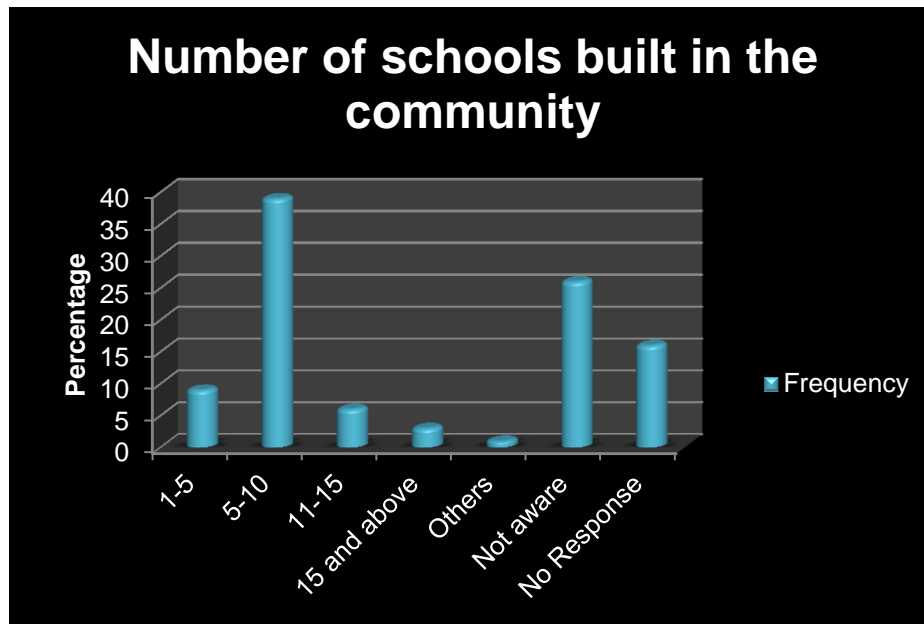


Source: Fieldwork (2016)

When they were asked for their further explanations to justify their responses, some of those who responded in the affirmative added that the mining companies only construct schools in their catchment areas. Others also explained that apart from the schools, the mining companies also provide school buses, community centres and the establishment of scholarships for but brilliant but needy students.

Similarly, the respondents were asked to indicate the number of schools in their communities. Figure 30 shows the distribution of their responses which may only reflect the situation in their local and immediate communities.

**Figure 29: Number of schools built in the community**



Source: Fieldwork (2016)

From the figure 39% of the responses indicated that there are 6 to 10 schools in their communities. The respondents who opted for 1 to 5 constitutes 9%, 11 to 15 represents 6% of the respondents, 15 and above represents 3%, other responses not indicated represents 1%, 26% of the respondents were unaware of the number of schools in their communities and 16% did not indicate any of the options given. The field data therefore supports that the mining companies fund the construction of schools in especially mining communities. In order to compare this with secondary data from the District and Municipal Education offices of the three districts selected for the study, efforts were made to obtain such data, however only one, Takwa Nsaeum Municipality provided such data. In the 2010 census, the Ghana Statistical Service (2013) estimated the population of Takwa Nsuaem at 90,477. The average annual population growth has been 2.5%, which means that from 2010 to 2015, the Municipality's population has grown to about 101,786.6. It is estimated that those aged 0-24 years old constitutes 58.3% of the total population. As a result, the

estimated number of people from kindergarten to Senior High School (0- 24 years) is 59,342 people. Below is the breakdown of the number of schools in the Takwa Nsuaem Municipality.

**Table 8: Number of schools and Enrolment levels in the Takwa Nsuaem Municipality**

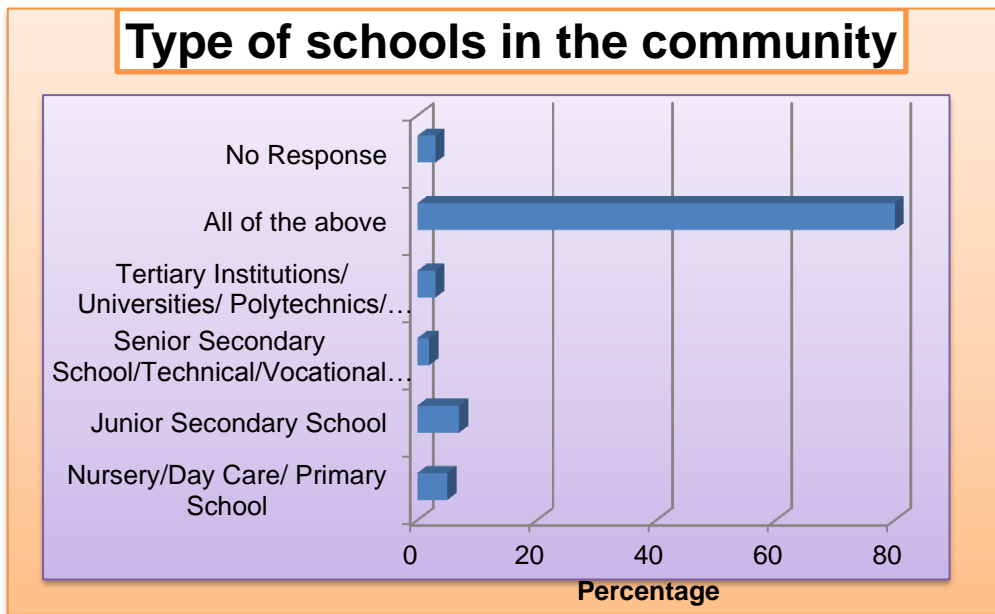
<b>LEVEL</b>	<b>NUMBER OF SCHOOLS</b>	<b>ENROLMENT</b>
Kindergarten	67	5159
Primary	68	17526
JHS	56	7377
SHS	3	3178

Source: Municipal Education Office, Tawka Nsuaem, 2016

#### **4.3.1.2. Types of Schools in the community**

Ghana's educational system can be categorized into the basic level, second cycle level and the tertiary levels. Figure 31 captures the various types of educational institutions in the country. These are nursery/ day care/ primary schools, juniorsecondary/technical/vocational schools, tertiary institutions/Universities/Polytechnics/Training colleges.

**Figure 30: Types of schools in the community**



Source: Fieldwork (2016)

A vast majority of the respondents representing 80% indicated that all the above mentioned types of schools exist in their communities. Respondents who indicated that only nursery/ day care / primary school exist in their community constituted 5%, 7% indicated that there are only junior secondary schools, 2% indicated only senior secondary / technical vocational schools, 3% indicated only tertiary institutions / universities /polytechnics / training colleges and 3% did not respond to any of the options given. The available data shows that all types of schools exist in the Western region. On the other hand, secondary data obtained from the Takwa Nsuaem Municipality revealed a rather pyramid nature of the number of schools in the Municipality and the entire Western Region. From table 14 the Municipality has 67 kindergarten, 68 primary schools, 56 junior high schools, 3 senior high schools and 1 tertiary institution. There are more schools at the basic education levels with very few schools at the second cycle and tertiary levels. This trend however is not different from what exist in other non- mining regions of Ghana. This is so because most

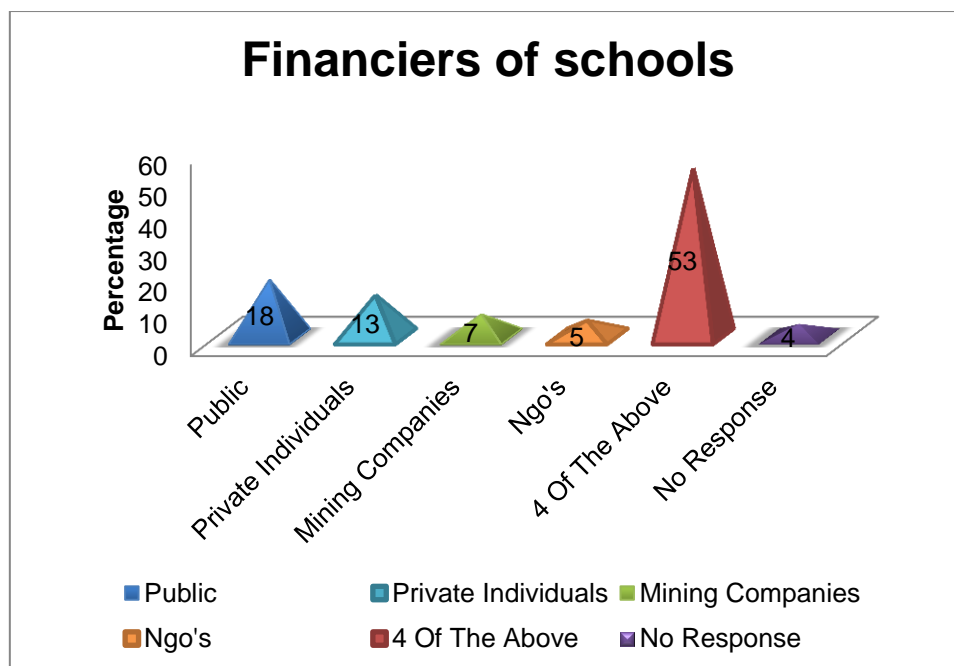
education policy interventions in the past have focused on the basic education to the neglect of the tertiary level.

#### 4. 3.1.3. Sources of funding schools in the community

Funding plays a critical role in the access, affordability and overall quality of education. The sources of funding for schools can vary depending on the ownership of the school, the purpose of its establishment, among other factors. The one who funds these educational institutions has a key stake in its running.

In Ghana, the sources of funding include public (government sources), private individuals, mining companies (in the case of mining communities) and non-governmental organizations (NGOs). Figure 32 shows the distribution of the various sources of funding for the schools in the mining communities. Out of the 100 respondents, 96 of them responded to this question.

**Figure 31: Financiers of schools**



Source: Fieldwork (2016)

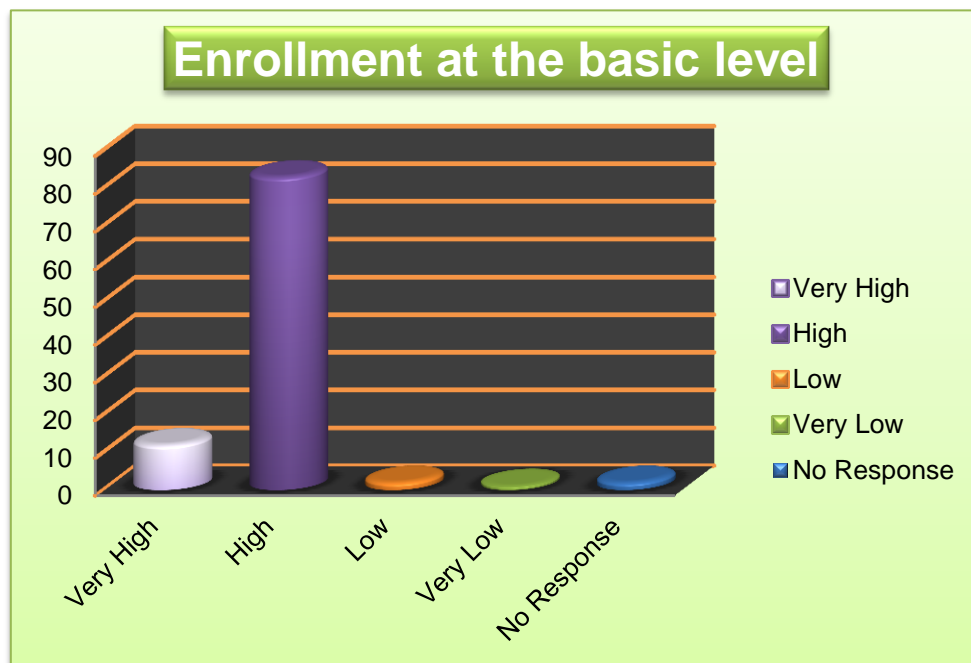


As shown in the figure, a narrow majority of the respondents constituting 54% indicated that schools in their communities are funded by all the four above mentioned sources. The proportion of respondents who indicated that the sources of funding for schools come from public (government) only constituted 18%, 13% indicated private individuals only, 7% indicated the mining companies only, 5% Non - Governmental Organizations only.

### 5.3.1.4. School Enrolment in the Western Region

Basic education in Ghana generally consists of 2 years of kindergarten, 6 years of primary school and 3 years of junior high school. In each of the levels of education, respondents were asked to indicate the enrolment of students by ranking on the scale of very high, high, low and very low. Figure 32 shows the distribution of their responses. Out of the 100 responses, 98 responded to this question.

**Figure 32: Enrolment at the basic level**

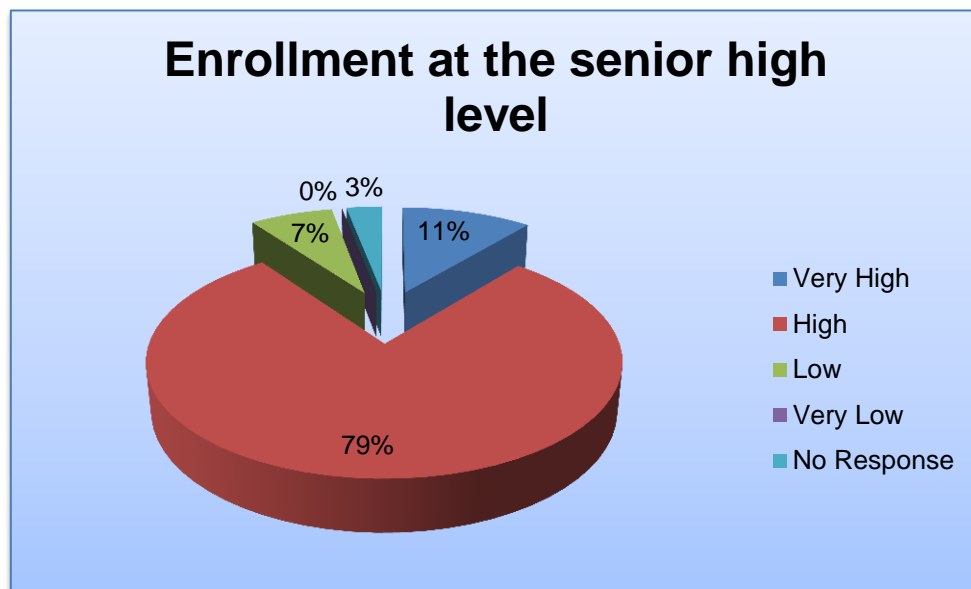


Source: Fieldwork (2016)

As shown in the figure, a vast majority of the respondents constituting 83% indicated that enrolment at the basic level is high, 12 % indicated that enrolment at this level is very high, 2% indicated that enrolment at this level is low and 1% indicated that enrolment is very low at this level. Generally, enrolment is high at the basic level of education.

Similarly, respondents were made to rank the enrolment at the second cycle level (which includes senior secondary school, technical schools and vocational schools). The secondary school level is made up of 4 years of schooling. Figure 33 shows the distribution of the responses of the selected heads of households. Out of the 100 respondents, 97 responded to this question.

**Figure 33: Enrolment at the senior high level**



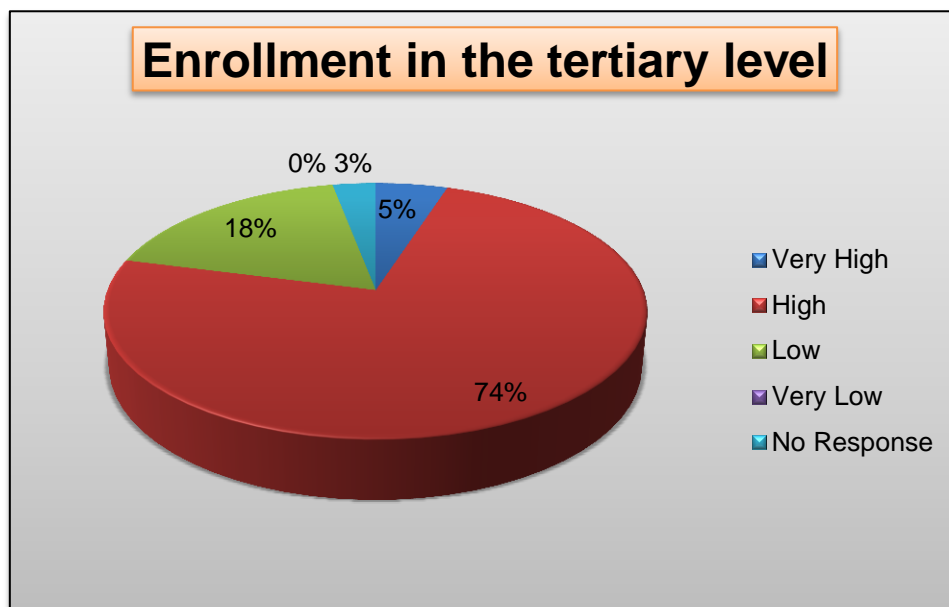
Source: Fieldwork (2016)

As shown in the figure, 79% of the respondents representing a vast majority of the respondents opined that enrolment at the second cycle level is high, 11% indicated that enrolment at this level is very high, 7% indicated that the enrolment is low with nobody indicating that it is very low. Secondary data obtained from Tarkwa Nsuaem

however reveals that for a population of 59,341 being between 0-24 years, there are 3 secondary schools with no vocational or technical school in the municipality. Critics have however argued that this form of challenges which is not different from other parts of Ghana can be explained as a legacy of colonial educational system.

On the enrolment at the tertiary level (which includes Universities, Polytechnics, teacher training Colleges, Nursing and Health Colleges). Figure 34 gives the distribution of the tertiary level enrolment rating by the respondents.

**Figure 34: Enrolment in the tertiary level**



Source: Fieldwork (2016)

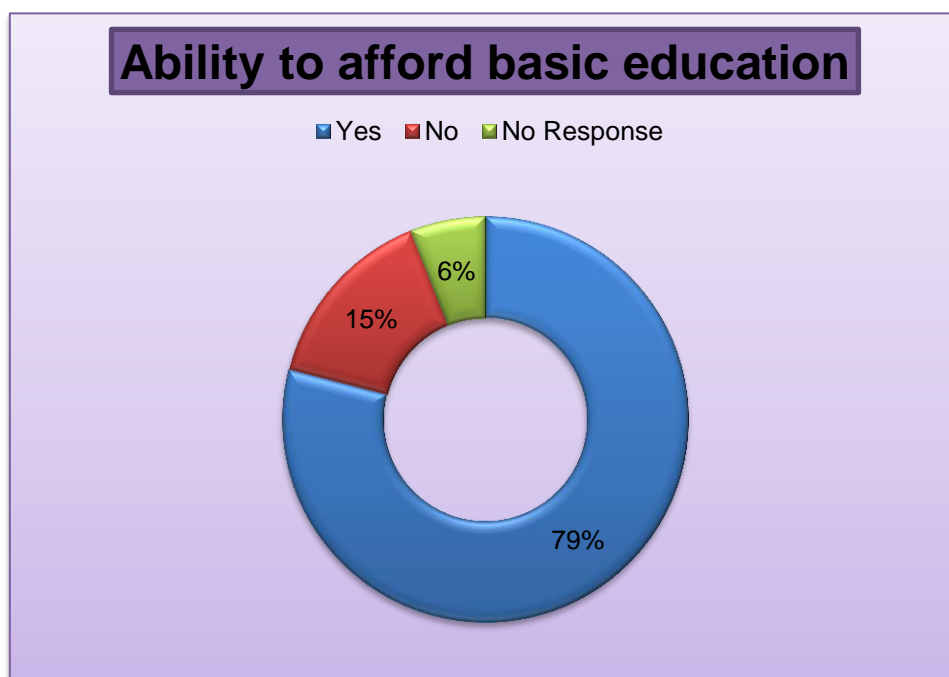
The figure shows that a vast majority of the respondents' constituting 74% stated that enrolment at the tertiary level is high, 5% indicated that enrolment at this level is very high, 18% indicated that it's low but nobody opined that it is very low. The western region can boast of few tertiary institutions since the nationally there are not many national institutions in relation to the population. However, unlike the basic and secondary education many students travel outside their towns and home regions to

access tertiary education especially in Accra, Kumasi and Cape Coast which have the nation's prestigious tertiary institutions. Furthermore, one other reason that could account for the high rate of tertiary education despite the very low number of institutions could be the introduction of the distance learning, sandwich (summer schools) and evening programs which helps to increase access at this level.

#### 4.3.2. Affordability of education in the Western Region

Affordability of education is a key determinant of development in the educational sector and other factors such as access and quality education are closely related to education. In order to ascertain whether the respondents are able to afford the cost of education, they were first asked to indicate their children of school going ages in their household. Figure 35 shows a distribution of their responses and indicates that 96 out of the 100 respondents responded to this question.

**Figure 35: Affordability of basic education**

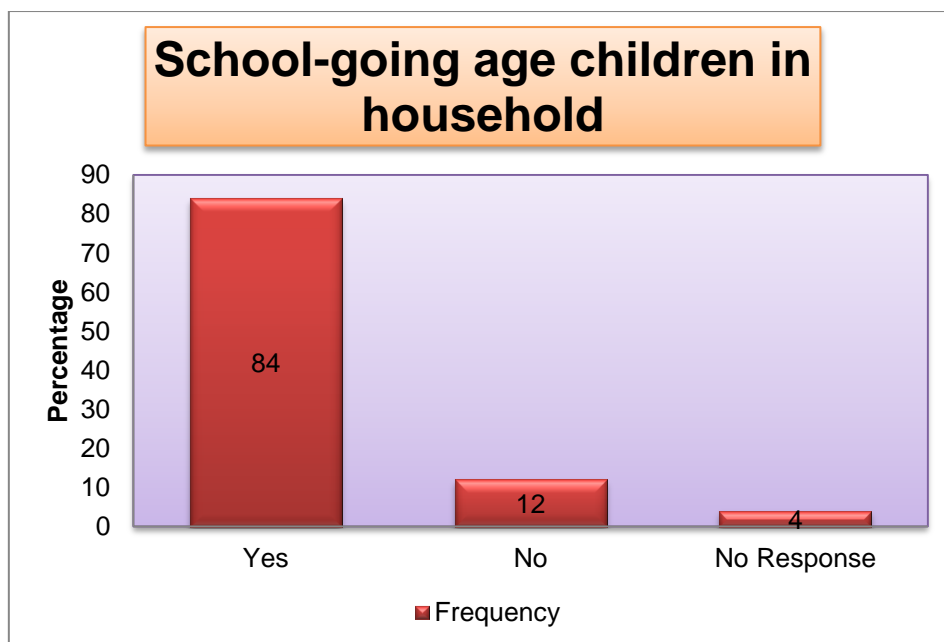


Source: Fieldwork (2016)

As shown in the figure 37 below, a vast majority of the respondents constituting 84% opined that they have children of school going age in their household whereas 12% responded in the negative. Affordable education at the basic level in Ghana generally has been boosted by the introduction of the Free Compulsory Basic Education (FCUBE) policy. This policy initiated by the Government of Ghana has not only made education at the basic level affordable but also compulsory. The school feeding programme, also introduced by the government which ensures that children at the basic level are fed in school has equally contributed to this responses.

Moreover, the respondents were also asked to indicate whether their children of school going age are in school. As shown in figure 36, 16 out of the 100 respondents did not respond to this question.

**Figure 36: Children of school going age**



Source: Fieldwork (2016)

The proportion of respondents who stated affirmatively constitutes 77% with 7% responding negatively that their children of school going age in their households are not in school.

Consequently, Table 10 shows the distribution of whether the respondents' children of school going age in their households are all in school. Out of the 100 respondents, 19 of them did not respond to this question.

**Table 9: Children of school going ages in households**

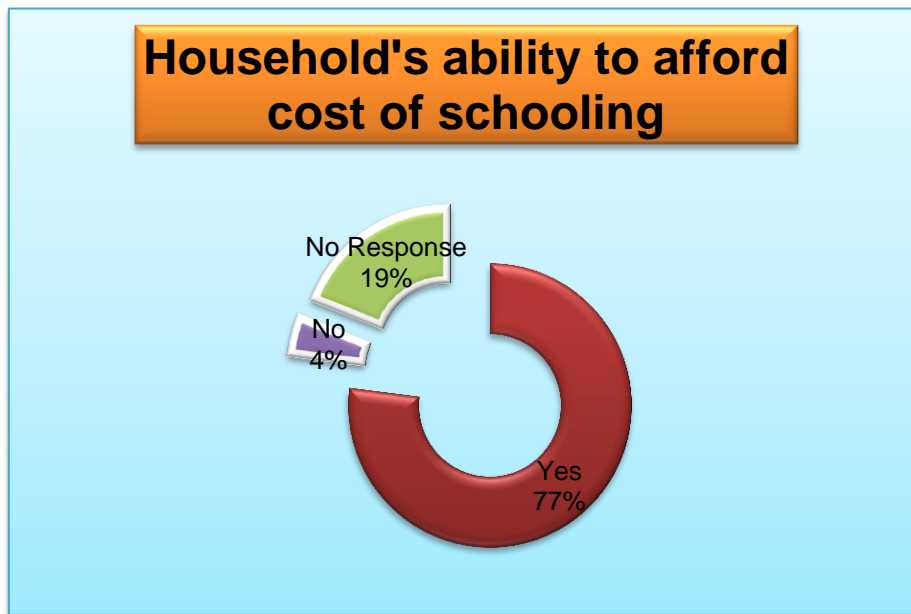
<b>Are all children of school-going age in school?</b>	<b>Frequency</b>	<b>Percent</b>
<b>Yes</b>	77	77%
<b>No</b>	7	7%
<b>No Response</b>	16	16%
<b>Total</b>	<b>100</b>	<b>100%</b>

Source: Fieldwork (2016)

The figure shows that majority constituting 77% of the heads of households indicated that they are able to afford the cost of school fees for the children of school going age in their household. A very small minority of 4% them however responded that they are not able to afford the cost of the school fees of the children.

Similarly, the heads of the households were also asked to indicate their opinion about whether they think other parents, who may be their friends, family members, church members, or even neighbours, are able to afford the cost of their ward's school fees. Figure 38 gives the distribution of their responses and indicates that 89 out of 100 of the respondents responded to this question.

**Figure 37: Ability to afford cost of schooling**



Source: Fieldwork (2016)

From their responses, a vast majority of them constituting 77% responded that other parents are able to afford the cost of their school fees whilst 14% of the respondents responded in the negative. When asked for their explanations to buttress their responses on how affordable they think school fees is, some of those who responded in the affirmative noted that, though the school fees of the children is very high, they nevertheless sacrifice to pay. Others also said most parents who are gainfully employed are able to afford very good schools for the children in their households. As a coping strategy, some of the respondents, among those who are able to afford the cost of the school fees, revealed that they secure loans to enable them pay for the fess. On the other hand, some of the respondents who responded in that they are not able to afford the cost of the school fees for their children indicated that the school fees is very expensive whereas others also explained that the cost of living is very high coupled with high unemployment in their communities. Secondary data from the district education office indicates that for example in Takwa

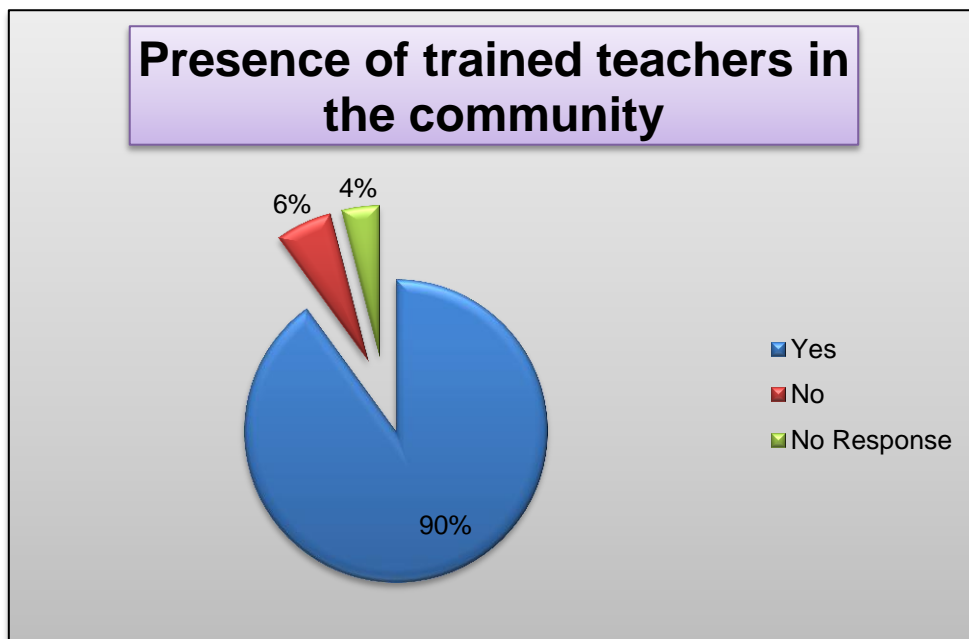
Nsuaem Municipality, for children between 0- 24 years old, out of 59,341 of them, 33,240 are in school. This means that about 26,101 children of school going age in that municipality alone are out of school from Kindergarten to Senior High School.

#### 4.3.3. Quality of education in the Western Region

The quality of education determines the calibre of students that will be produced and one of the relevant variables in education aside accessibility and affordability of education.

Accordingly, the study asked the respondents to indicate whether there are enough trained teachers in their communities. This is because these parents attend Parents Teacher Associations (PTA) meetings of their wards where these issues are discussed. Figure 38 shows the distribution of their responses. There were 96 out of the 100 respondents who indicated their responses to this question.

**Figure 38: Presence of trained teaches in the community**



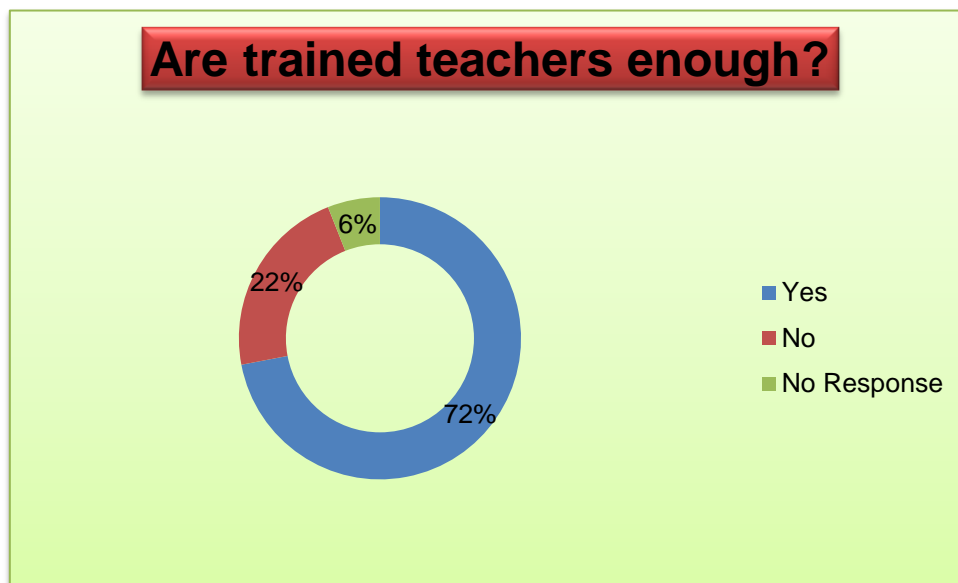
Source: Fieldwork (2016)



The figure shows that a vast majority constituting 90% of the respondents indicated that there are many trained teachers in the various schools in their communities. The remaining respondents constituting 6% responded in the negative. For example, secondary data obtained from district education office, Takwa Nsuaem shows that there are 885 trained teachers in the district for 194 public institutions whereas the private institutions have 86 trained teachers for 150 schools.

Similarly, figure 39 shows the proportion of the ratio of trained teachers to the number of children in the community. Out of the 100 respondents, 6 did not respond to this question.

**Figure 39: Teachers in the communities**



Source: Fieldwork (2016)

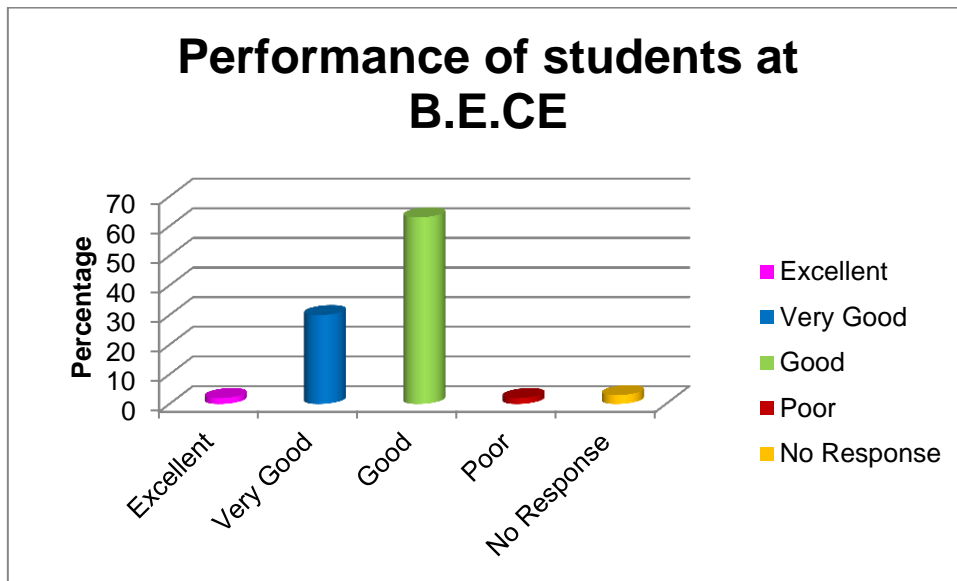
The figure 40 above shows that majority of the respondents constituting 72% indicated that there are many teachers in relation to the number of children in the various schools in their communities. Minority of the respondents who responded in the negative constitute 22%. In their explanations, some of those who responded in the negative said that most of the qualified teachers prefer to live in cities and refuse

postings to the rural parts of their communities. As a result, there were others who explained that the teacher pupil ratio in their communities is high. They also expressed that some of the schools in the mining communities still lack trained teachers. Secondary data collected from the Tarkwa Nsuaem Municipality shows that there are 53,310 students at the basic level with corresponding 971 trained teachers. The ratio is therefore 1 trained teacher is to 55 students. This is more than twice the national average of 1 trained teacher is to 25 students.

The performance of students at the Basic Education Certificate Examination (BECE) and the Senior High School Certificate Examination (SHSCE) are also important indicators to measure the quality of education in the Western Region and Ghana as a whole.

In view of this, the respondents were asked to rate the general performance of students in the BECE. The study categorized the rating into excellent, very good, good, poor and very poor. Figure 40 shows the distribution of their ratings and shows that 97 out of the 100 respondents responded to this question.

**Figure 40: Performance of students at B. E.C.E**

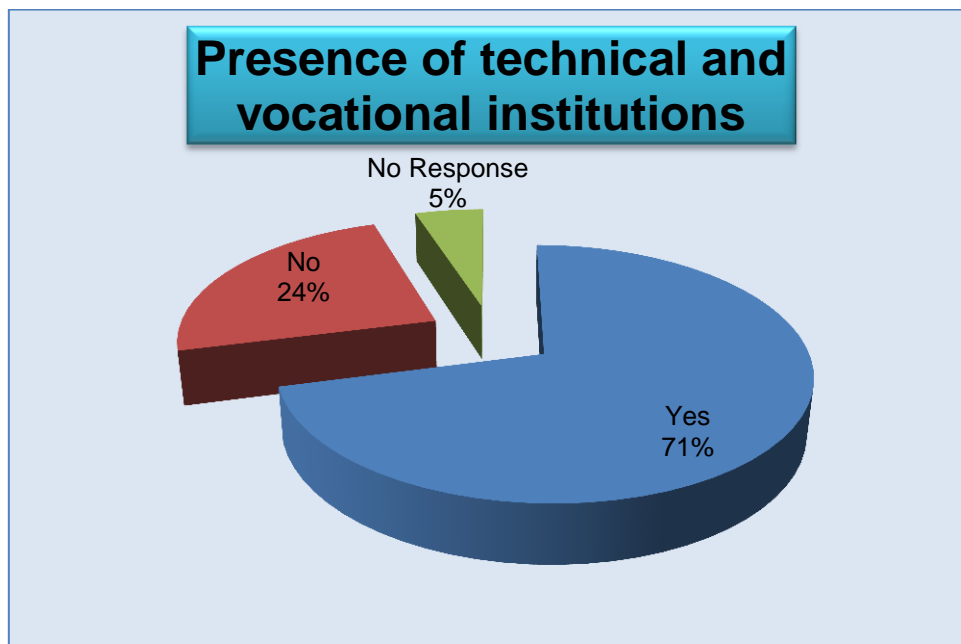


Source: Fieldwork (2016)

From the responses, majority of the respondents constituting 63% indicated that the performance of the pupils have been good, 30% indicated that performances have been very good, 2% rated that the performance has been excellent. The proportion of respondents who rated that the performances of the pupils have been poor constitutes 2% with nobody indicating that the performance has been very poor. According to secondary data from the Takwa Nsuaem Municipal education office for example, out of 27, 55 pupils who sat for the Basic Education Certificate Education (B.E.C.E), 2314 representing 84% passed. Similarly, at the West African Senior School Certificate Examination (WASSCE), out of the 901 students who sat for the examination, 897 representing 99.5% passed. This means that performance at the basic and second cycle level is very high compared with other parts of Ghana.

Furthermore, quality education does not exclude technical and vocational education. As a result of this, the respondents were asked whether there are vocational and technical institutions in their area.

**Figure 41: Presence of technical and vocational institution in the community**

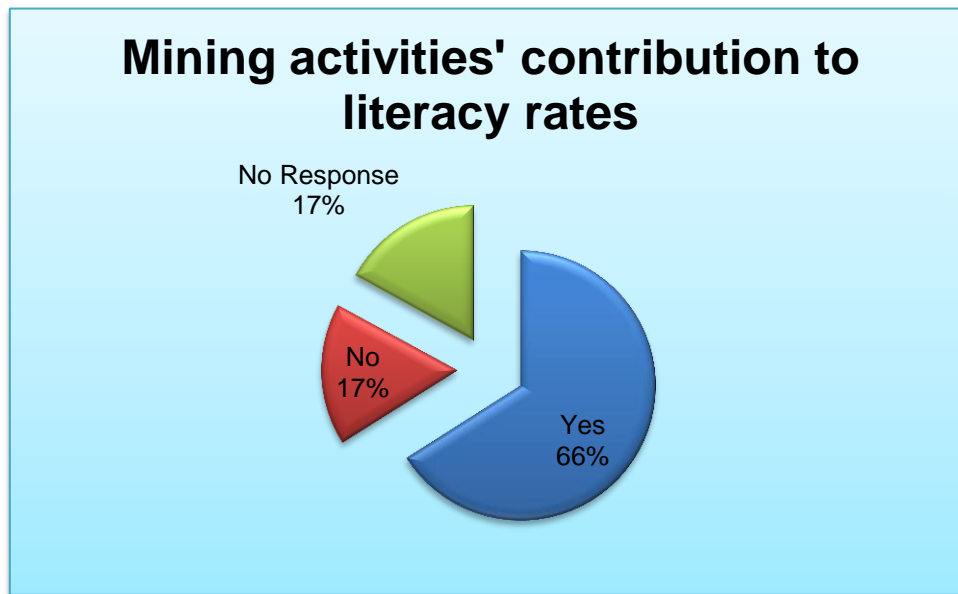


Source: Fieldwork (2016)

Figure 42 shows the distribution of their responses and shows that majority of the heads of the households constituting 71% indicated that there are technical and vocational institutions as well as training centres in their communities. Minority of the respondents constituting 24% indicated that there are no such institutions in their communities.

Ideally, revenues from mining should contribute to education in general. As a result, the study wanted to find out if mining has contributed to literacy in the Western Region. Literacy has to do with the ability to read and write. Figure 42 shows the proportion of the respondents' responses on whether mining has contributed to literacy in the region.

**Figure 42: Contribution of mining to literacy rates**



Source: Fieldwork (2016)

As shown in figure 43, out of the 100 responses, 17 of them did not respond to this question. From their responses, majority of the respondents constituting 66% indicated that mining has contributed to the literacy rate in the Western Region. The proportion of respondents who expressed that the mining sector has not contributed to the literacy rate in their communities constitutes 17%. In explaining their reasons, some of those who expressed that the mining sector mining has contributed to the literacy rate said that the mining companies have contributed by constructing schools in the communities. Some further explained that some mining companies operating the region have introduced scholarship schemes for brilliant but needy students in the community. On the contrary, some of those who expressed that the mining sector has not contributed to literacy rate in the community also explained in the reasons that follow. Firstly, majority said that many of the youth in the community drop out of school to engage in small scale mining (mainly illegal). Secondly, some bemoaned the inadequate school infrastructures, facilities and other teaching and

learning materials in the various schools in their communities, and added that the general support that the schools use to get from the mining companies has drastically dwindled. Thirdly, others were of the opinion that the mining companies do not have literacy programmes for the communities.

#### **4.4. MEDICAL CARE IN THE WESTERN REGION**

Medical care and the general health of a people is one of the most crucial determinants of human development of any society. As a result, development that is people- centred must also concern itself with factors such as accessible, affordable and quality health care.

These various factors correlate with vital health statistical indicators such as life expectancy rate, maternal mortality rate, infant mortality rate and the general health of a population.

In Ghana, however, the introduction of the National Health Insurance scheme (NHIS) in 2003 marked a major turning point in health care delivery in the country especially in terms of access and affordability of basic health care delivery. That notwithstanding, health care delivery still remains a major challenge in many parts of the country. It is in view of this that the study sought to find out the state of health care delivery in the Western mineral wealth region of Ghana to ascertain whether mineral revenues are being invested in the health sector of the region.

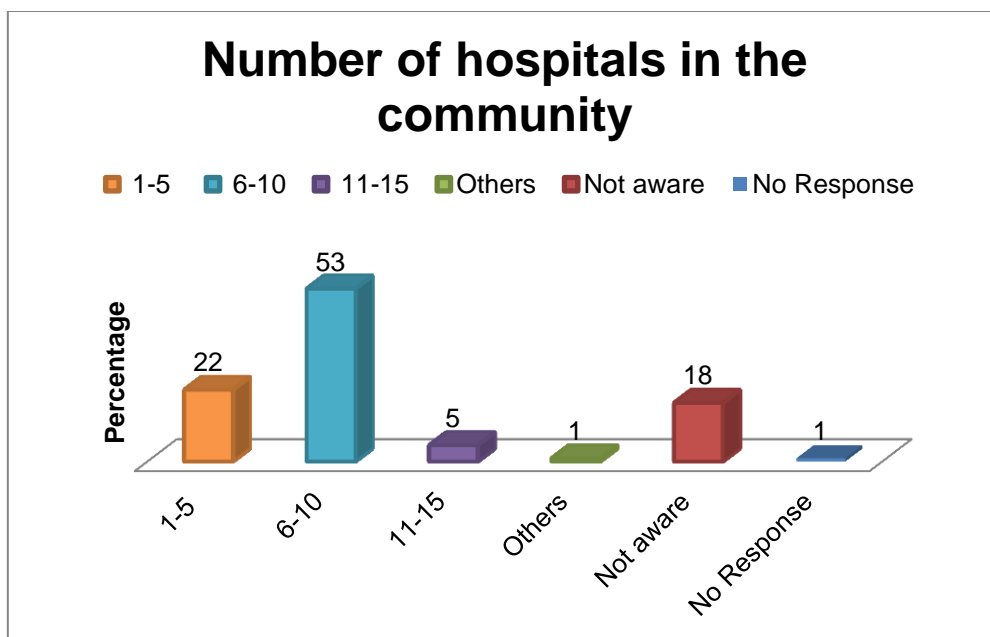
##### **4.4.1. Access to medical care in the Western Region**

One major reform that has taken place in Ghana's health sector has been the introduction of the National Health Insurance Scheme. It was introduced by the government of Ghana to address the problem of financial barrier to health care

posed by the then 'cash and carry system' of healthcare which required out-of-pocket payment for health care at the point of health service delivery.

In trying to investigate the accessible nature of health care in the Western region, the study asked the respondents to indicate the number of hospitals in their communities.

**Figure 43: Number of hospitals in the community**



Source: Fieldwork (2016)

Figure 43 shows the distribution of the number of hospitals in their communities. From the figure, 99 out of the 100 respondents responded to this question. The number of hospitals were categorized in the range of 1-5, 6-10, 11-15, others and unaware. The figure indicates that a narrow majority of the respondents constituting 53% stated that the numbers of hospitals in their communities are between 6-10 hospitals, 22% of the respondents indicated 1-5 hospitals, 5% indicated 11-15 hospitals, 1% of the respondents indicated others number of hospitals not captured in the options and 18% indicated that they are not aware of the number of hospitals

in their communities. The responses clearly indicate that there are a number of both public and private health facilities in the Western region. Table 11 below shows the number of health facilities in the Tarkwa Nsuaem Municipality with a population of 90,477 (GSS, 2013).

**Table 10: Health facilities in Takwa Nsuaem Municipality**

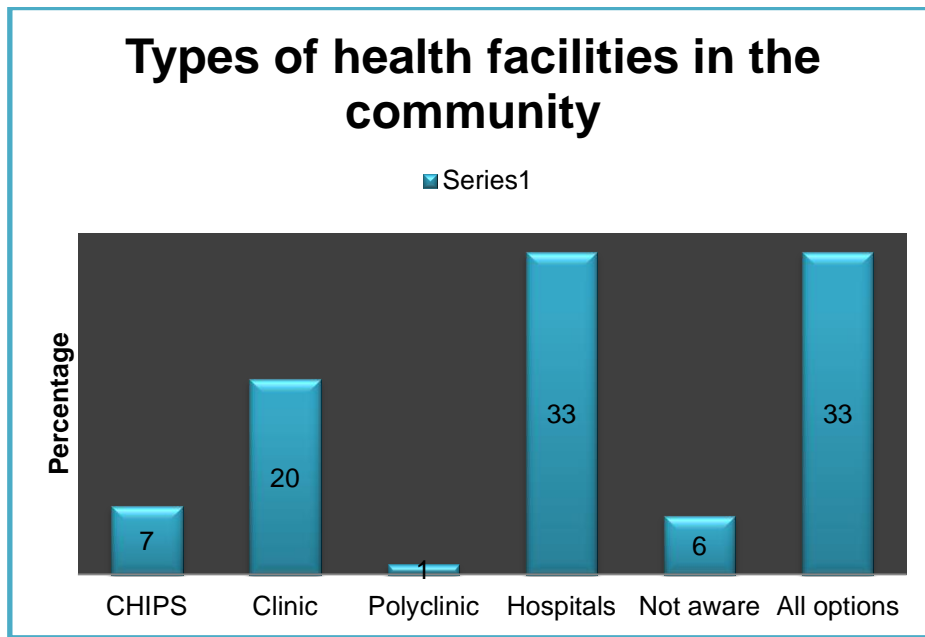
<b>Health facilities</b>	<b>Public</b>	<b>Private</b>	<b>Total</b>
Hospitals	2	5	7
Health centres	5	0	5
Clinics	3	8	11
Reproductive and Child Health (RCH) centres	2	0	2
Maternity Homes	0	2	2
Community – based Health Planning and Services (CHPS)	14	0	14
<b>Total</b>	<b>26</b>	<b>15</b>	<b>41</b>

Source: Field data Municipal Health Directorate, Tawka Nsuaem, 2016

Moreover, the heads of households were asked to indicate the different types of health facilities in their communities. Figure 44 shows the distribution of the different types of health facilities in the various communities in the Western region. From the figure, the types of health facilities in Ghana are , Community –Based Health Planning Services (CHIPS), clinics, polyclinics, hospitals and those who are ‘not aware’. Table 11 above indicates that Takwa Nsuaem municipality has for example has all the different types of health facilities in the country.



**Figure 44: Types of hospitals in the community**

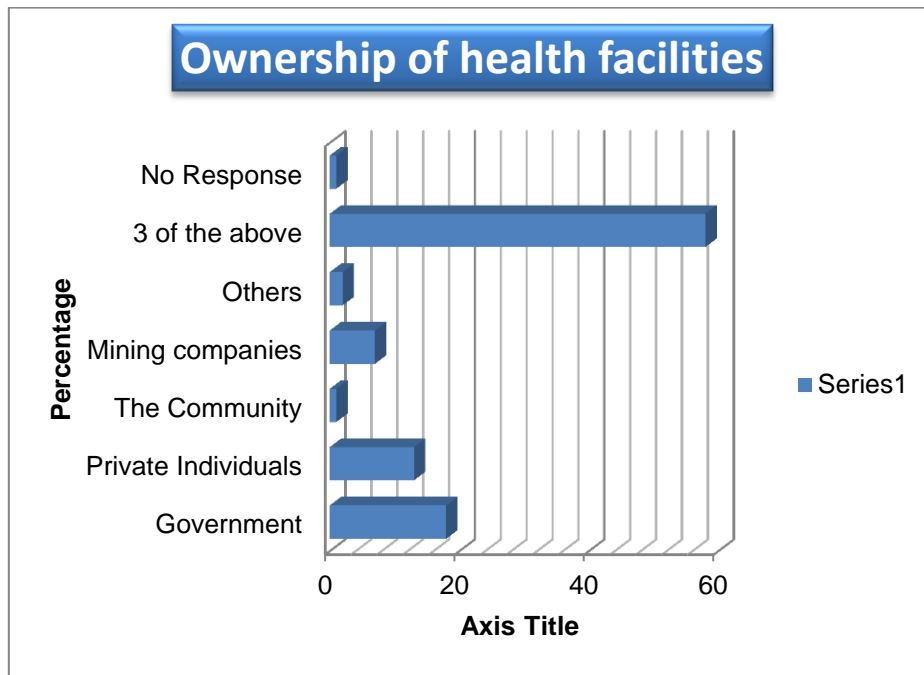


Source: Fieldwork (2016)

Figure 45 above indicated that 33% of the respondents indicated that they have all the different types of health facilities in their communities. Whereas 20% of the respondents indicated clinics only, 7% indicated Community-Based Health Planning Services (CHIPS) only, 33% of the respondents indicated hospitals only, 1% indicated polyclinics only and 6% of the respondents indicated that they are not aware of the types of health facilities in their communities.

On the subject of ownership of the health facilities, who are also the service providers, the respondents were asked to indicate the owners and financiers of the various health facilities. Figure 45 shows the distribution of the various categories of ownership, namely, government, private individuals, the community and mining companies.

**Figure 45: Owners of health facilities**



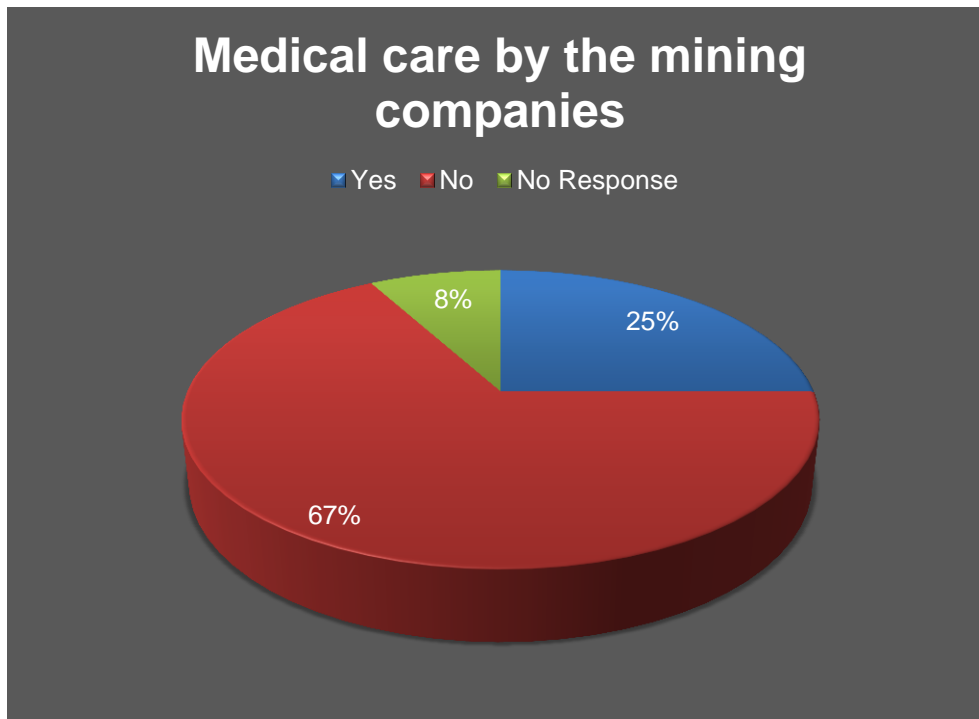
Source: Fieldwork (2016)

As shown in figure 46, a narrow majority of the respondents representing 58% indicated that all the various forms of ownership are found in their communities, with 18% of the respondents indicating government, 13% of the respondents indicated private individuals, 1% of the respondents indicated the community and 7% indicated the mining companies. The number of respondents who responded to other ownership forms that were not captured by the options given constitutes 2%. Table 11 above confirms the field data and shows that there are two main types of ownership in the Takwa Nsuaem municipality, public and private ownership. The public ownership is mainly by the government of Ghana whereas the private ownership has either private individuals, mining companies and faith based organizations.

In addition to this, the study wanted to find out if the mining companies operating in the Western region have instituted a health insurance scheme for the people in the

communities they are operating. Figure 46 shows the distribution of the responses of the health of the households and shows that out of the 100 respondents 92 of them responded to this question.

**Figure 46: Medical care by the mining companies**



Source: Fieldwork (2016)

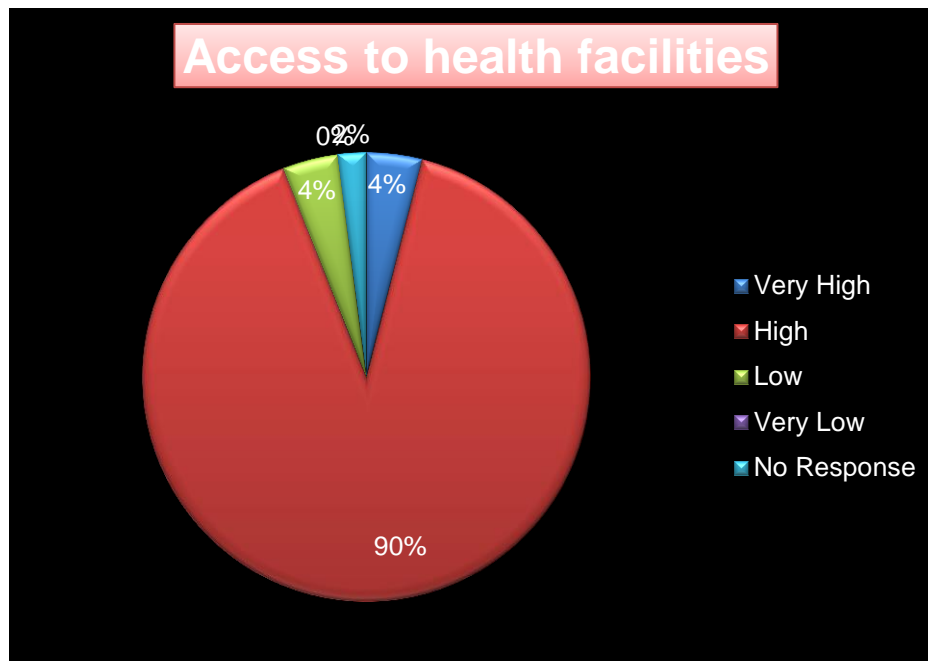
Figure 47 above shows that 67% of the respondents responded that there is no such health insurance scheme in the western region apart from the National Health Insurance Scheme introduced by the state.

The proportion of responses who indicated in the affirmative constitutes 25%. In explaining their stance, some of those who responded in the affirmative indicated that most of the mining companies have their own insurance policies for their workers but not for the entire community.

Again, the respondents were asked to rate the overall access to health facilities in their communities and the Western region as a whole. Figure 47 shows the

distribution of the responses of the heads of households on the overall access to health facilities and shows that 98 out of the 100 respondents responded to this question.

**Figure 47: Access to health facilities**



Source: Fieldwork (2016)

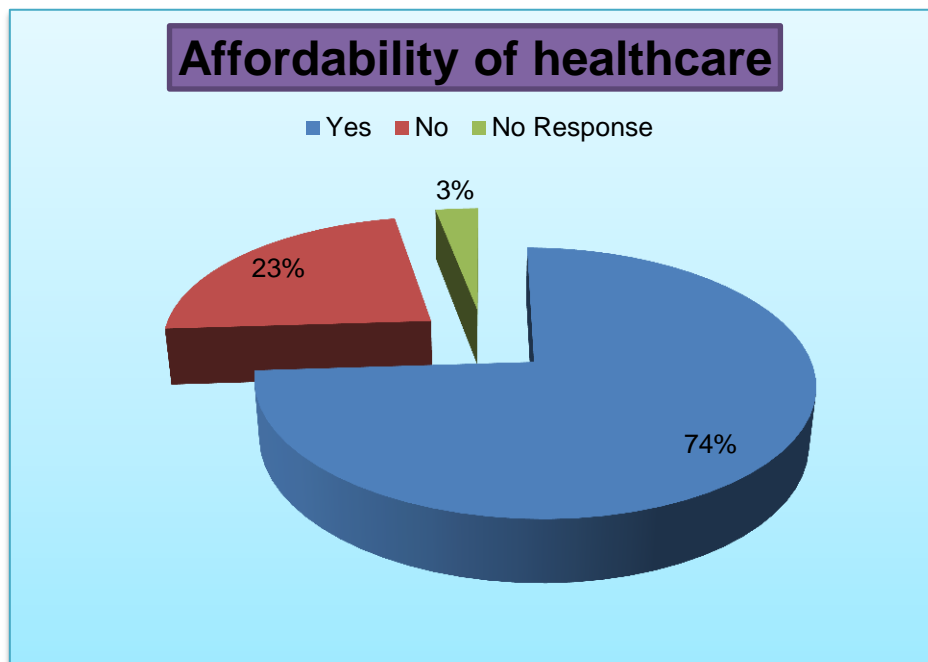
From figure 48, the rating was on the range of very high, high, low, and very low. Vast majority of the respondents constituting 90% indicated that people's access to health facilities and health care is high. Those who indicated that it is very high constitutes 4% and 2% of the respondents indicated that it is low. In explaining their points, those who responded in the affirmative noted that, firstly, there were several health centres in their communities, hence the high access to health care. Secondly, the introduction of the National Health Insurance Scheme (NHIS) which is also accepted by most of the health centres and facilities, both private and public has

equally increased the accessibility of health care in the Western region. On the contrary however, some of the respondents who responded in the negative explained that the health facilities in their communities are inadequate.

#### 4.4.2. Affordable medical care

Affordable healthcare was one of the main reasons for the introduction of the National Insurance Scheme (NHIS). Prior to the introduction of the scheme, the general cost of healthcare was expensive especially for the average Ghanaian. The respondents of the study were asked to indicate whether the cost of health care is affordable. Figure 49 shows the distribution of the respondents' responses on whether the cost of health care is affordable and shows that out of the 100 responses, 97 of them responded to this question.

**Figure 48: Affordable healthcare**



Source: Fieldwork (2016)

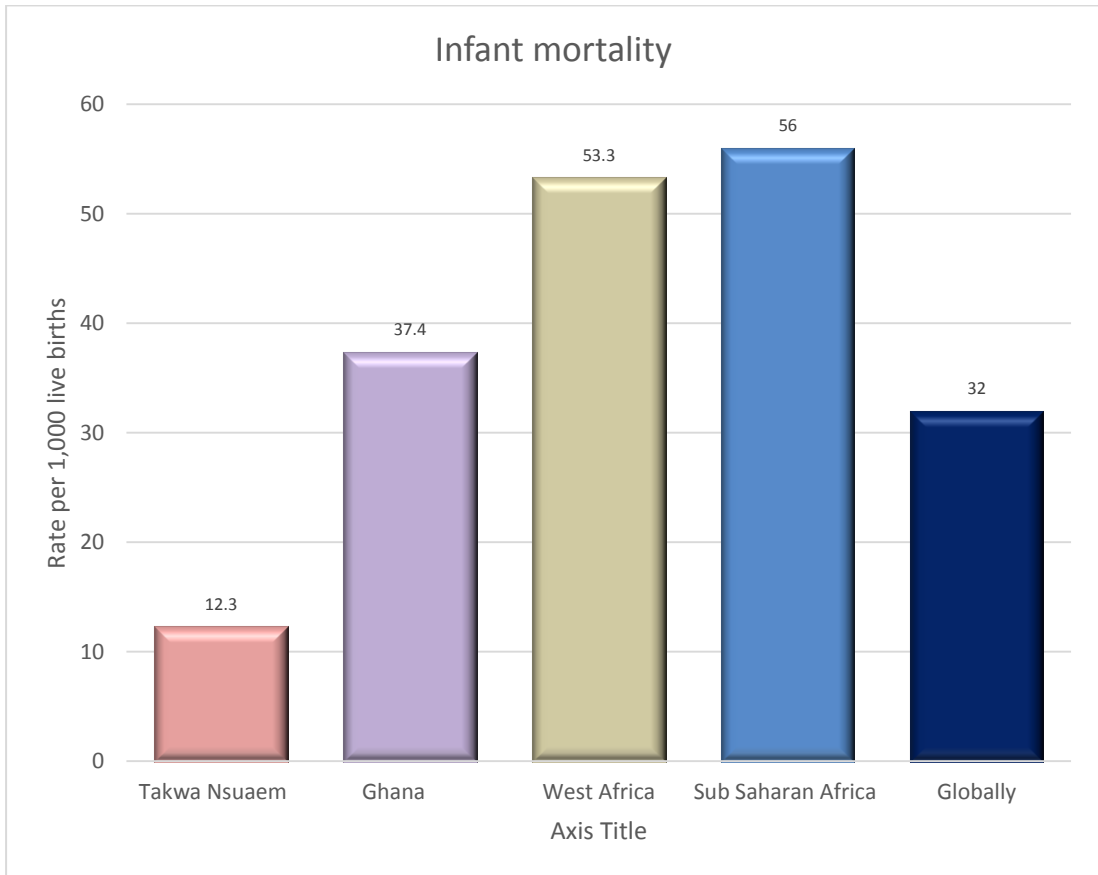
From figure 49, majority of the respondents constituting 74% indicated that they are able to afford the cost of health care in their communities. The proportion of

respondents who are not able to afford the cost of health care for themselves and other members of the household constituted 23%. In explaining their points, those who responded in the affirmative noted that, firstly, they utilize the National Health Insurance Scheme (NHIS) and that it is expensive to pay for health care without NHIS, and as a result most of them access this insurance scheme. On the contrary, those who responded negatively explained that they are unable to afford the cost of health care because the NHIS is not working effectively and that it does not cover all the ailments. This according to them is gradually ushering them back to the days of the 'cash and carry' era, the system where a patient has to pay in cash before he/she can access healthcare in the various health facilities.

#### **4.4.3. Quality of healthcare in the Western region**

Quality healthcare is essential for the health needs of every society and should therefore be given the needed attention it so deserves. The respondents were asked questions with the view to measuring the quality of health care in the Western region. The respondents were asked to rate mortality rate among children below five years in their communities. Figure 50 shows the distribution of the respondents' perspective of the mortality rate of children below five years. The respondents were to rate their responses on the categorized of very high, high, low and very low. Out of the 100 respondents, 98 of them responded to this question.

**Figure 49: Infant mortality rate**



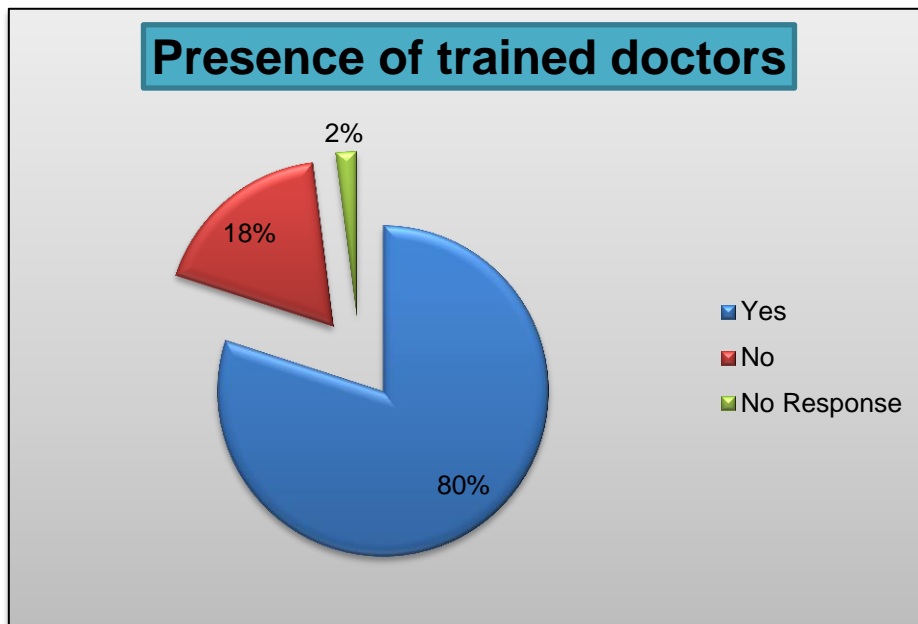
Source: Fieldwork (2016)

Figure 50 shows the 2014 average distribution of infant mortality rate in Takwa Nsuaem (one of the Municipalities selected for the study), Ghana, the West African sub- region, Sub- Saharan Africa and the Globally. From the figure, Takwa Nsuaem recorded the lowest rate of 12.3. This rate is lower than Ghana’s national infant mortality rate of 41 recorded between 2010 -2014 (GSS, 2015), the West African rate of 53.3 and the global rate of 32.

Furthermore, the respondents were asked to indicate whether there are enough trained Doctors and Nurses in the various health facilities available in their

communities. Figure 50 gives a proportion of their responses and indicate that out of the 100 respondents, 97 of them responded to this question.

**Figure 50: Presence of trained doctors in the community**



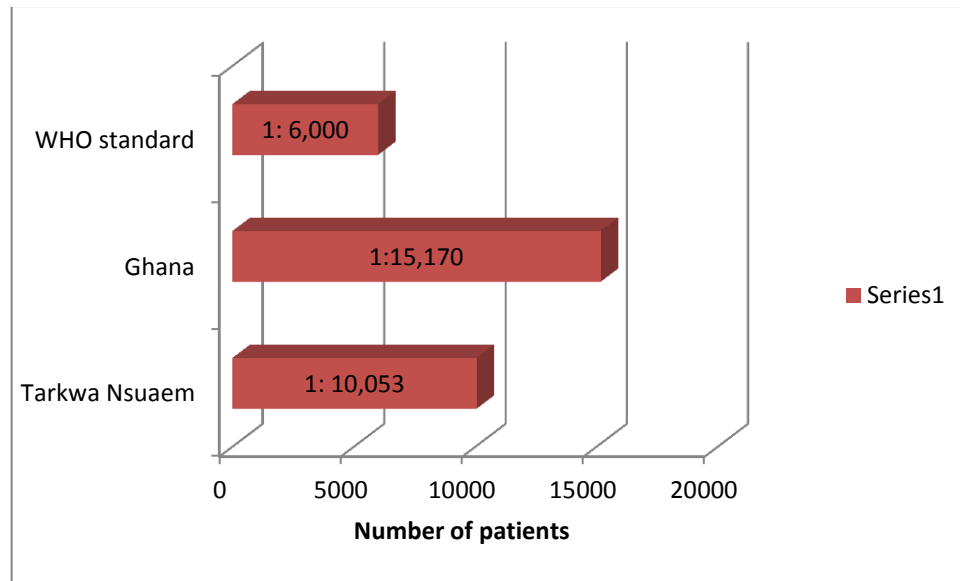
Source: Fieldwork (2016)

From the figure 51, a high majority of 80% were of the opinion that there are enough trained Doctors and Nurses in their communities with 18% disagreeing.

Besides, the respondents were asked to indicate whether the trained Doctors and nurses were adequate in the various health facilities. Figure 51 above shows the proportion of their responses and indicate that out of the 100 respondents, 98 responded to this question. The proportion of respondents who responded in the affirmative is 69% with 29% of the respondents responding in the negative.



**Figure 51: Ratio of doctors to health facilities**

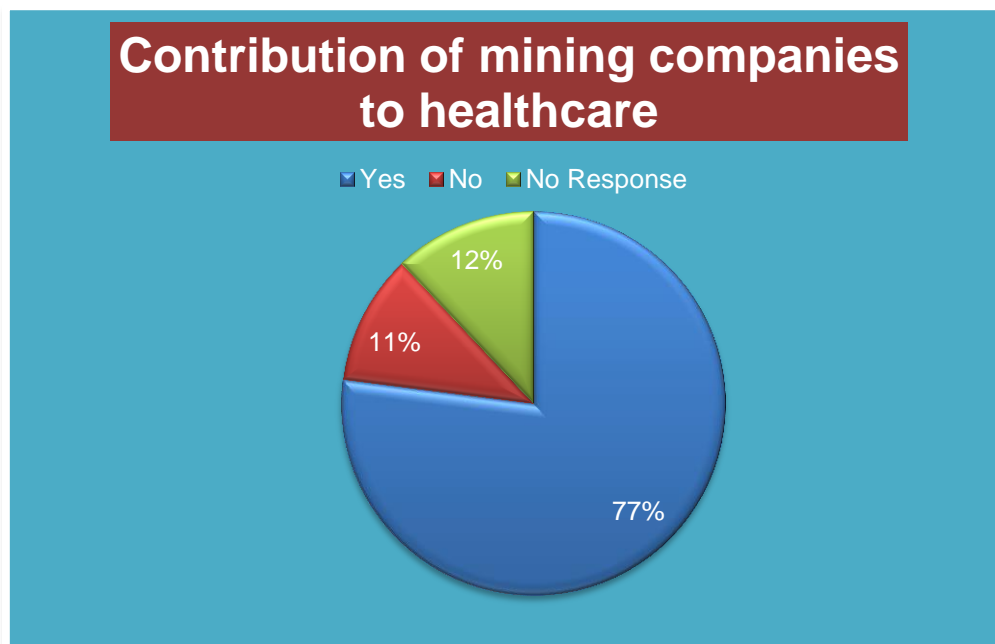


Source: Fieldwork (2016)

To buttress their points, those who responded in the affirmative explained that firstly, there are enough trained doctors and nurses in their communities whilst others added further that though there are trained doctors and nurses, they are not enough. Those who disagreed with the question explained that the doctor- nurse to patient ratio is very high because most of the doctors especially refuse postings to the remote parts of their communities. Secondary data from the district health directorate of Takwa Nsuaem indicates that with a population of 90,477 (GSS, 2013) and 41 different health facilities (shown in Table 16), there are 9 doctors and 359 nurses in all categories. Consequently, the doctor-patient ratio in the second biggest municipality Takwa Nsuaem, selected for this study is 1:10,053, which is lower than Ghana's doctor to patient ratio of 1: 15,170 but higher than the World Health Organization (WHO) which is 1: 6,000. The nurse to patient ratio in the municipality is 1:252, which is rather an improvement on the nation nurse to patient ratio average of 1:24,533 (GSS, 2015).

In trying to investigate the role of the mining companies in the health sector of the Western region, the respondents were asked if the mining companies are contributing to improved health care in their communities. Figure 52 gives a proportion of their responses and shows that 88 responded to this question, out of the 100. The figure indicates that 77% of the respondents were of the opinion that the mining companies are contributing to health care in the communities such as donation of health equipment to the health facilities and helping to expand health facilities. The remaining respondents constituting 11% responded negatively.

**Figure 52: Contribution of mining companies to healthcare**



Source: Fieldwork (2016)

Those who responded in the affirmative explained that firstly, some of the mining companies have constructed hospitals which are opened to the general public. Secondly, some of the mining companies have also provided health facilities and infrastructure to the community. Thirdly, some further added that the mining companies have inadequate health facilities to cater for the health needs of their

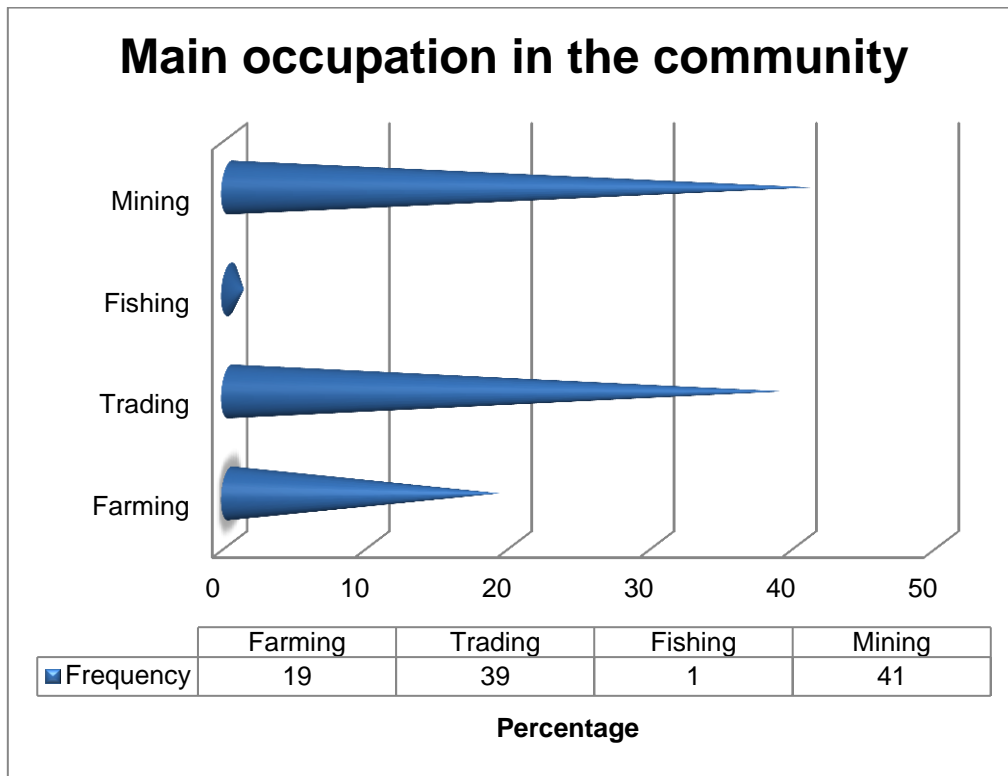
workers, or sometimes pay the health expenses for their workers. Nevertheless, whilst the field data confirms that mining companies contributes to healthcare, the International Council on Metals (2015) reports in a study on mining in Ghana that 66% of the respondents identified one of the negative effects of mining as health problems. This means that the contribution of mining to healthcare can both be positive and negative.

#### **4.5. OPPORTUNITIES FOR JOBS AND SKILLED LABOUR FORCE**

Ordinarily, mining activities should create jobs for people in the communities in which it is done. Nevertheless, mining is a capital intensive sector and therefore cannot create more direct human jobs for people, but rather, its existence, operations and revenues can create indirect job opportunities. As a result of this, the study has as part of its objectives to investigate how mining can create sustainable jobs to improve the livelihoods of the people in the Western region. In order to achieve this objective, the study first asked the respondents to indicate the main occupation of the people in the Western region.

Figure 53 shows the distribution of the various occupations of the respondents and shows that, that the main occupations in the community are categorized into farming, trading, fishing and mining.

**Figure 53: Main occupations of the people in the community**

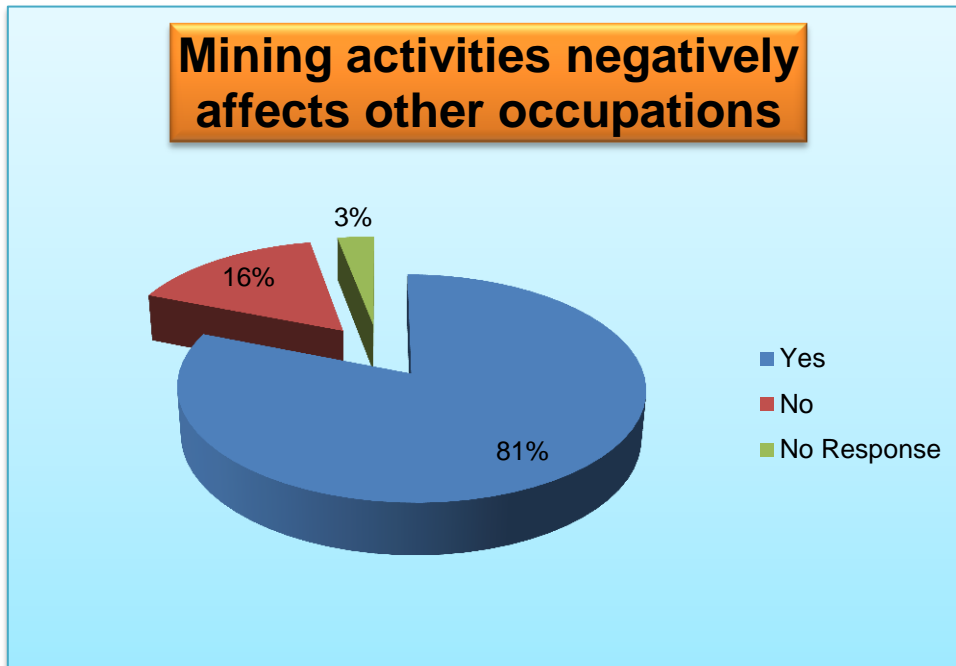


Source: Fieldwork (2016)

Figure 54 above shows that 41% of the respondents indicated that their main occupation is mining, 39% said trading, 19% said farming, 1% said fishing.

Similarly, this discussion is useful in the context of Africa’s lack of diversified economies. As a result, the respondents were asked to indicate whether they agree that the mining sector in the community has attracted more of people’s attention and investment to the detriment of other occupations in the community. Figure 54 shows the distribution of their responses in this regard and indicate that 97 out of the 100 respondents responded to this question.

**Figure 54: Effects of mining on other occupations**



Source: Fieldwork (2016)

Figure 55 indicates that 81% constituting a vast majority of the respondents agreed to the assertion that the mining sector has created a mono- economy at the communities where they are mined. The remaining 16% representing minority of the respondents disagreed with the assertion. Those who responded in the affirmative explained that mining has taken over their farmlands. This according to them is negatively affecting the agricultural sector in their communities. Other respondents further added that the mining activities have polluted their farmlands, making agriculture in towns and communities very close to the mining operations sites virtually impossible.

This findings contradict a response from the official of the Ghana Chamber of Mines who responded to the question of whether they agree that mining has clouded other sectors such as agriculture in especially mining communities;

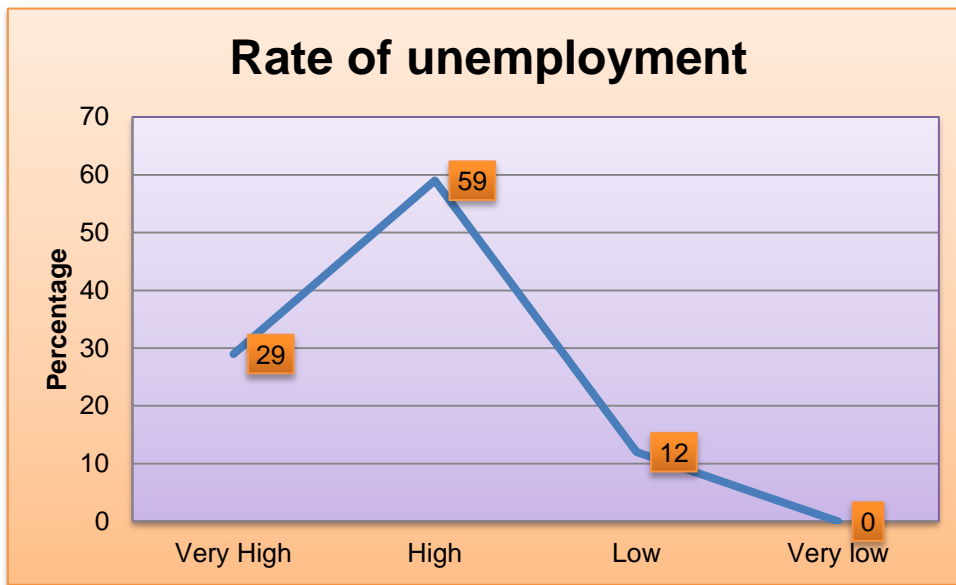
*“Not necessarily. The issue of job sustainability is very critical. The critical question is, how we can channel mining resources into other sectors such as such as manufacturing and agriculture to create sustainable jobs. In view of this, every mining company has introduced the ‘alternative livelihood program’ eg. in Takwa Goldfields is into oil palm plantation”*

(Interview with the Public Relations Officer of the Ghana Chamber of Mines, 10<sup>th</sup> July, 2016)

Again, some further explained that ‘everyone’ wants to work in the mines to the extent that most of the youth who are not employed in the mining companies are into illegal mining locally known as ‘*galamsey*’. On the contrary, those who responded negatively to the assertion explained that the trading sector in particular has seen a boost, since some of the people employed in the mining sector spend part of their income in the community and thus has led to the creation of jobs in this area for many of the local people.

Equally important is the issue of unemployment. As such, the respondents were asked to rate the unemployment situation in their communities. Figure 56 shows the proportion of their responses.

**Figure 55: Rate of unemployment**

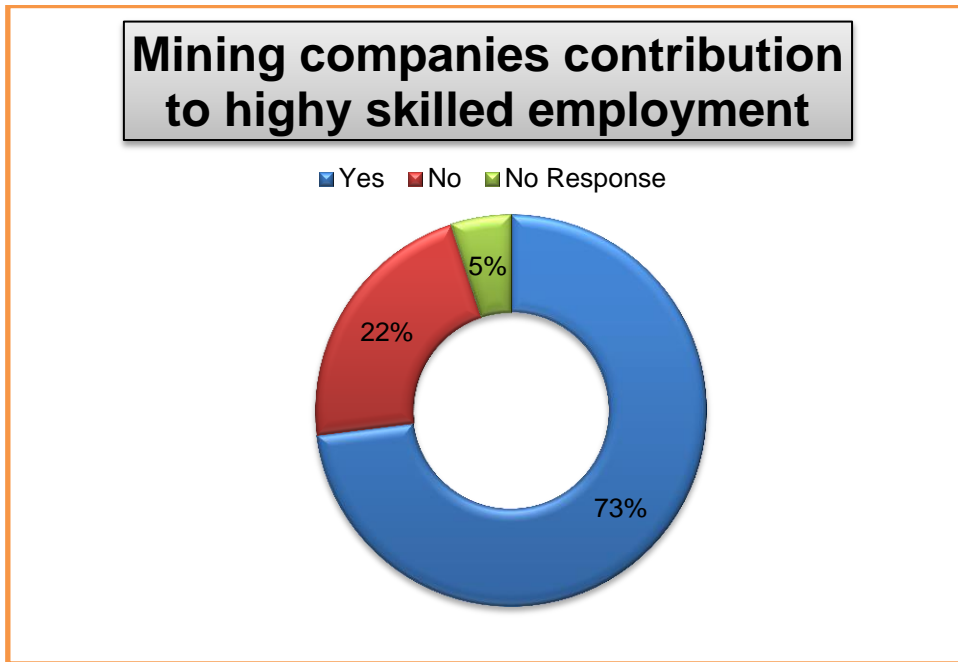


Source: Fieldwork (2016)

From figure 56, the respondents were asked to rate unemployment on the scale of very high, high, low and very low. The distribution shows that 59% of the respondents rated unemployment as high, 29% as very high and 12% as low. None of the respondents rated unemployment as very low in their communities. This means that overwhelming 88% of the heads of the households rated unemployment as either high or very high.

Besides unemployment, the categories of available jobs were also of essence to the study. Resultantly, the respondents were asked to indicate whether mining in the community has contributed to the employment of some community members into highly skilled jobs in the mining companies. Figure 56 shows the distribution of their responses and indicates that 95 out of the 100 respondents responded to this question.

**Figure 56: Creation of highly skilled jobs in the mining sector**



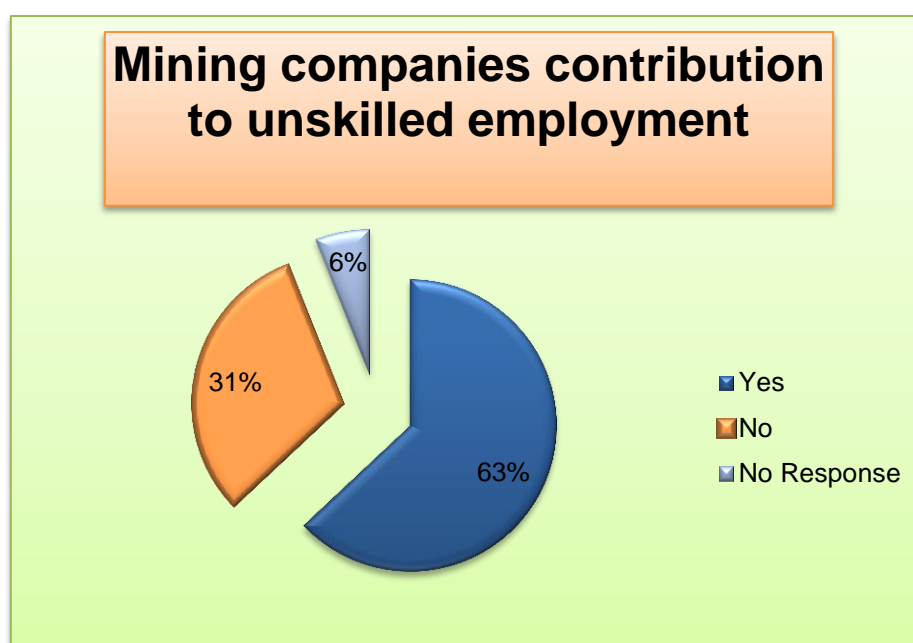
Source: Fieldwork (2016)

Figure 57 shows that 73% constituting majority of the respondents indicated that mining has contributed to highly skilled jobs in the community whilst 22% indicated in the negative. To buttress their positions, those who responded in the affirmative said that only members in the communities with skilled manpower are employed. Others also explained that only few of such the educated and skilled people are employed and that even currently, the mining companies are embarking on a retrenchment exercise. There was also the explanation that sometimes the unskilled people are employed and trained whereas for others, the mining companies apply a local content policy. Some also added that employment was based on skills specialization. On the contrary, those who responded negatively also explained that they didn't see the importance of mining because most of the youth in their communities and the Western region as a whole are unemployed.



Similarly, the respondents were asked to indicate whether mining in their communities have contributed to the employment of unskilled labour intensive jobs in and outside the mining companies. Figure 57 shows the proportion of their responses and indicates that 94 out of the 100 respondents responded to this question. The figure indicates that 63% representing majority of the respondents stated that mining has contributed to the employment of unskilled labour intensive jobs in their communities. Minority of the respondents constituting 31% responded in the negative.

**Figure 57: Creation of highly skilled jobs in the mining sector**



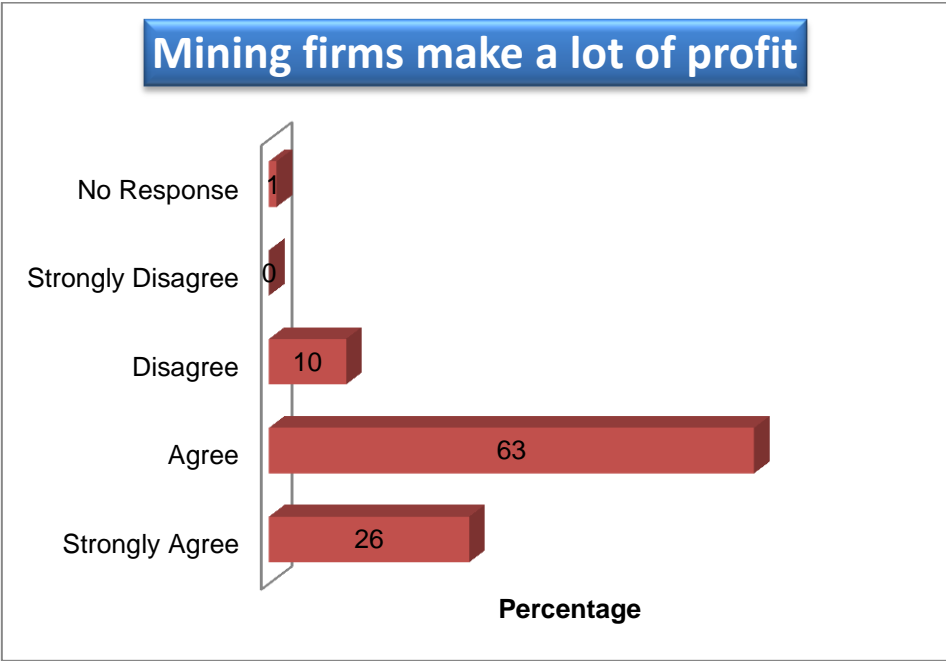
Source: Fieldwork (2016)

In explaining their points, those who responded in the affirmative said that the only few unskilled people are employed mainly sub-contracted mining jobs. Even with the few job opportunities, they sometimes have to pay bribes before they are employed. Others also added that some of the unskilled are also employed in both small scaled

legal mining and the small scaled illegal mining. On the contrary, those who responded negatively also explained that not of the youth in the communities are unskilled and so do not get jobs in the mining sector. Whilst others further explained that there are no many unskilled jobs unless one pays bribe.

Equally important to study is the theory of the structural dependency theory which explains that the extraction of raw materials by Western countries in their former colonies are detrimental to the development of the local people in these countries (Gunder Frank, 1967). As a result, the study asked the respondents to rate the extent to which they feel that the mining companies in their communities make a lot of profit while the community remains poor. Figure 58 shows the proportion of the ratings and indicates that 99 out of the 100 respondents responded to this question. From the figure, the range for that rating are strongly agree, agree, disagree and strongly disagree. The responses show that 63% rated that they agree with the assertion whilst 26 % rated that they strongly agree. A small minority of the respondents representing 10% indicated that they disagree with the assertion. This therefore means that a vast majority of 89% of the respondents either agree or strongly agree that the mining companies in their in communities make a lot of profit while the local communities remain poor.

**Figure 58: Profit margins between mining companies and mining communities**

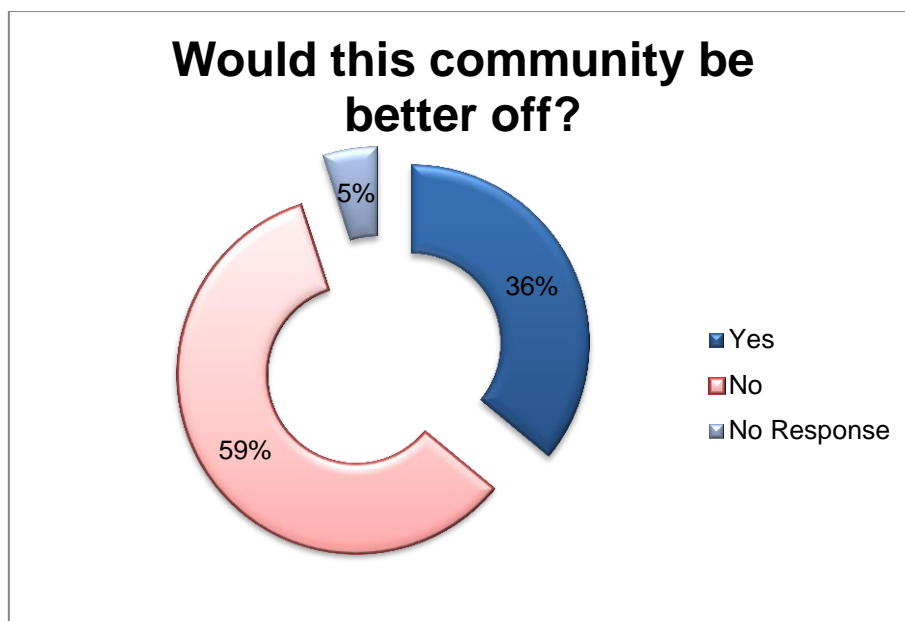


Source: Fieldwork (2016)

To explain their stance, those who responded in the affirmative said that the mining companies are siphoning the resources from the communities without any benefit to the communities. Others added that the community people are still poor because there are no jobs in the communities. For others, the reason is that there are still poor social amenities and infrastructural facilities despite the mining activities in their communities whereas some of the respondents explained also that mining has taken over their farmlands and displaced many people from their homes and livelihoods whilst in most cases the land acquisition compensation is very low. On the contrary however, some of the respondents who disagreed with this assertion explained that mining has contributed in general development in the community and cite the educational sector in particular as having benefited from the contributions from the mining sector. Consequently, the World Bank (2011) in its internal evaluation report noted that, the government of Ghana’s effort to utilize the country’s mineral revenues to promote people centered development was still a work in progress.

Along with this, the respondents were also asked if their communities will be better off without the mining operations. Figure 59 shows the distribution of their responses and indicates that 95 out of the 100 heads of households responded to this question. From the figure, a narrow majority of 59% responded that their community would not be better off without mining in their communities whilst 36% responded in the negative that their communities would be better off without mining.

**Figure 59: Would the community be better off without mining?**



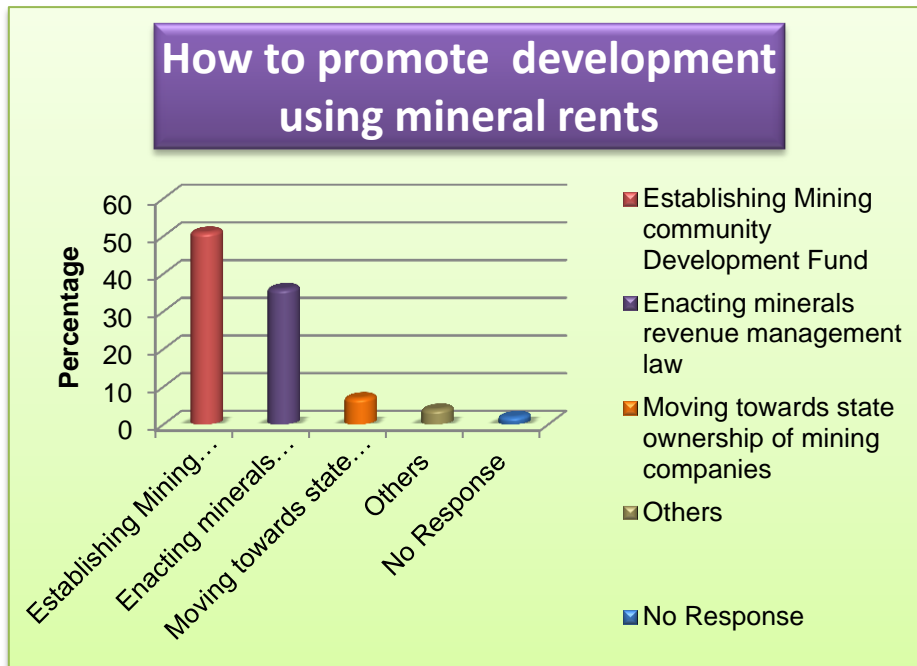
Source: Fieldwork (2016)

In explaining their positions, the respondents who responded in the affirmative said that, firstly, if there were no mining in their communities, agriculture, especially farming would have been done on a large scale because many people would have been attracted into it. Secondly, only few people are benefiting either directly as in the case of employment, or indirectly as in the case of enjoying the social interventions and social infrastructures funded from the royalties and revenues of mining. Besides this, mining is destroying their environment and that their community is worse off in terms of general development compared with other non- mining

communities in Ghana. The field data confirms a study by the International Council on Mining and Metals (ICMM, 2015) that reports that the negative effects of mining in Ghana includes, destruction of the environment, collapse of the livelihood, health problems and social vices. This means that whereas a vast majority of the respondents on one hand agree that the mining companies make a lot of profit to the detriment of the development of the Western region in general, at the same time; most of them were also of the opinion that their communities would have been worse off without the mining activities. On the contrary, those who responded negatively also said that, firstly, there is a huge potential in mining, however, this potential can only be fully realized if mining is responsibly managed to create jobs and diversify economic activities. Secondly, others also added that some of the respondents were of the opinion that mining operations in the community has resulted in the booming of the sales and trading sector in the area.

On the issue of how mining can be done responsibly to promote social development, the respondents were asked to indicate what can be done to ensure that mining communities benefit from the mineral wealth of their land. Figure 61 gives a distribution of their responses and indicates that 98 out of the 100 respondents responded to this question. From the figure, the respondents were given the options of; establishing mining community development fund, enacting mineral revenue management laws, moving towards state ownership of mining companies and also to express other opinions that might not have been captured.

**Figure 60: How to promote development with mining rents**



Source: Fieldwork (2016)

Figure 61 above indicates that a simple majority of the respondents representing 51% opted for the establishment of a mining community development fund, 36% for laws to be enacted to regulate the management and use of mineral revenues and 7% supports the moving towards state ownership of mining companies. Ghana currently has a Mining Fund, however authors such as Standing (2014); Pedro (2005); Pegg, (2003); Allen and Thomas, (2000) have argued that the problem with the Fund have been mainly the lack of clear legislative policy on how this Fund should be spent, lack of transparency and accountability as well as participation in the mineral governance structure of Ghana.

#### **4.6. TRANSPARENCY AND ACCOUNTABILITY**

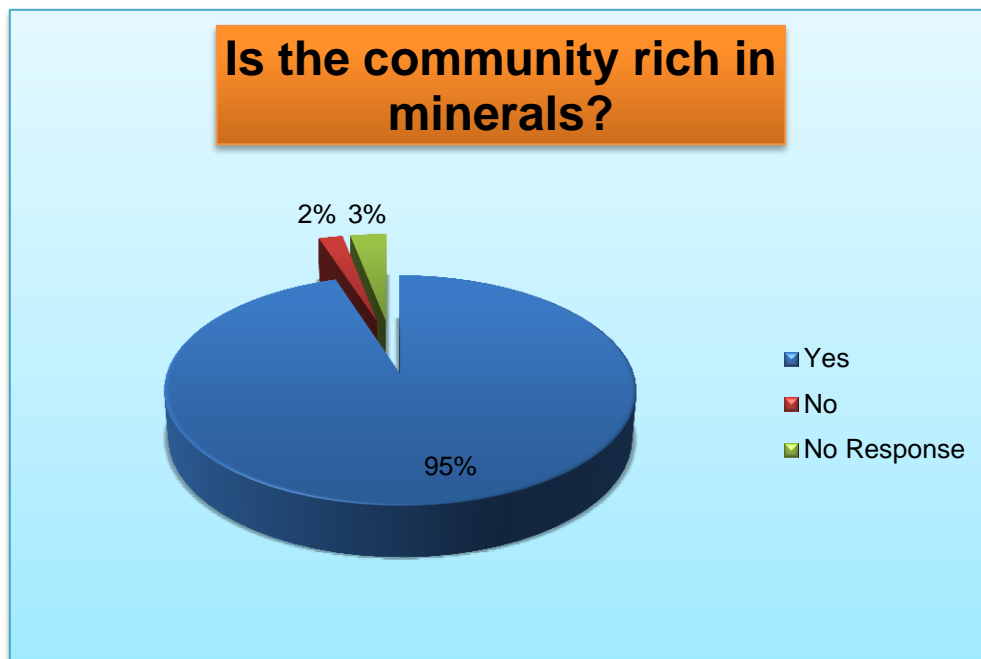
Transparency and accountability are two buzzwords in development management and studies. The two concepts are closely related and involve accessible

information, institutions and processes. Transparency and accountability are pivotal to the governance concept and the definition and measurement of development in general.

From this understanding, the discussion explored the extent to which the current governance system is transparent and promotes accountability with the aim of promoting people centred development.

The respondents' knowledge of the mineral resources in their community was tested. They were specifically asked to indicate if their communities are rich in mineral resources. From figure 62 gives a distribution of their responses and indicates that 97 out of the 100 respondents responded to this question.

**Figure 61: Is the community rich in mineral resources?**

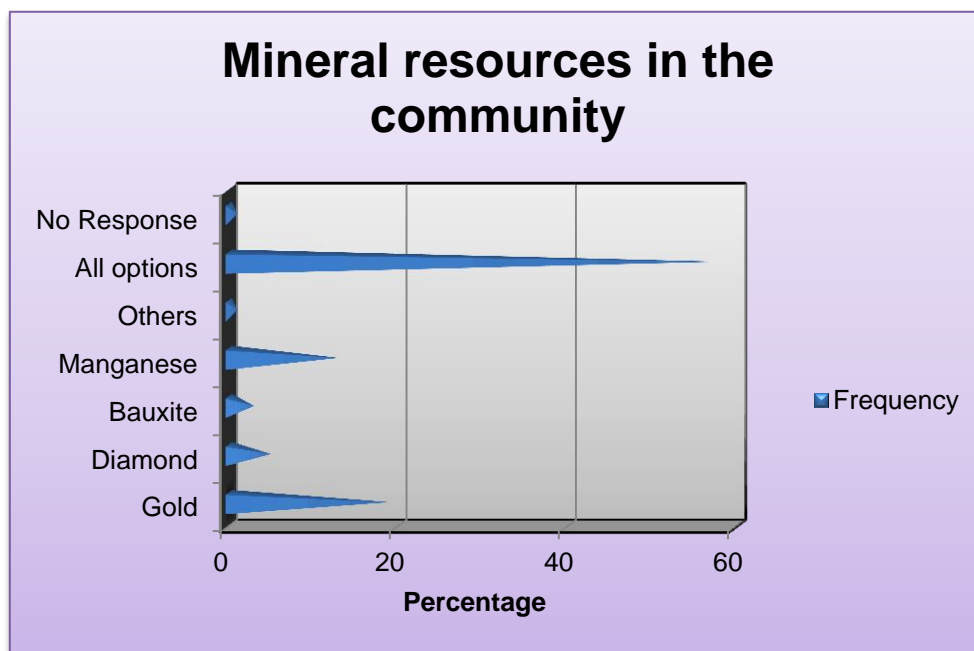


Source: Fieldwork (2016)

Figure 62 above shows that a very vast majority of the respondents constituting 95% indicated in the affirmative that they are aware that their communities are rich in mineral resources with 2% responding in the negative.

Some of the respondents were asked to indicate the main mineral resources extracted from their locality. Figure 62 gives the distribution of their responses and indicates that out of the 100 respondents, 3 of them did not respond to this question. The main mineral resources in Ghana are gold, diamond, bauxite, manganese and other minerals in smaller quantities.

**Figure 62: Mineral resources in the community**



Source: Fieldwork (2016)

From the figure, the proportion of respondents who responded that their communities have all the minerals listed constitutes a narrow majority of 58%, with



19% indicating gold, 5% diamond, 3% bauxite, 13% manganese and 1% indicated other minerals not mentioned in the options given.

Furthermore, the respondents were asked to express their opinion on whether mineral resources have a role to play in the development of their communities and Ghana as a whole. Figure 17 gives the distribution of their responses and indicates that almost all the respondents constituting 97% opined that mineral resources have a role to play in national development. Only 3% of the respondents answered in the negative.

**Table 11: Do mineral resources have a role to play in community development?**

<b>Do you think mineral resources have a role to play in community development?</b>	<b>Frequency</b>	<b>Percent</b>
<b>Yes</b>	97	97%
<b>No</b>	3	3%
<b>Total</b>	100	100%

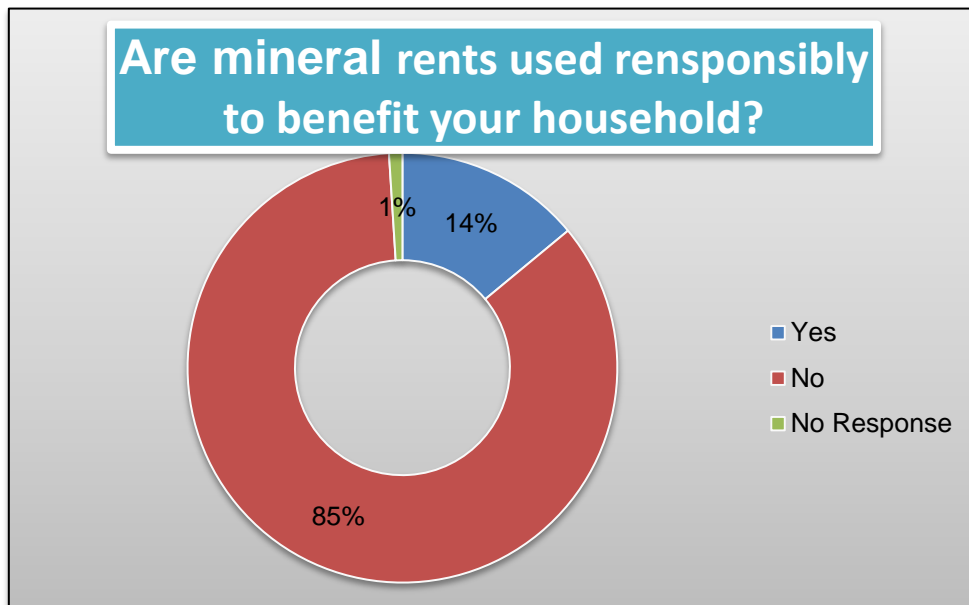
Source: Fieldwork (2016)

In explaining their various positions, some of those who responded in the affirmative gave various reasons to substantiate their claims. To some, the country generates revenues from mineral resources through the taxes and royalties, and when the revenues are used responsibly, it can promote socio-economic development. Others explained that mining can promote investments and employment in the country whilst some also added that royalties from the mining companies to the communities can be used to promote development interventions for the benefit of the people. Besides this, some explained that the mining activities have helped to boost trading activities in most of the mining towns. Whilst some of the respondents agree that

mining can promote socio- economic development, they were however of the opinion that this can happen under a condition. To them, there is the need for incorruptible people to be elected into leadership positions since corruption is a hindrance to revenues and royalties from minerals being used for people centred development interventions. Other respondents indicated the need for funds from minerals to be used judiciously in priority areas for the general good of the people in Ghana. On the contrary, the few who responded in the negative also explained that firstly, the cost of living has been very high even in the mining communities and secondly that mining causes severe environmental damage to their communities.

From the community and national level, they respondents were asked whether they or other members of their households benefit from the mining sector. Figure 64 gives the proportion of their responses and indicates that a vast majority of the respondents representing 85% indicated that neither they nor other members of their household benefit either directly or indirectly from the mining revenues and royalties while a minority of 14 % indicated that either they or other members of their households has benefited directly or indirectly from the mining sector.

**Figure 63: Benefits of the mining sector to the household**



Source: Fieldwork (2016)

Some of their explanations for those who responded in the affirmative are that, only the chiefs and those closely related to the royal stools benefit from the royalties and other opportunities related to the mining sector. This situation is so due to the lack of transparency and accountability in the access and utilization of the royalties and mineral revenues. Others still maintained that the cost of living is very high and that the mining sector has not helped them in anyway, adding that only those who work directly with the mining companies and their related sectors benefit from the wealth of the minerals. Irresponsible use of the mineral funds were also once again identified by the respondents as being a major reason why they think they don't benefit from the mining sector. They particularly did not understand why all the colossal amount of money from the mining sector has not been used to fund socio-economic development in their communities. The field data and particularly this assertion is similar to the study findings arrived at by WACAM (2012: 63), an NGO working in mining communities across Ghana, that "mining communities surveyed

perceive mining as not being beneficial to them...” .Contrary to this, in an interview with the Minerals Commission of Ghana to find out if they agree that mineral resource rents have not benefited Ghanaians, the official of the Commission responded that;

*“No, I wouldn’t say that. In 2012, it contributed to 27% of Government revenues. With the coming in of oil, 2015 it contributed to 14% of government revenues. Now look at all the buildings and development going on in Accra, ie roads. The challenge has been that government haven’t labelled and indicated which of the projects are funded from the mineral revenue that is why we are advocating for the Mineral Revenue Management Act”.*

He further admitted that the District Assemblies, who are the local government authorities, spend their share of mining revenues on things that do not directly benefit the people.

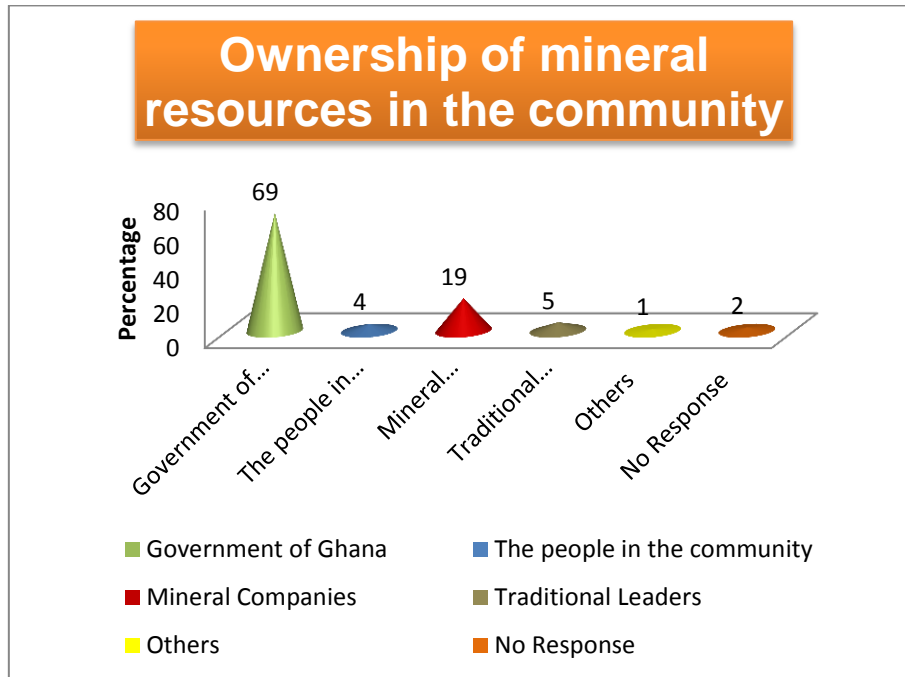
*“They normally refer to it at recurrent expenditure, and sometimes they use part the money to collect waste. We therefore normally tell them that mineral is are resources that deplete, therefore revenues from it that come to them should be used for sustainable projects such as schools, hospitals and other tangible things so that posterity can appreciate the contribution from mining. So that was a problem we encountered with the District Assemblies, so now the Commission and the Ministry of Finance have given them guidelines for the utilization of mineral revenues since last year 2015. We have also been encouraging the District Assemblies to have a dedicated account for the Mineral revenues that come to them”.*

(Interview with the Manager, Sectorial Policy and Planning, Minerals Commission of Ghana, 4<sup>th</sup> July, 2016).

Similarly, in previous financial audit in the district assemblies have raised serious financial irregularities including, misappropriation of revenues, improper auditing systems, among others (Extractive Industry Transparency Initiative, 2016). Similarly, the IMF (2012:101) had in its poverty reduction strategy confirmed that “weak financial management practices is rampant and there is general lack of accountability and transparency in the utilization of the District Assemblies Common Fund and other resources at the district level”.

The issue of ownership of the mineral resources is equally important, as such, the respondents were asked to indicate who owns the minerals in the Western region. Figure 65 gives the distribution of the ownership of the mineral resources and shows that 97 out of the 100 respondents did not respond to this question. The possible owners that were provided are, Government of Ghana, the people in the community, mining companies of Ghana and the traditional leaders in the mineral wealth communities.

**Figure 64: Ownership of mineral resources**



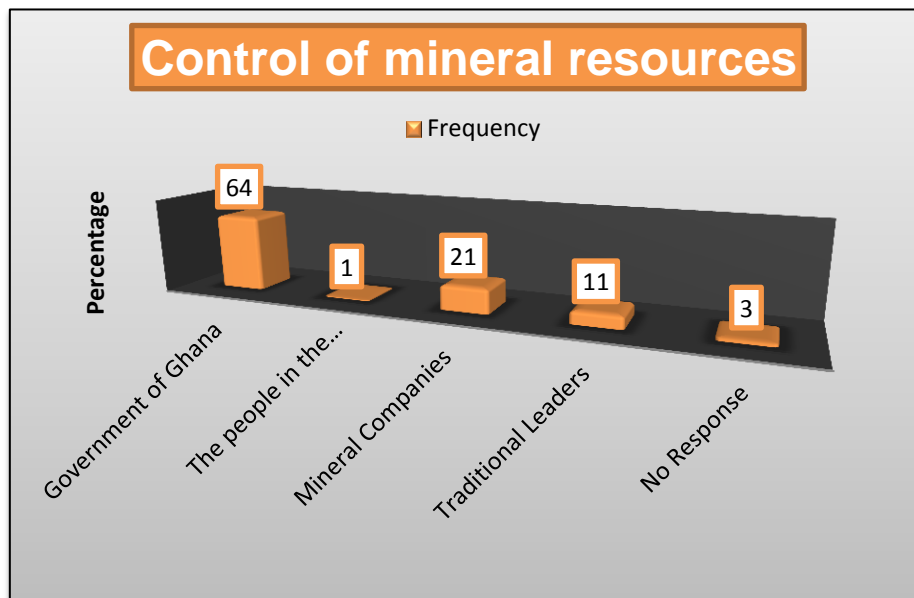
Source: Fieldwork (2016)

Figure 65 above indicates that majority of the respondents constituting 64% were of the opinion that the mineral deposits belong to the Government of Ghana, 21% opted for mineral companies, 11% opted for the traditional leaders and 1% opined that it belongs to the people in the community. This means that the ownership of the minerals resources by the Government of Ghana is widely acknowledged by most people Ghanaians.

Similarly, the control of the mineral resources is also very important in its governance system. Consequently, the respondents were asked the study asked the respondents to indicate who they think controls the minerals resources and the revenues from it. Figure 65 gives the distribution of their responses and indicates that 97 out of the 100 respondents did not respond to this question. The options

given are government of Ghana, the people of Ghana, the minerals commission and the traditional leaders.

**Figure 65: Control of mineral resources**



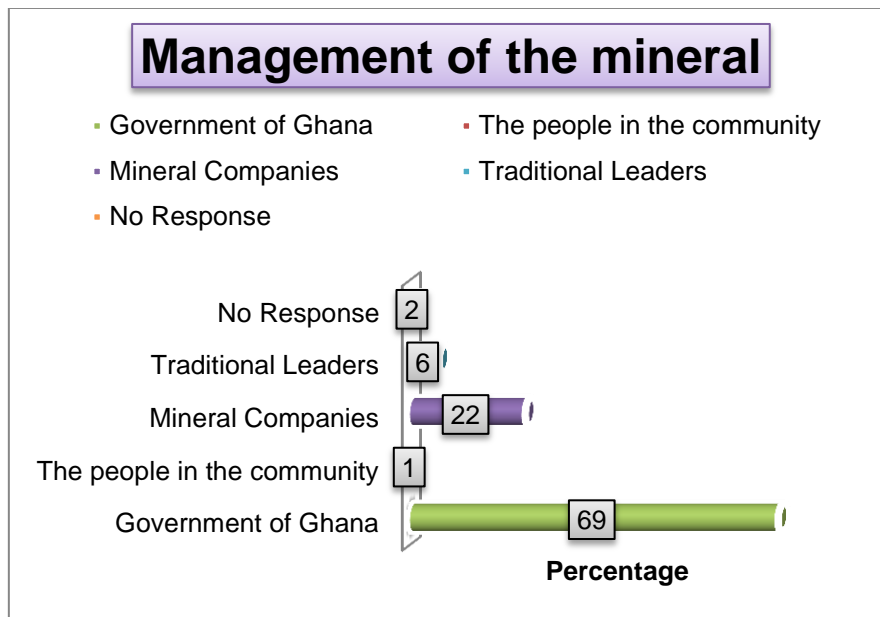
Source: Fieldwork (2016)

Figure 66 shows the distribution of their responses and indicates that majority of the respondents constituting 64% were of the opinion that the mineral resources are controlled by the Government of Ghana, 21% opined that they are controlled by the mining companies, 11% indicated the traditional leaders and 1% indicated that it controlled by the people in the community.

The study further explored the management of the mineral resources. The respondents were asked who manages the mineral resources. The various options for the management of the resources are Government of Ghana, the people of Ghana, mining companies, traditional leaders. Figure 66 shows the distribution of their responses and indicates that 98 out of the 100 respondents did not respond to this question. Figure 67 below however shows that majority of the respondents constituting 69% responded that the Government of Ghana manages the mineral

resources and its revenues. Only 1% indicated that the community is in charge of the management, 22% indicated that the mining companies are in charge with the management with 6% opting for the traditional leaders.

**Figure 66: Who managers the mineral resources?**



Source: Fieldwork (2016)

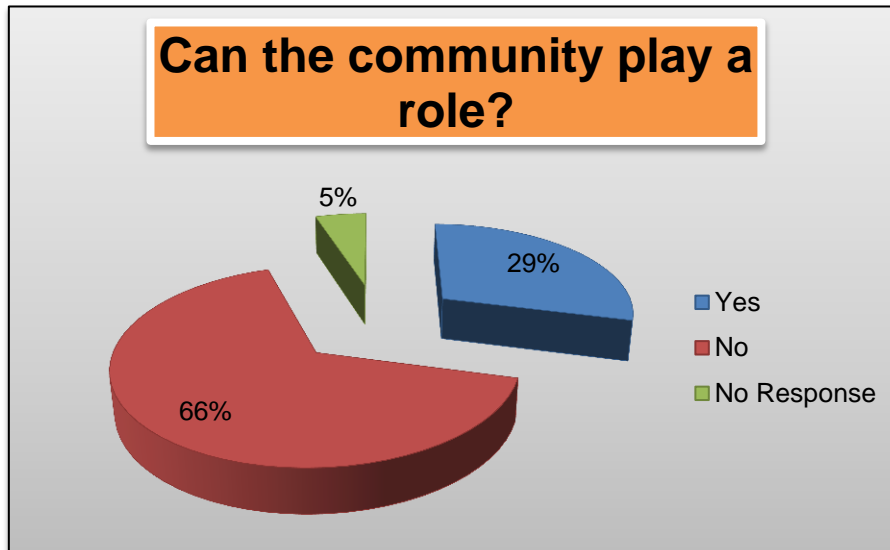
In view of the data, majority of Ghanaians are of the opinion that the mineral sector is managed by the Government of Ghana.

The current mineral governance structure places the ownership, management and control of the mining sector on the central government. The study wanted to investigate whether the community can equally play a role in the ownership, control and management of the mineral resources. Figure 68 shows the distribution of the respondents on their take on whether they think the community can play a role in the ownership, control and management of the mining sector. The figure indicates that 95 out of the 100 respondents responded to this question and shows that majority of the respondents constituting 66 % responded that they don't think the community



can play a role in the ownership, control and management of the mineral resources with 29% responding in the negative.

**Figure 67: Can the community play a role in resource management?**



Source: Fieldwork (2016)

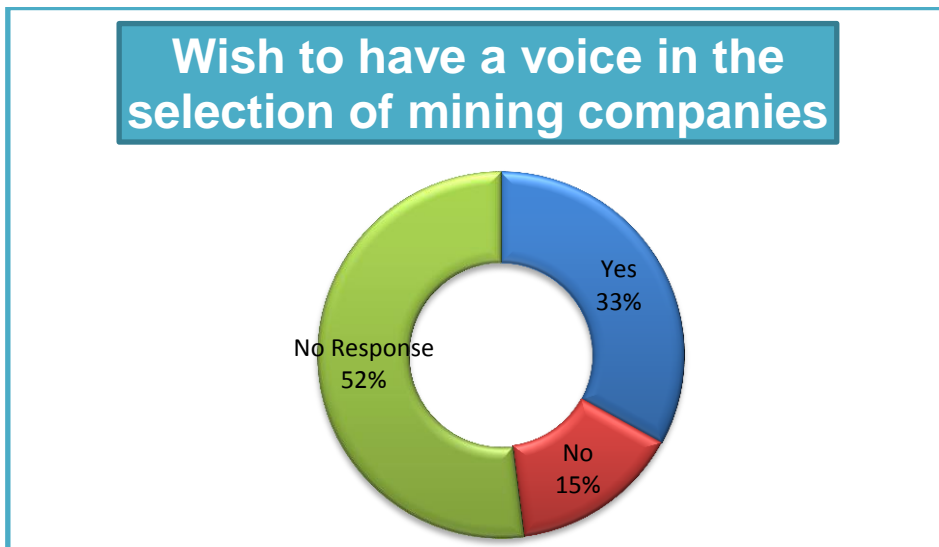
The respondents gave varied views to substantiate their options. Some of those who responded in the affirmative responded that when the community is given the role to own, control and manage the mineral it will enhance participation and accountability and ensure that the people in the mining communities are actually part of the decision making process. Others also added that when the community is given role to own, manage and control the resources, it will help to create jobs for most people in the community and help to redistribute wealth which for them will bring sustainable development. On the contrary, those who responded in the negative also had the following to say; for some, the community leaders (mainly the chiefs and other traditional leadership, the assemblymen, the members and the District Chief Executives) are corrupt and will misappropriate the funds generated from the minerals. Some went a step further that the traditional leaders and the politicians are

the same (they are all corrupt and dishonest). They explained that currently, the royalties which the chiefs and other traditional leader receive are not spent in a transparent and accountable manner. Again, some explained that the community do not have the technical capacity to manage the mineral resources. A similar study by Standing (2014) revealed that too often, chiefs have tended not have interest in investing mineral revenues in the development of their people. Besides, there are no transparency and accountability mechanisms on how the revenues are received and utilised. The lack of community stakeholder engagement and no proper regulation accounts for this (Boachie- Danquah, 2011).

Furthermore, explanations were given that when the community is given the opportunity to own, control and manage the resources, the revenues and royalties will not be used to support sustainable development initiatives. In the same way, others were of the opinion that the revenues gotten from the mining sector should be used to subsidise the cost of basic social amenities such as water and electricity in the communities. For such people, such a move will ensure the equitable distribution of the mineral revenues.

The study also wanted to find out if the respondents would want to have a voice in the decision making processes that leads to the selection of mining companies to operate in the communities. Figure 69 gives the distribution of their responses and indicates that 48 of the respondents responded to this question. From the figure, 33% responded that indeed they would want to have a voice in the processes of company selection to the communities, whiles the remaining 15% responded in the negative.

**Figure 68: Do you wish to have a voice in the current governance system**

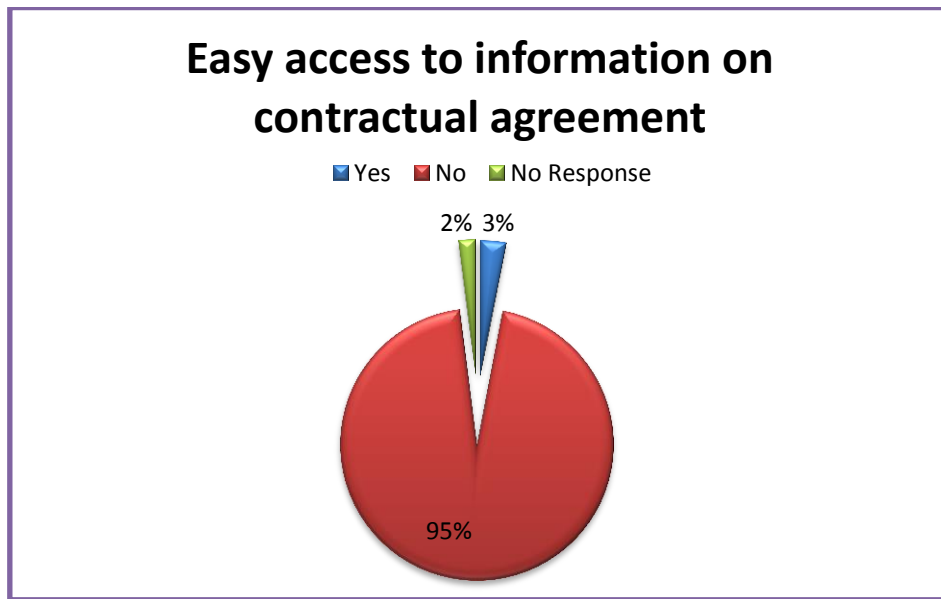


Source: Fieldwork (2016)

There is therefore the general interest and willingness of the communities to participate in mining related decision making to grant them the opportunity to express their views and concerns in the sector. This confirms an earlier work by Boachie- Danquah (2011) that there is the lack of community stakeholder engagement and no proper regulation that will ensure that people in communities can participate in mining related decision making.

In order to find out how transparent the current governance system is, the respondents were asked if they can easily access contractual agreements between the government of Ghana and the mining companies. Figure 70 below shows the proportion of their responses and indicates that 2 out of the 100 respondents did not respond to this question.

**Figure 69: Access to information on contract agreements**



Source: Fieldwork (2016)

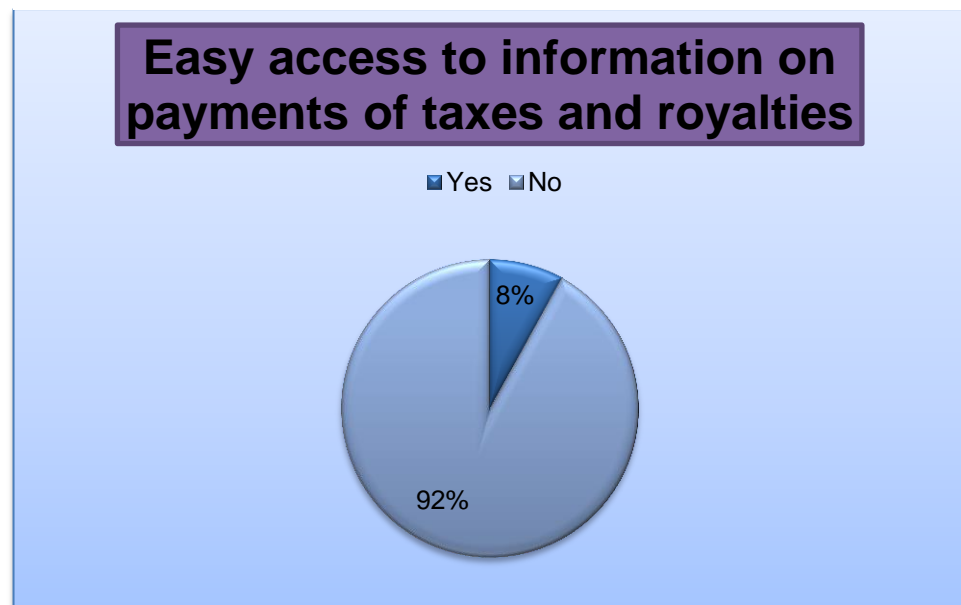
Figure 70 above shows that a vast majority of 95% responded that they can't access such information whereas responded in the affirmative that they are able to access such information. However, in responding to the issue of whether Ghanaians are involved in the contractual process, the official of the Minerals Commission responded that;

*“People have representatives in Parliament. I’m yet to see a country where the ordinary people are given copies of mining contract agreements. But as a standard practice, When the agreements are made by the Attorney General and our legal team, and then it goes through Parliament. The people’s representative is in Parliament. So for example if there is something wrong (it will not benefit the people of Tarkwa) with an agreement between the government of Ghana and AngloGold Ashanti in Tarkwa, the Member of Parliament for Tarkwa is supposed to raise it for it to be addressed in Parliament”.*

(Interview with the Manager, Sectorial Policy and Planning, Minerals Commission of Ghana, 4<sup>th</sup> July, 2016)

Similarly, the respondents were asked if they can easily access information on payments made by mining companies to governments in the form of taxes and as well as the amounts of royalties that are go to the community leaders. Figure 71 illustrates their responses and also shows an equally vast majority of the respondents constituting 92% indicated that they cannot access such information whereas 8% responded in the affirmative.

**Figure 70: Access to information on payments**



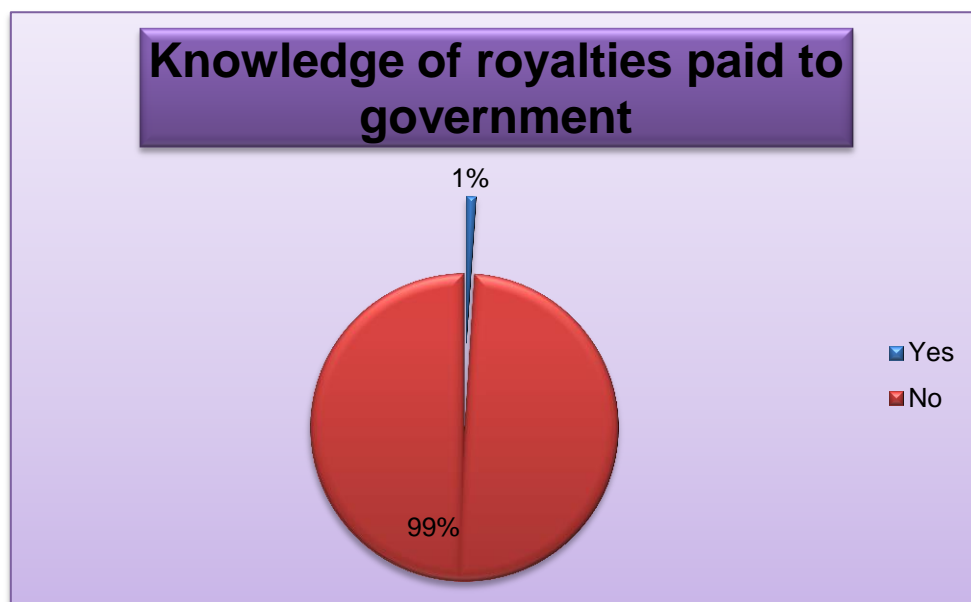
Source: Fieldwork (2016)

Those who assented to the question explained that they are able to the access such information on the radio stations in the communities , local government leaders and

those close to them, community Non-governmental organizations whose focus is in the mining sector and the annual budget of the mining companies.

Furthermore, a specific question of whether the respondents know the amount of royalties and taxes paid by the mining companies to government of Ghana and whether these amounts are made public.

**Figure 71: information on royalties paid to government**



Source: Fieldwork (2016)

Figure 72 shows the proportion of their responses and illustrates that almost all the respondents constituting 99% responded that they don't know how much royalties the mining companies pay to the government except 1% who assented to this question. As a result of this there seems to be a limited information flow between the government, companies and the communities. However, when the question was posed to the official of the Ghana Chamber of Mines, an association of mining companies in Ghana, if they think Ghanaians know how much money the mining

companies pay to the government in the form of corporate taxes and royalties, the official responded that;

*“Yes, they do. For example a billboard on the Tetteh Quashie round about that Newmont and Goldfields advertises how much they paid to government in 2015. They publish some in the daily papers. Not all the mining companies do that but Newmont and Goldfields especially do that. The two companies do that in their interest.*

*The Chamber collates data of how much the mining companies paid to government in the form of corporate taxes annually. The data collected aggregates everything, all the taxes together so that for example AngloGold in Obuasi and Takwa, people in Obuasi wouldn't know how much exactly was paid in form of taxes.*

*The EITI is a very good platform for transparency for which the Chamber is a founding member. Here each company reports how much corporate taxes, royalties and property taxes they pay to the government, local assemblies, and regulators. It is published in a report and distributed in the districts. The distribution is done through stakeholder fora where NGOs, civil society organizations are invited”.*

Interview with the public relations Officer of Ghana Chamber of Mines, 10<sup>th</sup> July, 2016).

Nevertheless, when the same question was posed to an official of WACAM, an NGO that advocates for the development of mining communities, the official responded that;

*“The contract agreements that spell out the amount in terms of royalties that these companies pay to the government are not made public to the general public, not even the local mining communities”.*

(Interview with the Public Relations Officer of WACAM), 16<sup>TH</sup> July, 2017)

Narrowing it further, the respondents were asked their knowledge of the amount of monies the central government disburses to their local governments in the mining communities through their community heads. Figure 73 shows their proportion with regards to this and indicates that nearly all the respondents representing 99% of the respondents responded that they are not aware of the amount with only 1% who assented to this question.

**Figure 72: Knowledge of amount of royalties paid to the community**

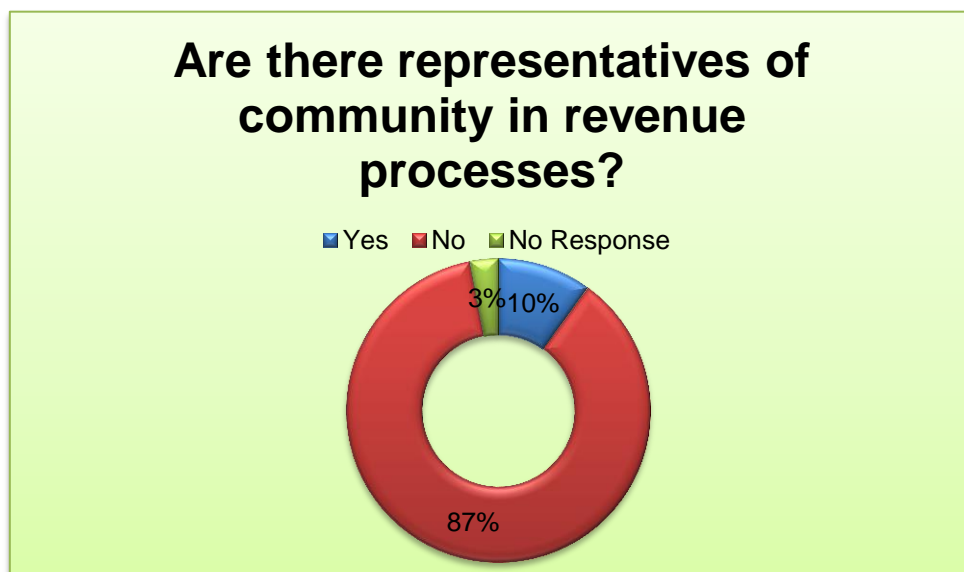


Source: Fieldwork (2016)



Equally important are groups, organizations or institutions that represent the interests of the communities in the process of contracting and disbursement of mineral revenues and how they are spent in the country as a whole the Western region specifically. In view of this, the heads of the household selected for this study were asked if there exist such groups or organizations and their knowledge of them. Figure 73 illustrates the proportion of their responses on their knowledge of civil society organizations that advocate for the development needs of the Western region and show that 97 out of the 100 respondents expressed their opinion on this question.

**Figure 73: Are there groups/ organizations that represent the interests of the community?**



Source: Fieldwork (2016)

Figure 74 above shows that 87% representing a vast majority of the respondents were of the opinion that they are not aware of such groups and organizations with 10% indicating that they are aware of such organization or groups. Some of the respondents who responded in the affirmative identified some of the organizations as

community radio stations, Non- Governmental Organization such as WACAM and some local community leaders.

Moreover, the respondents were asked to express their opinions about what they think can be done to ensure that government officials, who superintend over the mineral funds; mining companies and local community leaders who receive mineral royalties on behalf of the people utilize the funds in a transparent and accountable manner. From their responses, some suggested that, there should be a legislation to promote transparency and accountability or if such legislations exist already in the county's status books then there should be strict enforcement of such laws. Others were also of the opinion that corrupt officials should be prosecuted to serve as a deterrent while others called for honest leadership to control and manage the resources from minerals. Besides these, others opined that there should be the encouragement of community participation and sensitization backed by legal framework. Others suggested that, instead of the current arrangements where the mining companies directly pay taxes and royalties to the government, rather, the mining companies will do a better job if given the mandate to use the percentage due the community to directly develop the community. This to them will see a massive improvement in social interventions and infrastructural development. There was also the call for there to be another regulatory body aside the minerals commission to have an oversight responsibility on the spending of mineral rents. This will ensure that mineral rents are used judiciously for socio-economic development of the country.

Unlike the respondents who were optimistic that there can be improvements provided the right things are done, there were others who were pessimistic and responded that the situation indeed looks hopeless to the extent that nothing can be

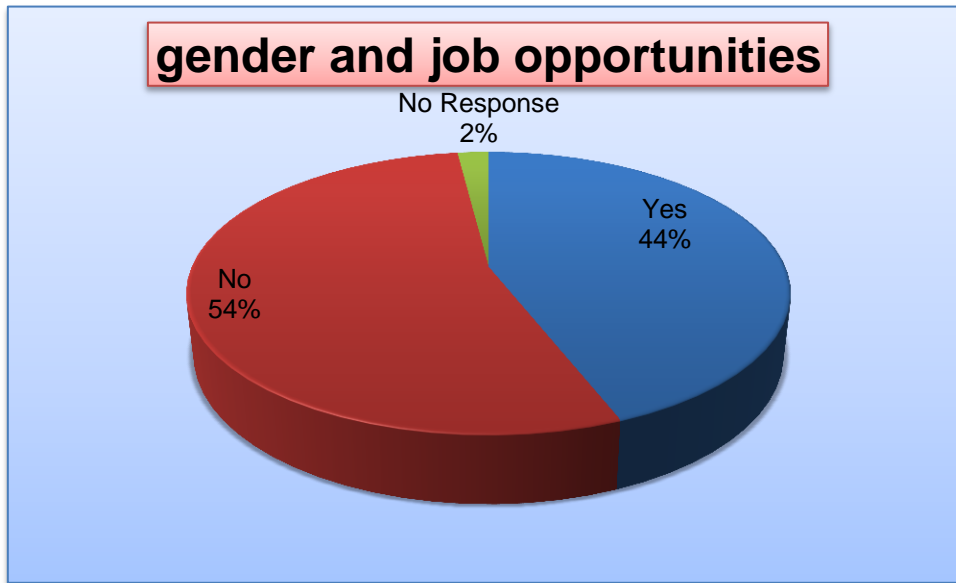
done about it to bring improvement to especially mining communities and regions such as the Western of Ghana.

#### **4.7. EQUITABLE PARTICIPATION**

Equitable participation has become one of the definitions of the concept of development. This is even more so since almost all known societies are made up of heterogeneous compositions. This means that society is made up of social differences and social stratification in terms of wealth, power, prestige and privileges (Nukunya, 2003). These social differences have led to an unequal access to the various social goods and services in society. As a result of this, the study identified some of the social differences in the Ghanaian society to find out how the current governance structure in the mining sector positions them, in terms of access to job opportunities.

The issue of gender is one of such social differences; as such the respondents were asked whether the mining sector creates equal job opportunities for both males and females. Figure 75 below illustrates the distribution of the responses of the respondents and shows that out of the 100 respondents, 98 responded to this question. Their responses reveal that a slim majority representing 54% indicated that the mining sector does not create equal opportunities for both males and females. The proportion of respondents who responded in the affirmative to this question constitutes 44%.

**Figure 74: Gender and job opportunities**

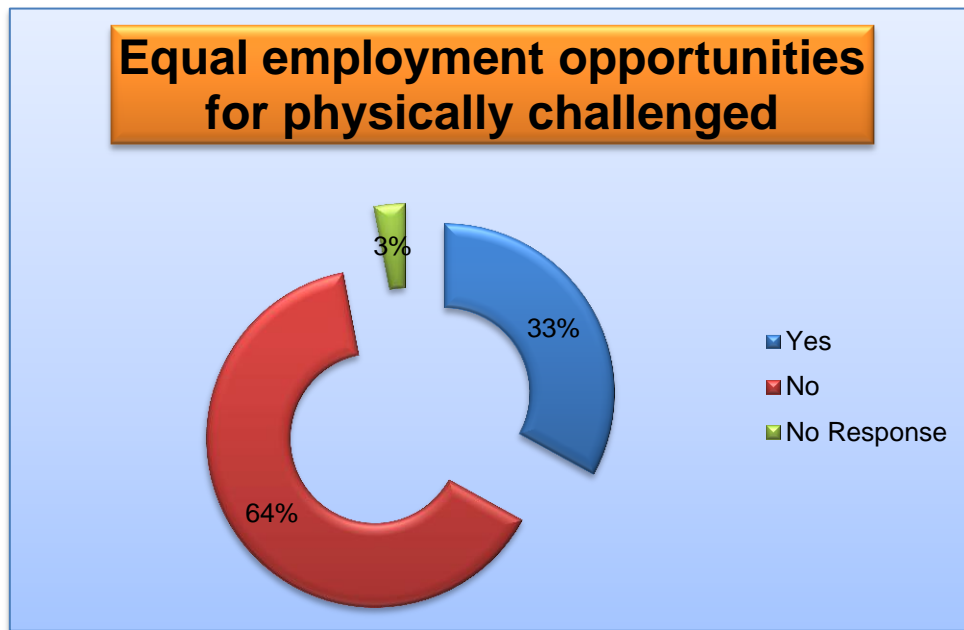


Source: Fieldwork (2016)

As a result; a slim majority of the people in the Western region are of the opinion that the mining sector is gender biased in terms of opportunities for job creation. When asked for their explanation, some of those who responded in the affirmative explained that both males and females are working in the mines and that several of such women are in high positions. On the contrary, the majority who responded in the negative explained that the entire job in the mines is very tedious and not for women, as a result only few females are employed in the administration.

Moreover, on the issue of the physically challenged persons and able-bodied people, the respondents were asked if the mining sector creates equal job opportunities for both physically challenged and abled bodied people. Figure 76 illustrate the responses on the respondents on whether the mining sector creates equal job opportunities for the able bodied and the physically challenged persons.

**Figure 75: Are there equal job opportunities for physically challenged?**



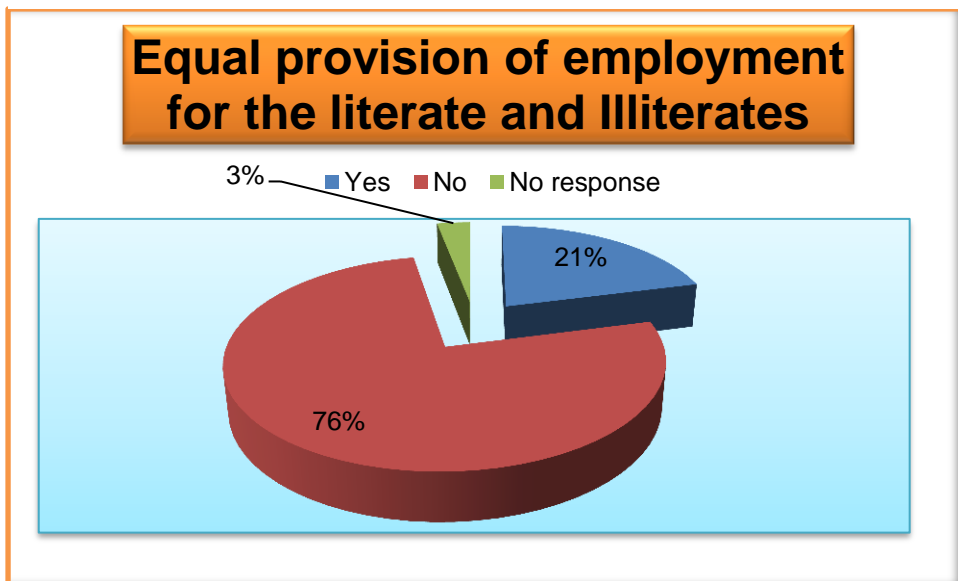
Source: Fieldwork (2016)

From figure 76 above, 97 out of the 100 respondents responded to this question and that majority of the respondents representing 64% indicated that currently, the jobs available in the mining sector are biased towards able-bodied people to the detriment of persons with disabilities. The minority who assented to this question constitute 33% of the respondents. In the explanation of the majority who responded in the negative to the question said that the nature of the jobs in the mines is not friendly to those who are physically challenged. The only time such people may be considered is when they get injured in the process of performing their duties are taken care of and maintained in the mining companies.

On the issue of manual and mental labour, the respondents were asked to express their opinions on whether they think the mining sector creates equal job opportunities for both literates and illiterates. Figure 77 shows the distribution of the responses of the heads of household selected for the study and indicates that majority of the

respondents representing 76% were of the opinion that the mining sector do not create equal job opportunities for both literates and illiterates with 21% assenting that the mining sector creates equal job opportunities for both literates and illiterates in the mining sector.

**Figure 76: Are there equal employment opportunities for literates and illiterates?**



Source: Fieldwork (2016)

Some of those who explained in the affirmative indicated that in some cases illiterates and people with no formal education are employed when mining company's sub-contract part of their jobs to other smaller companies and that the few illiterates who are employed are mainly engaged as labourers, those who do the unskilled jobs. On the contrary however, those who responded in the negatively explained that the mining sector especially the mining companies employ highly educated and skilled people but not the illiterates and people with very little or no formal education.

Another important area to look at is a group of people whose livelihoods are negatively affected by the mining operations intentionally or unintentionally. As a

result, the respondents were asked if are aware of groups of people who have suffered because of the mining operations in the community. Table 13 gives a distribution of respondents on their opinion of a group of people who have suffered the consequences of mining in the community. The table indicates that 90 of the respondents out of the 100 responded to this question. Majority of the respondents constituting 71% assented to the question whiles the corresponding 19% responded in the negative.

**Table 12: Groups of people suffering due to mining activities**

Are there group of people suffering because of mining operations?	Yes	No	No Response	Total
Frequency	71	19	10	100
Percentage	71%	19%	10%	100%

Source: Fieldwork (2016)

When asked to mention some of the suffering, one of those who assented to the question identified that;

*“many farmers have lost their livelihoods through the destruction of their farms, those who live very close to the mining sites suffer from frequent ‘blasting’ and mining waste which pollutes the environment and eventually affects the health of the people in especially mining towns”.*

When the issue of environmental pollution of mining was posed to the Ghana Chamber of mines in an interview, the official was of the opinion that pollution of the environment was mainly caused by the illegal mining in the country. The official responded that;

*“Mining companies also attract illegal mining operations. We need to draw a distinction between ‘regulated’ and ‘non-regulated mining’. It is the unregulated mining that creates most of the environmental challenges”.*

(Interview with the Public Relations Officer of the Ghana Chamber of Mines, 10<sup>th</sup> July, 2016)

While other respondents said water pollution through the use of chemicals by the mining companies which also affects the health of the people. People get dislocated without their due compensation because they live very close to the mining sites”.

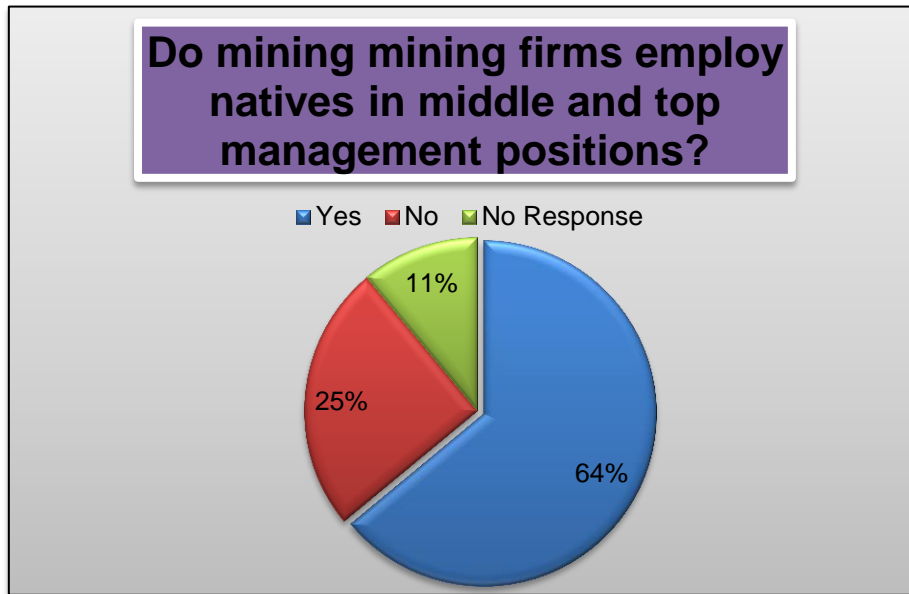
Further, one other person said “the physically challenged, the youth, and the illiterates as well as unskilled workers are among the group of people who have suffered from mining activities”.

Beside this, the respondents were also asked if the mining companies employ natives of the mining communities to its middle to top management positions.

Figure 78 shows the distribution of their responses and indicates that 89 out of the 100 heads of households responded to this question. The figure shows that majority of the respondents constituting 64% assented that natives of the mining companies are employed to the top to middle level management with the corresponding 25% responding in the negative.



**Figure 77: Employment of locals to management**



Source: Fieldwork (2016)

In their explanations, some of those who responded in the affirmative noted that those who are employed are the highly educated people in the communities and some expatriates but only few natives are employed. For some, even job opportunities for local people are not made public and only those very close to the community leaders get access to such information. On the contrary, some of the people who explained negatively said that only expatriates occupy the top management and so the people who occupy the middle and top management positions are mainly from outside the mining communities.

Furthermore, the respondents were made to express their opinions about what is to be done to promote the inclusive participation of minority and vulnerable groups in the mining communities. Some of the responses they gave include that; there should be a legislation to promote active engagement and inclusive participation of all people in the mining communities.

Again, the mining companies should organise capacity building programmes to educate and build the technical skills of the people so that they can be made relevant to the mining companies and mining sector for the purposes of job opportunities. Others noted that there should equally be a legislation to promote transparency and accountability in the mining sector; there should also be an adoption of a local content policy to ensure that local community people are employed in the sector. Moreover, others acknowledged that mining sector should be integrated with other sectors to create jobs whilst for some; people displaced by mining activities should be duly compensated.

#### **4.8. CONCLUSION**

The fieldwork of this study attempted to respond to the objectives of the study, as to how to manage mineral revenues to promote socio-economic development in Ghana. The Western Region of Ghana continues to face challenges in infrastructural development including roads, schools and health facilities despite its mineral wealth.

The main occupations of the people in the communities selected for the study are mining and buying and selling or trading. Agriculture which is the mainstay of the entire Ghanaian economy occupies a very insignificant part of the communities selected for this study. Consequently, the two sectors, mining and trading have not created enough jobs for many of the people in such communities leading to high unemployment rates.

The field data reveals that whilst education and health continue to receive support from especially mining companies, there are still many challenges in these sectors in the Western Region. Mineral revenues and royalties from central government have

not led to significant development in these sectors. The educational system is a caricature of a triangle where the base represents the basic level, which is very broad in access and coverage, but diminishes in numbers and access at the second cycle and tertiary levels. There are very few tertiary institutions in the communities with very high teacher- student ratio especially at the basic level. The health sector on the other hand also suffers very high doctor-patient ratio with woefully inadequate health facilities in especially the rural communities of the Western Region.

Based on the field data, community engagement and participation on decisions concerning mining is very minimal and in some cases almost absent, weakening transparency and accountability. In view of this, the mining sector has created an unequal job opportunities for especially vulnerable and underprivileged people in the communities.

## **CHAPTER FIVE**

### **CRITICAL EVALUATION**

#### **5.0. INTRODUCTION**

Creating the right legal regimes for mining can promote economic and human development in Ghana. However, there is currently a major challenge in the mineral governance system in Ghana. The consequences of these challenges have the potential to thwart the development needs of the people. The western region of Ghana provides a microcosm of the situation. This chapter presents an in-depth reflection of the findings of the study, substantiated with literature review. Further, the following sub-sections summarize the research findings that were investigated in the western region of Ghana. The section discusses the main issues in the study and how they relate to the overall objectives of the research.

#### **5.1. QUALITY OF LIVING CONDITIONS IN THE WESTERN REGION**

The western region of Ghana is endowed with several mineral resources such as gold, diamond, bauxite and manganese. The sector involves foreign mining companies who engage in large scale mining but the government of Ghana still holds the minority shares (10%) in most of these mines. The small scale mining industry is however reserved for Ghanaians. The small scale mining industry has both the legal and illegal small scale mining. Despite the mining activities in the western region, findings from this study indicate that the majority of the people still live below the international economic poverty line of \$1.9 per day (approximately \$6935 per annum). This poverty translates into other areas of the household's conditions of living. To start with, findings from the communities reveal that majority

of the households in the western region live in compound houses, which are the most common types of housing in Ghana for low income earners. Furthermore, 37% of the households in the communities surveyed for the study do not have access to portable water. Out of those who have access to portable water, half of them access water from unimproved sources, making access to portable water one of the major challenges in Ghana.

Furthermore, sanitation poses a challenge to households in Ghana. More than half of the households interviewed do not have their own private descent toilet. This is a common feature of many underprivileged societies in Ghana. Similarly, many households have unhygienic solid waste disposal systems. Only less than half of the households adopt hygienic method of waste disposal.

This Mineral Commission of Ghana is the main government agency responsible for the promotion, regulation and management of the utilization of the mineral resources in the country, as well as the coordination of its policies. In an interview, the Commission was asked to respond to what they perceive are the development needs of the people. The representative of the Minerals Commission indicated that:

*“...Their needs are varied. For example if you go to the Takwa, some of the companies annually meet the people in the community and ask them their development needs. They organize durbars. We are a mineral regulation body for government not a development agency. The District Assemblies is the Development agent in the communities”.*

(Interview with the Manager, Sectorial Policy and Planning, Minerals Commission of Ghana, 4<sup>th</sup> July, 2016).

Similarly, a representative of WACAM also indicated that:

*“1. Most of the people in the Western region where the mining is done are farmers. Agricultures should be improved.*

*2. There should be clear demarcation for areas to be used for mining and areas to be used for agriculture. Most of the areas that are being mined were farmlands bring competition between farmlands for agriculture and mining which sometimes results in conflicts in mining areas.*

*3. People who have been displaced or have their lands taken away from them should be given alternative livelihoods or alternative lands to farm.*

*Some of the development needs of the communities are, agriculture, education, health, infrastructural development and supporting people with micro credit”.*

(Interview with the Public Relations Officer of WACAM, 16<sup>th</sup> July, 2017).

Consequently, it is apparent that majority of the people in the three districts selected for the study live in low quality conditions. Mining activities have also affected agriculture (which used to be the main occupation of the people) negatively, taking over agricultural lands and rendering many of the people jobless. Moreover, people whose lands have been taken over for mining purposes are not properly compensated which have discouraged many people from going into agriculture.

Equally important is the seeming disconnection in the working relations between Minerals Commission of Ghana and the various District Assemblies in the mining areas. As a result of this, mining has not been effectively linked with other non -

mining sectors to create livelihoods to help improve the standard of living of the people.

## **5.2. CHALLENGES WITH HUMAN CAPITAL FORMATION AND SKILLS DEVELOPMENT**

Human capital formation and skills development is very crucial in the development of every society. It involves the process of investing in people and increasing the number of people who have the productive qualities and skills such as education, skills and health of the labour force. The productive qualities of a people are critical for the socio-economic and political development of a country.

The number of educational institutions for training and skills acquisition in Ghana are very small at the tertiary level, in relation to the population but progressively increase in the secondary/high school level and basic level. Vocational and technical institutions which are supposed to be the training centers for technical capacity building for the youth especially are woefully inadequate. The few available institutions do not equip the students with the requisite skills relevant for the mining and other industrial sectors. Further, the current mineral governance arrangement makes it impossible for mining revenues to directly finance education in Ghana. Consequently, funding of education is directly from the consolidated fund, which is a pool of funds by the government of Ghana from the different revenue earning sectors of country's economy. In view of this, funding of education in the Western region of Ghana is no different from government support to education to other areas where there are no mining activities.

Moreover, the cost of education is high at all levels of the educational ladder. At the basic level, the government has introduced the Free Compulsory Universal Basic Education (FCUBE) policy in the public schools, making basic education in the

country affordable and accessible. This however does not cover the basic private schools making it rather expensive and reserved for mainly middle income and affluent people. This two-tier education system which prevails in Ghana has ostensibly encouraged social class stratification, where the rich chooses one tier against the other, with the poor also choosing another tier. Basic private schools tend to be effective in terms of teaching, learning and general performance at the Basic Education Certificate Education (B.E.C.E) than their counterparts in the public institutions.

At the second cycle level, access is still a challenge; some children who progress from the basic level are unable to further to secondary and technical schools. Factors such as non-qualification as a result of bad grades at the BECE, woefully inadequate number of secondary schools in relation to the number of students who qualify to be admitted and inability of parents and guardians to afford the cost of fees, account for this. The second cycle has senior high schools, technical and vocational schools. Out of the three second cycle institutions in Ghana, secondary schools are the most attended by students. This is because the technical and vocational institutions have not received the needed support and attention from government and other stakeholders in the education sector. Many students who graduate from the vocational and technical institutions find it difficult to get tertiary admissions especially into the universities and polytechnics. Quality basic education in the Western region of Ghana still remains a major challenge with twice as high teacher to student ratio, compared with the national average. Besides this, technical and vocational educations have not been properly integrated into the industrial sector leaving many polytechnic and graduates with technical background unemployed. On his take on this issue, the mineral resource expert said that



*“... the few technical institutions in the country have not been well integrated into the industrial sector of the country”.*

At the job market, graduates from the polytechnics and people with technical education background often face huge salary discrimination. University education on the other hand remains unaffordable and the privilege of a few who can afford. This is coupled with the fact that there are only few, in the entire country with only one (University of Mines and Technology) devoted to the study of mining related issues. This university is situated in the Takwa-Nsuaem Municipality.

### **5.3. CHALLENGES WITH MEDICARE IN GHANA**

The health of people is an important factor in development. Previous governments of Ghana have implemented several strategies and policies to increase access to quality health care at an affordable cost. Despite these efforts, findings from the communities interviewed reveal that Ghana still faces challenges in its health sector. Currently, the country has the National Health Insurance Scheme (NHIS) which replaced the previous ‘cash and carry’ way of financing health care in the country. Nevertheless, the study shows that access to health care is still a challenge. The number of health facilities in relation to the population portrays a mismatch since the health facilities are inadequate. The direct consequence of this is the congestion that is often witnessed in the few health facilities (both public and private health institutions). It was revealed from the study that the mining companies do not directly own or run health facilities but do support some of the health facilities as part of their corporate social responsibilities. On the issue of affordability of health care, the study indicates that many of the people registered under the NHIS (a government health insurance scheme) are able to afford the cost of health care whereas those who are not registered in the NHIS find health care very expensive. The study confirmed that

most people access health care under the government funded NHIS with only a few who access it under other means such as those under private companies.

Closely associated with access to health care is the quality health care. The doctor – patient ratio in Takwa Nsuaem is 1: 10,053, which is almost the same as the national average of 1: 10, 170. However, considering the health hazards that mining activities can pose; the doctor to patient ratio is rather on a low side in the mining areas.

#### **5.4. UNEMPLOYMENT IN GHANA**

Aside from revenue generation, employment creation is one of the economic benefits of mining activities. Besides mining, other occupations such as trading and farming are the main occupation of the people in the communities surveyed.

One of the respondents from the communities selected for the study indicated that,

*“Mining activities have contributed to the displacement of people from their farmlands and polluted the lands meant for agriculture purposes. Moreover, mining activities have attracted many people, leaving the other sectors of the economy to suffer”.*

This situation has created a micro mono dependent system in the mining areas, a system which has made all the productive activities in the local mining communities to evolve around mining. This situation may not however apply to the entire country, since Ghana does not depend solely on the extractive sector, but also agriculture and recently crude oil for revenue generation. When asked whether the mining sector has clouded other sectors such as agriculture in the Western region, an official of the Ghana Chamber of mines responded that:

*“Not necessarily. The issue of job sustainability is very critical. The critical question is, how we can channel mining resources into other sectors such as such as manufacturing and agriculture to create sustainable jobs. In view of this, every mining company has introduced the ‘alternative livelihood program’ example, in Takwa Goldfieds is into oil palm plantation”.*

(Interview with the Public Relations Officer of the Ghana Chamber of Mines, 10<sup>th</sup> July, 2016)

On the other hand, trading activities, such as buying and selling are booming in the mining communities, making the sector the second largest employer after the mining sector. Unemployment remains high in Ghana and especially the mining communities and some of the youth adopt every means including illegal means such as unregulated mining just to survive. Findings from the study reveal that mining activities have not created the needed jobs to employ most of the youth in the communities. On his part, a natural resource management expert remarked that:

*“...Since mining is a capital intensive sector, not many people can be employed in that sector; therefore mineral rents should be spent in other sectors that can create jobs. Also it should be spent on the human skills development of the people”.*

(Interview with a mineral resource expert, University of Ghana 30<sup>th</sup> July, 2017)

## **5.5. TRANSPARENCY AND ACCOUNTABILITY IN THE MINING SECTOR**

Transparency and accountability are two very important elements of good governance that promote socio-economic development. These elements cannot exist in isolation but are enforced by institutions and legal framework. People in the

communities revealed that the mining companies are exploiting them of the resources leaving them and their communities poor. This perception if not well managed can instigate violence and acrimony between the local people and the mining companies, which are mainly foreign owned.

Moreover, the respondents revealed that their communities would have been better off without mining. This is simply tied to the structural dependency theory which explains that the extractions of raw materials by Western countries in their former colonies are detrimental to the development of the local people in these countries (Gunder Frank, 1967). Agriculture in particular has suffered due to the destruction of agricultural lands and water bodies by mining activities. The benefits of mining are not clearly evident in the lives of the people in the communities because the revenues are not used in ways that will enhance improvements in the lives of the people. This could be due to the capital intensive nature of the mining sector; which by nature heavily relies on modern machinery and equipment but less human labour.

One question that begs for answers is how mineral rents can be used to promote socio-economic development. When the official of the Minerals Commission of Ghana was asked on this issue, he responded that;

*“We therefore normally tell the local governments that mineral resources are resources that deplete, therefore revenues from it that come to them should be used for sustainable projects such as schools, hospitals and other tangible things so that posterity can appreciate the contribution from mining. So that was a problem we encountered with the District Assemblies, so now the Commission and the Ministry of Finance have given them guidelines for the utilization of mineral revenues since*

*last year 2015. We have also been encouraging the District Assemblies to have a dedicated account for the Mineral revenues that come to them”.*

(Interview with the Manager, Sectorial Policy and Planning, Minerals Commission of Ghana, 4th July, 2016).

The government of Ghana owns controls and manages the mineral resources on behalf of the people of Ghana. The Minerals and Mining Act of 2006 (Act 703) clearly affirms this. Under the Act (703) of 2006, Minerals in their natural state, which is in, under or found on Ghana’s land, streams, rivers, water- courses across the country is the property of Ghana and are vested in the President of the country in trust for Ghanaians. The President of the Republic of Ghana has the mandate under the Act to compulsorily acquire any land for the utilization or development of mineral resources. Moreover, on the granting of mineral rights, the Acts gives power to the Minister responsible for that sector the power to act on behalf of the president to “negotiate, grant, revoke, suspend or renew mineral rights in accordance with the Act” (Acts 703, 2006:6).

The community ownership concept of mineral resources where the local community owns, manages and controls the mineral resources is not likely to work in Ghana. This is because there is a huge mistrust of the local community leaders by the people. The percentage of royalties that goes to the local government and traditional leaders are not spent in a transparent and accountable way. As a result, these local leaders are perceived as corrupt and will misappropriate the funds should the community be given the ownership mandate. Aside this, the local community leaders do not have the competent managerial skills to effectively manage the mining sector. These local leaders include the traditional leaders such as Chiefs, Queen mothers

and other non- traditional leaders including District Chief Executives (DCE's), Members of Parliament, Assembly men and other opinion leaders.

The study revealed that the issue of access to information in the mining sector of Ghana remains a huge challenge. Ghanaians do not have access to information on contractual mining agreements between the Government of Ghana and mining companies. On his part, the official of the Minerals Commission responded that:

*“People have representatives in Parliament. I’m yet to see a country where the ordinary people are given copies of mining contract agreements. But as a standard practice, when the agreements are made by the Attorney General and our legal team, and then it goes through Parliament. The people’s representative is in Parliament. So for example if there is something wrong (it will not benefit the people of Tarkwa) with an agreement between the government of Ghana and AngloGold Ashanti in Tarkwa, the Member of Parliament for Tarkwa is supposed to raise it for it to be addressed in Parliament”.*

(Interview with the Manager, Sectorial Policy and Planning, Minerals Commission of Ghana, 4<sup>th</sup> July, 2016).

Similarly, the study revealed that Ghanaians have no knowledge and information about taxes and royalties paid by mining companies to government of Ghana and traditional leaders respectively. With specific reference to mining contractual agreements, once Parliament passes the bill, it then becomes a public document and information. Such classified information may be derived from Parliamentary Hansards at a fee. Ghana currently does not have a law that gives citizens the right to access classified information from government institutions and organizations. Currently, accessing such classified information from the Parliament of Ghana

comes with a fee and not many people are aware of such information and where they can be accessed.

However, when the official of the Ghana Chamber of Mines was asked if they think Ghanaians are aware of how much revenues the mining companies pay to government in the form of corporate tax and as royalties to local traditional leaders, he responded that

*“Yes, there is for example a billboard on the Tetteh Quashie round about that Newmont and Goldfields advertises how much they paid to government in 2015. They publish some in the daily papers. Not all the mining companies do that but Newmont and Goldfields especially do that. The two companies do that in their interest.*

*The Chamber collate data of how much the mining companies paid to government in the form of corporate taxes annually. The data collected aggregates everything, all the taxes together so that for example Anglogold in Obuasi and Takwa, people in Obuasi wouldn't know how much exactly was paid in form of taxes.*

*The EITI is a very good platform for transparency for which the Chamber is a founding member. Here each company reports how much corporate taxes, royalties and property taxes they pay to the government, local assemblies, and regulators. It is published in a report and distributed in the districts. The distribution is done through stakeholder fora where NGOs, civil society organizations are invited”.*

(Interview with the Public Relations Officer of the Ghana Chamber of Mines, 10<sup>th</sup> July, 2016)

The Extractive Industry Transparency Initiative (EITI) is sponsored and supported by the UK Department for International Development (DfID). The EITI contains guidelines on how to report mining, oil and gas payments by domestic and international companies to governments. The EITI proposes a data aggregation and analyses methods by an independent third party (Rozner and Gallagher, 2007:34). This means that whilst the Ghana Chamber of Mines is trying to adopt the EITI, with the aim of promoting transparency and accountability, there still remain challenges about contract agreements. The official of the WACAM responded that:

*“I agree that EITI initiative is helping to promote transparency only to some extent. The EITI basically publishes receipts between mining companies and government, but then what about the contract agreements that spells out the amount that these companies are supposed to pay to government. The contract agreements are not made public to the general public, not even the local mining communities”.*

(Interview with the Public Relations Officer of WACAM, 16<sup>th</sup> July, 2017)

## **5.6. TRANSPRENCY AND ACCOUNTABILITY IN THE CURRENT MINERALS AND MINING ACT 703 (2006)**

Transparency and accountability are crucial concepts and initiatives in the mining sector if it can promote national development. Some of the key stakeholders in the mining sector of Ghana gave their organizations stance on transparency and accountability.

The following are their responses;

*“Transparency we will say is the involvement of all your stakeholders in the involvement of the whole process. It involves inclusiveness, meaning that you are including everybody in the management process as it is prescribed in our laws. And*



*then with our subscription to the EITI mining companies should provide information for everybody to see and the reports and publicized for all to see what is coming in and it is used. We subscribe to EITI, and once information is made available it means the first step of accountable has been achieved, because you are providing information about how much revenue comes to government and how it is used. What the EITI aggregator does is that he goes to the mining companies and collects information about how much money, in the form of corporate taxes, royalties and property taxes they pay to government. He then proceeds to the government to get the information about these payments for the purposes of the reconciliation of these payments”.*

(Interview with the Manager, Sectorial Policy and Planning, Minerals Commission of Ghana, 4<sup>th</sup> July, 2016).

*“Transparency is showing what you been able to produce, how much the state is supposed to get out of it based on the agreement we have signed and making sure that everybody knows what went to the actors who are supposed to receive something from the mining process. It starts from contract transparency through the payments to the utilization of revenues. By everybody, I mean Ghanaians. Accountability has to do with what you are supposed to pay, how much you paid and how those proceeds are utilized”.*

(Interview with the Public Relations Officer of the Ghana Chamber of Mines, 10<sup>th</sup> July, 2016)

*“Transparency is about full disclosure of full information with no strings attached. The current Minerals and mining Act restricts the general public from accessing information. People are supposed to pay some money to get information. If you look at most mining communities where the people are poor, such fees limit their ability to access mining information. Accountability is adopting procedures to give proper information about whatever you are doing and how it affects people”.*

(Interview with the Public Relations Officer of WACAM, 16<sup>th</sup> July, 2017)

The above mentioned conception of transparency and accountability underscores the views expressed by Rozner and Gallgher, (2007:33) that transparency is “making information available for the general public”. Accountability in the mining sector means, giving information to the general public about how much taxes and royalties are paid to the government by the mining companies, and reporting on how these proceeds are spent.

The current Minerals and Mining Act of 2006 (Act 703) provides a framework for regulating the mining sector. It clearly indicates how the proceeds from mining should be shared among the various stakeholders; these are central government, local government (District Assemblies in mining communities) and local traditional Authorities. The breakdown of the proceeds indicated that 80% goes into the consolidated fund (a pool of all government funds), 10% goes into another fund (used to support government mineral related institutions such as the Minerals Commission) and the remaining 10% which is shared among the local governments and traditional leaders of mining communities.

However, there is a lacuna in the current Mineral Act of 2007 (Act 703) when it comes to issues of transparency and accountability. The current Mineral Act fails to

touch on promoting transparency and accountability and also does not indicate unequivocally how mineral rents should be spent to promote general development. When asked whether there are mechanisms in Act 703 of 2007 that promotes transparency and accountability, the official of WACAM responded that;

*“The minerals and mining Act clearly spells out how mineral revenues should be shared, what percentage should go to whom? What is however missing from the Act is how those revenues should be used. We don’t have a Mineral Revenue Management Act that would regulate the spending of these revenues. This makes proper accountability difficult. If you look at the EITI reports, you will realize that there have been some kinds of reckless spending on the part of government and the local chiefs. Some of the chiefs feel that the monies (royalties) paid to them are for their upkeep. Furthermore, the EITI also reports that some local governments spend their portion of their royalties on waste management. This makes the calculations difficult. As a result of that the impact of the revenues are not felt by the people”.*

(Interview with the Public Relations Officer of WACAM, 16<sup>th</sup> July, 2017).

It is worth noting that in Ghana currently, revenues from minerals are seen and treated as being part of general revenues in the consolidated fund. Money from the consolidated funds is used by government to run its day-to-day business as well as investments in all the other sectors of the county’s economy. This practice dilutes the important contribution of mining in the eyes of the general public and also does not convert revenues from minerals into sustainable human development interventions. In the utilization of the fund, no regional considerations or community considerations are given; as such people from mining communities are not given preferential treatment.

One other important area to focus attention on is the management of these resources and how they are used, especially the percentage that goes to the communities. Findings from the communities selected for this study revealed that, most Ghanaians especially those in mining communities do not feel that they benefit from the proceeds of mining or that proceeds from the mining are invested judiciously in interventions that directly or indirectly benefit them. On his part, the official of the Minerals Commission of Ghana was asked if he agrees to the assertion held by the people that mineral rents are not utilized responsibly. He responded that;

*“Yes, I do. They normally refer to it at recurrent expenditure, and sometimes they use part of the money to collect waste. We therefore normally tell them that mineral is are resources that deplete, therefore revenues from it that come to them should be used for sustainable projects such as schools, hospitals and other tangible things so that posterity can appreciate the contribution from mining. So that was a problem we encountered with the District Assemblies, so now the Commission and the Ministry of Finance have given them guidelines for the utilization of mineral revenues since last year 2015. We have also been encouraging the District Assemblies to have a dedicated account for the Mineral revenues that come to them”.*

(Interview with the Manager, Sectorial Policy and Planning, Minerals Commission of Ghana, 4<sup>th</sup> July, 2016).

The guidelines for the utilization of the mineral revenues is not backed by law and therefore do not compel the leaders who manage these resources on how the rents should be used.

Equally important to the study is the issue of equitable participation by various members of the Ghanaian society. Equitable participation has become one of the

definitions of the concept of development. This is even more so since almost all known societies are made up of heterogeneous compositions in the form of social differences and social stratification in terms of gender, age, level of education, wealth, power, prestige, privileges among others (Nukunya, 2003). These social differences have led to an unequal access to the various social goods and services in society. On the issue of gender, the study revealed that whilst the mining sector employs both men and women, the sector is a male dominated in terms of employment.

Similarly, vulnerable people such as physically challenged people are denied opportunities to work in the mining sector. Whereas the Ghana Chamber of Mines indicates that the mining sector of Ghana is an equal opportunity sector, the findings from the study revealed that the sector is biased towards the able bodied people.

Employment opportunities in the mining sector favours very educated people whose qualifications are related to the work demands in the mining sector. Rarely do uneducated people get the opportunity to work in the sector. Most of the time when they do, it is normally in the small mining companies (with most of them operating illegally). There is little or no training for unskilled people who want to work in the sector especially the large scale mining companies. Employment is sometimes not based on merits. Most of the time even among highly educated and qualified people, there is the need to 'connect' to someone in top management position, either politically, local traditional leadership or at top level management of the mining companies if one can get employment in the sector.

On the issue of mining and pollution, one of the respondents said that;

*“We can’t go into farming in this area because the chemicals used for the mining activities have led to the pollution of the land and water bodies. The few who dared to venture into it have had problems with low yields and some also have their farmlands taken over by both legal and illegal miners”.*

Mining activities have contributed to the environmental pollution of the mining communities. Chemicals that are used can be hazardous to people’s health and also lead to the pollution of farmlands. This has contributed to the displacement of farmers and house owners especially in areas with mineral deposits. Many of such people have complained of lack of accountability on the part of mining companies in paying compensations to them.

## **5.7. CONCLUSION**

This chapter presents an in-depth reflection of the findings of the study. The quality of living conditions in the Western region of Ghana is poor. Furthermore, both education and health care continues to face serious challenges in areas of quality, access and affordability. Unemployment continue to pose as a major challenge with some youth in the Western region resorting to illegal mining which ends up destroying the environment. Ghana’s mining sector continues to suffer from lack of transparency and accountability since the country’s mining and Mineral’s Act of 703 of 2006 does not address these issues. As a result, this does not ensure the judicious use of mineral revenues for human development.

## **CHAPTER SIX**

### **CONCLUSION OF THE STUDY**

#### **6.0. INTRODUCTION**

This chapter engages the human centered mineral resource governance theory and how it can apply to Ghana's situation. Despite its mineral wealth, Ghana still faces development challenges. The rent seeking government theory, the revisionist theory of natural resources and the neo-colonial dependence theories though attempts to explain the relationship between mineral resources and development, they do not explain Ghana's situation. As a result, the human centered mineral resource governance theory attempts to respond to the following research questions;

1. How can Ghana govern its mineral sector to promote transparency and accountability?
2. How can mineral rents be utilised to promote human development in Ghana?
3. In what ways can the mineral sector in Ghana be structured to promote equitable participation by Ghanaians?

Unlike the rent seeking government theory, findings from this study confirm that effective governance of mineral resources can promote socio- economic development in Ghana. In order to achieve this and respond to the above questions, the human centered mineral resource governance theory puts forward the following;

#### **6.1. LEGALIZING POLICIES TO PROMOTE TRANSPARENCY AND ACCOUNTABILITY**

Mineral resources and resource revenues can be effectively managed when the government of Ghana takes well- advised decisions. Such good decisions emerge and are sustained in an atmosphere of scrutiny and accountability, reinforced by

transparency and the availability of relevant information in the mining sector. Accordingly, the government of Ghana should legalize regulations that will promote transparency and accountability. If transparency mechanisms are introduced in the decision making chain throughout the mining cycle, it can promote government accountability to the various stakeholders in the Ghanaian mining industry. Effective accountability can be achieved through transparency, if the citizens, who are the owners of the mineral resources, are able to use the existing information to monitor to the actions of their governments. The government of Ghana should therefore establish mechanisms that will promote meaningful stakeholders engagements, systems that can monitor the use of mineral resources, and a platform where claims of negative large mining effects on the people and communities where they operate.

Besides, making information (such as revenue data, tax rates, volumes of production and taxable income) accessible to the citizens throughout the mining cycle will ensure that the government of Ghana remain accountable to its citizens as well as all the other stakeholders in the mining industry and help to promote the efficient use of mineral rents and help to reduce corruption. The lack of transparency and accountability in Ghana's mining sector has contributed greatly to the upsurge of illegal mining activities. A recent secret investigation by the Bureau of National Investigation (BNI) of Ghana, prominent actors in the country's development, including members of parliament, top politicians (from the two main political parties), top security officials, local chiefs (especially in mining areas), and opinion leaders were all mentioned as actively engaging in illegal and unregulated mining.

Currently, Ghana's Parliament is considering the passage of the Right to information bill which when passed will contribute enormously to the enhancement of transparency across all sectors. While the bill is waiting to be passed, government



can enhance transparency by disclosing mining contracts to the general public. Keeping it confidential can generate mistrust, promote conflicts and raise the expectation of the general public, especially the local mining communities.

## **6.2. INTRODUCING LAWS AND POLICIES ON THE UTILIZATION OF MINERAL REVENUES**

The current structure in Ghana where mineral revenues are treated as part of general revenues that goes into the Consolidated Fund and spent indiscriminately by the government dilutes the contribution of the mining sector in the eyes of the general public and does not ensure that mineral revenues are spent on sustainable human centered interventions for Ghana's development. As a result, the government of Ghana should introduce a Mineral Revenue Management Act, to serve as a legal framework that will determine how mineral revenues should be spent.

Moreover, since mineral resources deplete, it is prudent to invest in people centered interventions such as education, health and job creation to create sustainable returns. Consequently, for mineral resources to promote sustainable quality of life and well-being of Ghanaians, it must be human centered. Critical human centered development areas that the government of Ghana should invest mineral resources are education, health and job creation.

In the area of education, the government of Ghana should invest mineral resources in the construction of educational institutions. In particular, at the tertiary level, investments in the construction of at least two universities in each region of the country will contribute enormously in the training of professionals for the country. Technical and vocational institutions Ghana must be given face lifts and linked with the industrial sector of the country's economy. There should be training of more

teachers across the various levels of the educational ladder and the provision of incentives for teachers who accept postings to deprived communities of the country. In order that the coverage of education in Ghana can be universal, the Ghanaian government should channel resources in the provision of scholarships for needy students at all levels.

Besides this, the government of Ghana must invest mineral revenues in the construction of more health facilities and train more health personnel to cater for the current deficit in the health sector. This will help to improve access and quality healthcare health in Ghana. The National Health Insurance Scheme which is currently facing financial challenges can be supported with mineral revenues, so as to tackle the current challenge of access and affordability in the health sector of Ghana.

If mineral revenues are invested in these areas, it will help to solve the numerous challenges in the education and health sectors whilst contributing to the creation of jobs to address the current unemployment situation in Ghana.

### **6.3. ENCOURAGING ACTIVE PARTICIPATION OF STAKEHOLDERS THROUGHOUT THE MINE LIFE CYCLE**

Participatory development ensures that stakeholders are able to influence development initiatives and make contributions to decisions and resources that affect themselves.

Ghana has vibrant Civil Society Organizations (CSOs) that represents the general public. The contribution of these Civil Society Organizations in consolidating the political development in the country has been enormous. Since 1992, Ghana has held six different highly contested successful political elections every four years, with

power swinging three times between the two main political parties (New Patriotic Party, NPP and National Democratic Congress, NDC). There are both national and international CSOs in the mining sector, operating at both local and national levels. Currently, the system does not give the CSOs a more active and formal voice in the mining sector as it does in the political sector. The government of Ghana as a lead stakeholder should encourage the active inclusive involvement of the general public, through their representatives at the various levels of the mining cycle, starting from contract negotiations to how mineral revenues are spent. This will help to promote transparency and accountability. The general public will be in a better position to understand and contribute to the mining industry; such as mining life cycle, the community legal rights in the mining sector and how the Ghanaian government (both central and local) as well as local traditional leaders entrusted with mineral revenues can judiciously utilise the revenues to promote the socio- economic development of the country. This will also contribute greatly to managing the expectations of the general public, especially at the local level where mining activities are done.

Furthermore, effective stakeholders' engagement in the mining sector of Ghana can ensure that mining companies in the execution of their operations go beyond minimum legal requirements and ensure their diligence, so that they can identify, avert and mitigate against possible human rights infringements .

#### **6.4. DEVELOPING A COMPREHENSIVE LOCAL CONTENT POLICY**

The government of Ghana should link the mining sector to the broader industrial sector by increasing local procurement. This will not only help in deepening the linkages of the mining sector with other non-mining sectors but also contribute to the creation of jobs and the general expansion of the country's economy.

Non- mining sectors such as banking and insurance sector, metal works services, pumps and spares, chemicals used for mining, light manufacturing in cyanide, catering services among others can all be strategically linked to the mining sector. Investors are considerably more attracted to a very strong local industry with employees who have the requisite technical and vocational skills.

Furthermore, such proposed policy should also address employment for Ghanaian local people. Most of the youth especially in the local mining communities are unskilled with low formal education making their employment difficult. Such local content policy must be inclusively participatory by particularly identifying and empowering socially marginalized members of the Ghanaian society such as women, the physically challenged as well as unskilled people who are normally either entirely socially marginalized or subordinately included in the development process. The government of Ghana as a leading stakeholder in the mining industry, the Ghana Chamber of mines and other stakeholders should collaborate in training and building the capacities of such people so that they can take advantage of available opportunities in the mining sector.

## **6.5. DEVELOPING ALTERNATIVE LIVELIHOOD STRATEGIES**

The study revealed that mining activities have taken over farmlands and other agricultural activities leading to almost collapse of the agricultural sector in the mining communities, which over the years was the main stay of the Ghanaian economy. Consequently, the government of Ghana can consider collaborating with other stakeholders to develop alternative livelihood strategies especially in mining communities, particularly in areas of agriculture, manufacturing and other Small and Medium Scale Enterprises (SMEs).

In addition, many local communities where mining is done in Ghana are heavily dependent on the mining sector for jobs and other opportunities, creating mono-economies in many of these communities. In order to avert this problem, the government of Ghana should introduce a comprehensive development program linked with the alternative livelihood strategies to diversify the economies of local mining communities so as to create sustainable jobs and human development.

In some cases, farming lands are taken over for mining activities by mining companies in Ghana. Though some of the affected farmers get compensated, there are often complains of discontentment by these farmers. Some get discouraged from investing back into agriculture. To address this problem, the government of Ghana, using geological information, should clearly demarcate mining areas from non-mining areas and ensure strict compliance to laws regulating such demarcations to ensure strict compliance.

The government of Ghana and other stakeholders must take keen interest in training more teachers and health personnel especially in mining communities since these professions are in high demand in the country. Similarly, there should be active engagement and training of the women and the youth, especially those denied of formal education to develop their capacities and equip them with income generation skills such as to be artisans and own their businesses.

## **6.6. PROMOTING BETTER ENVIRONMENTAL STEWARDSHIP**

Mining activities in Ghana are having devastating environmental consequences in the local mining communities, such as pollution of water bodies, pollution of air, noise pollution and the destruction of farmlands. The Ghanaian government, mining companies and civil society organizations (CSOs) have critical roles to play in

preventing, mitigating and offsetting the negative impacts of mining and improve opportunities for development.

The study discovered that Ghana has comprehensive environmental laws contained in the Environment Protection Agency's (EPA) bylaws, such as regulations on who can mine, where mining should be done, and regulations on environmentally sustainable mining processes to safeguard the environment; however, sheer environmental pollution in many mining communities is still rampant. In order to avert this problem of mining, the government should strictly enforce these environment bylaws to enhance better environmental stewardship.

One way the government of Ghana can ameliorate this challenge is to introduce environmental bonds. Environmental bonds, which are financial arrangements between a regulator (in this case, the Environmental Protection Agency of Ghana) and the resource developers (mining companies), provides financial surety against the possible negative environmental effects of mining activities on the local communities. This will help government and the mining communities to reduce its risks, should the mining companies fail to comply with the legal environmental bylaws.

Perhaps, one of the biggest potential of environmental pollution in the mining sector is the management of liquid and solid wastes. The ineffective management of mineral wastes can create perpetual source of pollution. The government of Ghana should encourage mining companies and its association bodies (in particular, the Ghana Chamber of Mines) to research into new technologies and strategies for improved management of mineral wastes.

In summary, the current minerals and mining Act (703) of 2006, is the main framework which regulates the mining sector of Ghana and clearly indicates how the mineral revenues should be shared. Conspicuously missing from the minerals and mining Act (703) of 2006 are good governance issues; however, introducing sound governance policies in the mining sector is one surest way to promote human development. This is because good governance is likely to enhancing effective and efficient use of mineral revenues and is more likely to ensure that Ghanaians benefit from the mineral resources.

Pertinent issues of transparency, accountability, inclusive participation and sustainable development are needed if the mining sector can respond to the current human development challenges Ghana faces.

Legalizing policies to promote transparency, integrating mining into national development and poverty reduction strategies whilst prioritizing issues of education, health and job creation are particularly important steps to ensure that Ghana beats the resource curse. This is the surest way mineral resources can promote people centered development in Ghana.

## **6.7. FURTHER RESEARCH**

This study seeks to investigate how mineral resources can be governed to promote human centered development in Ghana. It situates the reason why mineral resource revenues are used irresponsibly to the detriment of pro poor development to the lack of sound mineral governance policies. However, there are two very important areas for further research.

Firstly, the study observed that some hold the view that the environmental cost, and the destruction of livelihood cost of mining in Ghana, far outweighs the economic and social benefits that the mining sector brings to the local mining communities in particular and the country as a whole. Indeed, this is a researchable area which can contribute to knowledge in the field.

Secondly, mineral wastes, perhaps pose the biggest environment pollution threat to mining communities. Mining companies are still grappling with new technologies and strategies to manage mineral wastes. Further studies in this area will contribute enormously to effective mineral waste management that can promote better environmental stewardship.



## REFERENCES

- Acemoglu, Daron; Johnson, Simon; and Robinson, James 2002. *An Africa's Success story: Botswana*. CEPR Discussion Paper No. 3219.
- Acosta, Mejia A. 2010. *Natural Resource Governance Review of impact and Effectiveness of Transparency and Accountability Initiatives*. Institute of Development Studies, University of Sussex.
- Adimazoya, T.N. 2013. *Staying Ahead of the Curve: Meeting Ghana's Commitment To Good Governance in the Mining Sector*. *Journal of Energy and Natural Resource Law*, Vol. 31:2, pp. 147-170.
- Addy, S.N. 1999. *Ghana revival of the mineral sector*. *Resource Policy*, Vol 24 (4), pp. 229- 239.
- AEO (African Economic Outlook). 2013. *Structural Transformation and Natural Resources*. Tunis: African Development Bank, Development Centre of the Organization for Economic Commission for Africa. ISBN 978-92-64-20054-8 (PDF), DOI., <http://dx.doi.org/1.0.1787/aeo-2016-en>
- Ahammad, Helal and Clements, Kenneth, 1999. *What Does Minerals Growth Mean to Western Australia?* *Resources Policy*, Vol. 25, pp. 1-14.
- Andre Gunder Frank. 1967. *Capitalism and Underdevelopment*. New York: Monthly Review Press.
- Anim, T.E. 1994. *Gold in Ghana*. 4<sup>th</sup> edition. Selwyn Publishers: Accra.
- Akabzaa, T. and Darimani, A. 2001. *Impact of mining sector investment in Ghana: A study of the Tarkwa mining region*. Draft Report prepared for SAPRI.
- Alkire, S., Conconi, A. and Seth, S. 2014. *Multidimensional Poverty Index 2014: Brief Methodological Note and Results*. University of Oxford. Oxford.
- Alkire, S. 2007. *The Missing Dimensions of Poverty Data: Introduction to Special Issue*. *Oxford Development Studies*. Vol. 35: 4, pp. 347-359.
- Atsushi, I. 2007. *Escaping from the Resource Curse: Evidence From Botswana and the Rest of the world*. *IMF Staff Papers*, 663-699.
- Aryee, B.N.A. 2000. *Ghana as a Gold producer – the prospects*. Speech presented at Investing in Africa Mining Conference INDABA 2000, Cape Town, South Africa.
- Aryee, B.N.A and Aboagye, J.Y, 1997. *Overview of Ghana's minerals mining sector: Past Present*. Presented at Mime consult Seminar.

- Auty, R.M. 2007. *Rent Cycling theory, the Resource curse and Development Policy: From Curse to Cures, A practical Perspectives on Remedying the Resource. Curse* Developing Alternatives: Alternatives: Washington.
- Auty, R.M. 2006. *Mining Enclave to Economic Catalyst: Large Mineral Projects in Developing Countries* . Brown Journal of World Affairs 13 (1).
- Auty, Richard M. 2001. *The Political Economy of Resource-Driven Growth*, European Economic Review, Vol. 45, Nos. 4-6, pp. 839-846 .
- Auty, R.M. 1990. *Resource- Based Industrialization: Sowing the oil Eight Development Countries*, New York: Oxford University Press.
- Babbie, E and Mouton, J. 2005. *The Practice of Social Research*, California, Wadsworth Publishing Company.
- Baldwin, R.E. 1956. *Patterns of Development in Newly Settled Regions*. Manchester School of Social and Economic Studies 24 (2): 161-179.
- Bardt, H. 2005. Rohstoffreichtum – Fluch oder Segen? Online <[http: www.giga- /download.php.d=/content/publicationen/pdf/wp01\\_basedu.pdf](http://www.giga-download.php.d=/content/publicationen/pdf/wp01_basedu.pdf)>(9.08.2015 hamburg/dl
- Beck, M. 2007. *Der Rentierstaats- Ansatz und das Problem abweichender Falle*, in Zeitschrift für internationale Beziehungen, 14, 1, 43-70.
- Beaven, D.L, Collier P. and Gunning. 1987. *Consequences of a commodity Boom in a Economy. Accumulation and Redistribution in Kenya 1975-83*. World Bank Economic Review 1(3): 489- 513.
- Bentsi- Enchill, K. 1986. *Colonial land Policy in Ghana, 1874-1962* with special Reference to the mining sector of the economy, unpublished manuscript.
- Bell, J. 1997. *Doing your Research Project: A guide first time Researchers in Education and social science*, London, Open University Press.
- Bermudez- Lugo, Omayra. 2013. *The Mineral industry of Ghana. 2011 Minerals Yearbook*. US Geological Survey: US Department of the Interior.
- Blanche, M.T. et. al. 2006. *Research in Practice, Applied Methods for the Social Science*, 2<sup>nd</sup> Edition, Cape Town, South Africa, University of Cape Town Press.
- Bless, C and Smith, C.H. 1995. *Fundamentals of Social Research methods: An African Perspective*, 2<sup>nd</sup> Edition South Africa.
- Bloch, R. and G. Owusu. 2012. *Linkages in Ghana's global mining industry: challenging the enclave thesis*. Resources Policy University of Cape Town and the Open University. MMCP Discussion Paper.

- Boachie – Danquah, N. 2011. *Reducing Corruption at the Local Government Level In Ghana, Decentralization in Ghana*. Commonwealth Secretariat, London.
- Boateng, K. et al. 1961. *Report of the Commission of Enquiry into Concessions*, Ghana Government Printer, Accra.
- Bogdan, R.C and Biklen, S.K. 1984. *Qualitative Research for Education: An introduction to theory and methods*, Boston, Allyn and Bacon.
- Brunnschweiler, C. N. and E. H. Bulte. 2008. *The resource curse Revisited and revised: A tale of paradoxes and red herrings*. *Journal of environmental economics and management* 55: 248-264.
- Buur, Lars et al. 2013. *Extractive Natural Resource Development: Governance: Linkages and Aid*. Danish Institute for International Studies (DIIS) Report. Copenhagen: DIIS.
- Carmody, P. 2011. *The new scramble for Africa*. Cambridge: Polity Press.
- Cashin, P. and McDermott. 2001. *The Long- Run Behaviour of Commodity Prices: Small Trends Big Variability*. IMF Working Paper, Washington: IMF.
- Cohen, L, Manion, L. and Morrison, K. 2000. *Research Methods in Education*, 5<sup>th</sup> Edition, London, Routledge/ Falmer Press.
- Collier, Paul and Anke Hoeffler. 2015. *Democracy and Resource Rents*. Global Poverty Research Group.
- Collier, P. et al. 2000. *Greed and Grievance in Civil War*. World Bank Policy Research Working Paper No. 2355.
- Corden, P. and Anke H. 2004. *Greed and Governance in Civil War*, Oxford Economics Papers, Vol 56, No. 563- 596.
- Creswell, John.W. 2010. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. United States of America: Sage Publications, Inc.
- Crewswell, J.W and Plano Clark , V. 2007. *Designing and Conducting mixed methods Research*, Thousand Oaks, C.A Sage Publication.
- Crewswell, J.W. 2003. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*, 2<sup>nd</sup> Edition. London, Sage Publication.
- Crow, T.W and Plano Clark, V. 2007. *Working Knowledge: How Organizations Manage what they know*, Boston, Harvard Business School Press.
- Crowl, T.K.1996. *Fundamental of Education Research*, 2<sup>nd</sup> Edition, Boston, McGraw-Hill.

- DANIDA. 1999. *Evaluation Guidelines*. Copenhagen, Denmark: Ministry of Foreign Affairs.
- Davis, Jeffery, Rolamdo Oaaowski, James Daniel and Steven Barnett. 2001. "Oil Funds: Problems Posing as Solutions? IMF. Finance & Development 38(4):1-6.
- Davis, Graham .1998. *The Minerals Sector, Sectoral Analysis, and Economic, Development Resources Policy*, Vol. 24, No. 4, p.p. 217-228.
- Davis, Graham and Tilton, John E. 2002. *Should Developing Countries Renounce Mining? Perspective on the Debate*. Denver, Colorado: Colorado School of Mines.
- Debrah, E, 2009. *The Economy of Regime Change in Ghana, 1992-2004*. Ghana Social Science Journal. Vol. 5&6 (1&2), pp. 84-113.
- De Vos, A.S et. Al. 2011. *Research at Grass Roots: For the Social Sciences and Human Service Professions: 4<sup>th</sup> edition*. Pretoria: Van Schaik Publishers.
- Denzin, N.K and Lincoln, N.L.1994. *Handbook of Qualitative research*, London Sage.
- Dode, O. Robert. 2012. *Nigeria Mono Product Economy and Global Economic Recession Problems and Prospects*. Global Journals Inc. Vol.12 issue 11.
- Dovers. S. 2005. *Environment and Sustainable Policy: Creation, Implementation, Evaluation*. Sydney: The Federation Press.
- EITI Report .2016. 2015. *Extractive Industry Transparency Initiative Annual Report* Ministry of Finance, Accra.
- Fidel, R. 2008. *Are we there yet? Mixed methods research in library and information science*, library and information science research , Vol. 30: pp. 265-272.
- Garrad, T.F. 1989.*Gold of Africa: Jewellery and Ornaments from Ghana, Cote d' Ivoire, Mali and Senegal in the collection*, the Barbie- Mueller Museum, Prestel, Munich.
- Gary Ian .2009. *Ghana's biggest test: oil's challenge to democratic development*. Oxfarm America.
- Gelb, A. 1998. *Oil Windfalls: Blessing or curse?* Oxford: Oxford University Press.
- Ghana Education Service .2015. Takwa Nsuaem District Education Office, Takwa.
- Ghana Health Directorate .2015. Takwa Nsuaem District Health Directorate, Takwa.
- Ghana Statistical Service .2015. *Ghana Demographic and Health Survey, GSS*, Accra.

- Ghana Statistical Service .2013. *Population census Report*, GSS, Accra.
- Ghana Statistical Service .2013. *Population census Report for the Western Region*, GSS, Accra.
- Goodland, R .2002. *How to Ensure Extractive Industries Reduce Poverty and Promote Sustainable Development* (Discussion paper commissioned by EIR), [www.eireview.org](http://www.eireview.org)
- Grahan, R.1982. *The aluminium industry and the third world: Multinational Corporations and underdevelopment*. Zed Press, London.
- Gray, D. 2006. *Doing Research in the real world*, London, Sage Publication.
- Greene, J.C. and Caracelli, V.J. 1989. *Towards a Conceptual Framework for mixed method evaluation designs*. Education Evaluation and Policy Analysis, 11(3) 255-274.
- Gylfason Thoraldar. 2001. *Natural Resources and Economic Growth: What is the Connection?* CESifo Working Paper No. 530.
- Harvey, R .2015. *Fossil Fuels are Dead, Long Live Fossil Fuels: Botswana's options for economic diversification*. Research Report 20, Governance of Africa's Resources: South African Institute of International Affairs (SAIIA).
- Hilson, G. 2002. *Harvesting mineral riches: 1000 years of gold mining in Ghana*. Elsevier Science limited, London.
- Hilson, G. and Gorforth C. 2013. *Everyone Now is Concentrating on the Mining: Drivers and Implications of Rural Economic Transition in the Eastern Region of Ghana*. Journal of Development Studies, 49(3): 348-364.
- Humphreys, D. 2010. *Minerals: Industry history and fault lines of conflict*. POLINARES working Paper number 4.
- Hennink M.,Hutter I.,Bailey. A. 2011. *Qualitative Research Methods*, London: Sage Publications Ltd.
- Howard, K. and Sharp, J.K. 1983. *The Management of a student Research Project*, Hampshire, Grower Publishing Company.
- IMF. 2012. *Ghana Poverty Reduction Strategy Paper*. International Monetary Fund. Washington DC.
- International Council on Mining and Metals. 2015. *Report on Mining in Ghana- What Future can we expect?* Mining Partnership for Development. ICMM, London
- Jensen, N and Wantchekon, L. 2004. *Resource Wealth and Political Regimes in Africa*, Comparative Political studies, 37:7, 816-841.

- Johnson, I. 1997. *Redefining the Concept of Governance*. Canadian International Development Agency, Political and Social Science Division.
- Jonah, S.E. 1987. *The impact of the economic Recovery Programme on the mining Industry in Ghana*. In proceedings of a seminar on the mineral sector in Ghana. Minerals Commission, Accra.
- Jones, S. 2008. *Sub-Saharan African and the "Resource curse" Limitations of the Conventional wisdom*. Copenhagen: Danish Institute for International Studies.
- Kalof, L. Dan A., Dietz, T. 2008. *Essentials of Social Research*. Berkshire: Open University Press.
- Karl, T. 1997. *The Paradox of Plenty: Oil Booms and Petro- States*. Berkeley: University of California Press.
- Kauzya. J. M. 2003. *Local Governance Capacity Building for Full-Range Participation: Concepts, Frameworks and Experience in African Countries*, United Nation: New York.
- Kesse, G.O. 1985. *The Mineral and Rock Resources of Ghana*. Minerals, Commission Accra.
- KPMG International Corporation. 2014. Ghana Country Mining Guide. KPMG International.
- Kronenburg, T. 2004. *The curse of natural resources in the transition economies*, Economies of Transition, 123, 339-426.
- Kaufmann, Daniel, Aart Kraay and Massimo Mastruzzi. 2006. *Governance Matter V: Aggregate and Individual Governance Indicators for 1996-2005*. World Bank Policy Research Working Paper NO.4012. Washington, D.C. World Bank.
- Kumar, R. 2005. *Research Methodology: A step by step guide for beginners*, London, Sage.
- Leedy, P.D. and Ormrod, J.E .2003. *Practical Research Planning and Design*, 7<sup>th</sup> Edition , New Jersey, Prentice Hall.
- Layder, D. 1993. *New Strategies in Social Research*, Cambridge, Polity Press.
- Laesen, S. 2006. *Benefit Streams of mining in Tanzania : Case Studies from Geita and Mererani*. Bergen, Norway: chr. Michelsen Institiute.
- Le Billion, Phillipe .2001. *The Political Eology of war. National Resources and Armed Conflict*, Political Geography 20, 5, pp. 561-584.

- Leite, C. and Weidmann, Jens – 2002. *Does Mother Nature Corrupt? Natural Resources, Corruption and Economic Growth. In Governance Corruption and Economic Performance*, eds Washington, DC: International Monetary Fund.
- Lockwood et.al .2010. *Governance Principles for Natural Resource Management* Unpublished manuscript.
- Lokina, R. and Leiman, A. 2014. *Managing Resources for Sustainable Growth and Human Development in Tanzania. The case of extractive industry*. Dares Salaam: The Economic and Social Research Foundation (ESRF).
- McMahon, G. and Tracy, B. 2012. *Firm and Sector-Level Mining Benefits in Zambia*. Oil Gas and Mining (SEGOM) Publication May 2012. Washington, D. C.: The World Bank.
- McMillan, J.H. 1996. *Introduction to Research in Education: A conceptual Introduction*, Chicago, Harper Collins Publishers.
- Mehlum, H; Moene K. and Torvik R. 2006. *Institutions and the Resource Curse*, the Economic Journal, 116, 1-120.
- Meissner H. 2010. *The Resource Curse and Rentier State in the Caspian Region. A need for Context Analysis*. German Institute of Global and Area Studies Working Papers: Hamburg GICA.
- Minerals Commission. 2010. *Annual Report for 2009*. Ghana Minerals Commission, Accra.
- Minerals and Mining Act 703. 2006. Minerals Commission of Ghana, Accra.
- Ministry of Finance and Economic Planning (GHEITI). 2010. *Report on the Aggregation /Reconciliation of Mining Sector Payments and Receipts:2004-2008*: Ministry of Finance and Economic Planning.
- Mikesell, Raymond F. 1997. *Explaining the Resource Course, with Special Reference to Mineral Exporting Countries*, Resources Policy, Vol. 23, No. 4 pp. 191-199
- Mikkelsen, B. (2005). *Methods for development work and research: a new guide for practitioners*. Sage Publications.
- Monette, D.R et. al.1990. *Applied Social Research: Tool for Human Service*, 2<sup>nd</sup> Edition, Northern Michigan University Press, U.S.A.
- Morris, M. R. Kaplinsky and D. Kaplan. 2011a. *One thing Leads to Another- Commodities Linkages and Industrial Development- A Conceptual Overview*, MMCP Discussion Paper. Milton Keynes and Cape Town, The Open University and University of Cape Town.

- Morse, J.M. 1991. *Approaches to qualitative- quantitative methodological triangulation*. Nursing Research, 40(1) 120- 123.
- Moss, T. and Young, L. 2009. *Saving Ghana from its oil: The case for Direct Cash Distribution*. Centre for Global Development Working Paper 186: Washington.
- Near, J. Peter and Wijnbergen V. 1986. *Natural Resources and the Macro economy*, Cambridge: MIT Press.
- Neuman, William Lawrence. 2011. *Social Research Methods: Qualitative and Quantitative Approaches*. 7<sup>th</sup> Edition. London: Pearson.
- Newman and Benz. 1998. *Qualitative, Quantitative Research Methodology: Exploring the interactive continuum*. Southern Illinois University, U.S.A.
- Nkrumah, Kwame. 1965. *Neo- Colonialism: The last stage of Imperialism*. New York: International Publishers.
- Nukunya, G.K .2003 *Traditions and Change in Ghana: An Introduction to Sociology*. (Second Ed) Ghana Universities Press, Accra.
- Nylandsted, M., Yankson P. and Fold N. 2009. *Does FDI Create Linkages in Mining? The Case of Gold Mining in Ghana*. In E. Rugraff, D. Sanchez-Ancohea and A. Summer, : *Transnational Corporations and Development Policy*, London: Palgrave. Pp. 247-273.
- OECD/DAC, 1995. *Participatory Development and Good Governance*, Development Cooperation Guidelines Series.
- O'Leary, Z .2004. *The essential guide to doing research*. Sage.
- Patton, M. 1990. *Qualitative Evaluation and Research methods*. California, Sage Publications.
- Pedro, Antonio M.A. 2005. *Mainstreaming Mineral Wealth in Growth and Poverty Reduction Strategies: Sustainable Development*. Addis Ababa: Economic Commission for Africa.
- Pedro, V. 2009. *Does oil corrupt? Evidence from a Natural Experience in West Africa*. Journal of Development Economics.
- Pegg, S. 2006. *Mining and poverty reduction: Transformation rhetoric into reality*. Journal of Cleaner Production, Vol.14, pp. 376-387.
- Prebisch, R. 1950. *The Economic Development of Latin America and its Principles Problems*, United Nations: New York.



- Raines, P. Turok, I. and Brown R. 2001. *Growing Global: Foreign Direct Investment and the Internationalization of Local Suppliers in Scotland*. *European Planning Studies*, 9(8):965-78.
- Ross, Michael L .2002. *Comments on Treasure or Trouble? Mining in Developing Countries*. UCLA :Department of Political Science.
- Ross, Micheal L.2001. *Does oil Hinder Democracy?* In *World Politics*, 53, 325- 361.
- Ross, Micheal L . 1999. *The Political Economy of the Resource Curse*, *World Politics*, 51, 2, 297-322.
- Rosser, A. 2006. *The Political Economy of the Resource Curse: A literature survey*, online <[http://www2.ids.ac.uk/gdr/cfs/pdfs/wp\\_268.pdf](http://www2.ids.ac.uk/gdr/cfs/pdfs/wp_268.pdf)> (4.10.2015).
- Rozner, Steve and Gallagher Mark. 2007. *Tools for Treating the Resource Curse From Curse to Cures: Practical Perspectives on Remediating the Resource Curse*. Developing Alternatives (DAI): Washington.
- Sabramanian, Arvind, and Sala-i-Martin, Xavier, 2003. *Addressing the National Resource Curse. An Illustration from Nigeria*, NBER Working Paper Series (9804).
- Sachs J.D and Warner Andrew M.2001. *Natural Resources and Economic Development: The curse of Natural Resources*. Harvard University Centre for International Development and Harvard Institute for International Development.
- Sachs, J. D. and Warner, A .1997. *Natural Resource Abundance and Economic Growth*, Development Discussion Paper No. 517a, Harvard Institute for International Development, Harvard University: Cambridge, MA.
- Sala-i- Martin, X and Subramanian, A. 2003. *Addressing the Natural Resource Curse: An illustration from Nigeria*, IMF Working Paper, no. WP/03/139, International Monetary Fund.
- Sen, Amartya. 1999. *Development as freedom*. Knopf Doubleday Publication Group, Boston.
- Schneider, Aarm, V. Lledo and Mick Moore. 2004. *Social Contracts, Fiscal Pacts and Tax Reforms in Latin America*. Paper presented for the Inter-American Development Bank. Brighton, U.K. Institute of Development Studies.
- Shultz, Jim. 2005. *Follow the Money: A Guide to Monitoring Budgets and Oil and Gas Revenues*. Open Society Institute. Budapest Central European University Press.

- Siegle, Joseph. 2004. *Developing Democracy: Democratizers 'Surprisingly Bright Development Record*. Harvard International Review 26(2), Summer.
- Simon, S .2011. *The advantages of IBM SPSS software*. Newsletter Available at: <http://www.pmean.com/news>. [Accessed on: 14-04-2015].
- Singer, Hans W. 1950. *The Distribution of Trade between investing and Borrowing Countries*, American Economic Review, 473-485.
- Songsore, J, Yankson, P.W.K, Tsikata, G.K. 1994. *Mining and the Environment: Towards a win – win strategy*. A study of the Tarkwa- Aboso- Nsuta Mining Complex in Ghana. Minerals Commission, Accra.
- Sotirios, S. 1998. *The Palgrave Macmillan Social Research*, 4<sup>th</sup> New York. Palgrave Macmillan.
- Standing, A. 2004. *Ghana's Extractive Industries and Commodity Benefits Sharing: The case for cash transfers*. Resource Policy, Vol. 40, pp. 74-82.
- Steward, A. J and Shields, S.A. 2001. *Gatekeepers and Change agents*. in D.L Tolman & M. Brydon- Miller (Eds). From subjects to subjective. New York University Press.
- Tashakkori, A. and Teddie, C. (Eds), 2008. *Hand book of mixed methods in the social and behavioural sciences*, Canada: Thousand Oaks, Sage.
- Therkildsen, O. and F. Bourguoin. 2012. *Continuity and Change in Tanzania's ruling coalition: Legacies, crises and weak productive capacity*. DIIS Working Paper 2012:06.
- Todaro, P. Micheal and Smith C. Micheal. 2011. *Economic Development*. 11<sup>th</sup> edition. Harlow: Pearson Education Limited.
- Tollison, R.D. 1982. *Rent Seeking: A survey* *kyklos* 35(4): 575- 602.
- Tsikata, F.S.1997. *The vicissitude of the mineral policies in Ghana*. Elsevier Science Ltd: Great Britain.
- Tuckman, B. W. 1997. *Conducting Educational Research*. Harcakt Brace Press, New York.
- UNCTAD. 2013. *Commodities and Development Report 2013- Global Value Chain: Investment and Trade for Development*. United Nations Publication.
- United Nations Development Program. 2014. *Human Development Report, Sustaining Human Progress- Reducing Vunerabilities and Building Resilience. Explanatory Notes on the 2014 Human Development Report Composite indices*, Ghana: UNDP.

- United Nations .2008. *Principles and recommendations for population and Housing Census, Revision 2*. New York: Department of Economics and Social Affairs, Statistics Division, United Nations.
- UNDP .2011. *Human Development Report, Sustainability and equity: A better future for all*. Palgrave Macmillan, New York.
- UNDP. 2004. *Governance for Sustainable Human Development*. A UNDP Policy document. UNDP. New York.
- UNECA. 2013. *Making the Most of African's Commodities: Industrialization for Growth, Jobs and Economic Transformation*. Economic Report on Africa. Addis Ababa. United Nations Economic Commission for Africa.
- UNEP. 2013. *Governance for Peace over Natural Resources: A review of transitions in environmental governance across Africa as a resource for peace building and environmental management in Sudan*. Nairobi: UNEP (United Nations Environmental Programme).
- Usher, V. 2013. *The Management and use of Natural Resources and their Potential For Economic and Social Development in the Mediterranean*, IAI Working Papers Vol. 13, No. 2280- 4331.
- Wijnbergen, Sweder V. 1984. *The Dutch Disease: A Disease After All?* Economics Journal, Vol. 94, No.563-596 No. 373 (March), p.41-55.
- World Bank, *Operations Evaluations Department Project Performance Assessment Report, Ghana Mining Sector Rehabilitation Project (Credit 1921- GH) and Mining Sector Development and Environment Project (credit 2743- GH)*, July 1, 2003.
- World Bank . 2014. *Project Performance Assessment Report*, Washington DC, World Bank.
- World Commission on Environment and Development. 1987. *The Brundtland Commission Report*. UN.
- Wunsch, J. S. 2000. *Refounding the African State and Local Self – Governance: the Neglected Foundation*. The Journal of Modern African Studies, 38(3), 487-509.
- Yankson, W.K. 2010. *Gold Mining and Corporate Social responsibility in the Wassa West District: Ghana*. Development in Practice, Vol. 20:3, pp.354- 366.

## Appendix 1: Questionnaire for heads of households



University of Fort Hare

*Together in Excellence*

Felix Danso

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### QUESTIONNAIRE FOR HEADS OF HOUSEHOLDS IN THE WESTERN REGION OF GHANA.

MINERAL GOVERNANCE AND HUMAN DEVELOPMENT: THE CASE OF WESTERN GHANA.

I am a PhD student of the University of Fort Hare, South Africa. Kindly respond to this questionnaire as honest as you can. Do not write your name. This is purely academic research that regards your anonymity as very important. Results of this study will only be used for academic purposes and you are requested to suppress any politically motivated sentiments in your response. Time allowing, I will share with you the results of this study. All information will be treated in complete confidence and the success of this study depends on your cooperation. Kindly tick [✓] or write your responses in the box or space provided after each question.

**Please Tick [✓] or write your response where appropriate.**

#### A. HOUSEHOLD DEMOGRAPHIC INFORMATION

1. Sex

Male	Female
------	--------

2. Age

18-30 years	31-45years	46-60 years	61-75years	Above 75years
-------------	------------	-------------	------------	---------------

3. Marital status

Married	Single	Divorced	Separated	Widowed
---------	--------	----------	-----------	---------

4. Type of marriage

Civil marriage	Registered customary marriage	Unregistered customary marriage
----------------	-------------------------------	---------------------------------

5. Religion

Christian	Moslem	Traditional	Other ( <i>Please specify</i> )
-----------	--------	-------------	---------------------------------

6. Who is the head of this household?

Husband	Wife	Son	Daughter	Brother	Uncle	Others
---------	------	-----	----------	---------	-------	--------

7. Level of education

No formal education	Primary	JHS/JSS Middle School	Secondary	Tertiary	Other ( <i>Please specify</i> )
---------------------	---------	-----------------------	-----------	----------	---------------------------------

8. What is the size of your household?

	Adults	Children
Male		
Female		

9. What is your main source of income?

Farming	Pension	Remittances	Government	Self-job	Others ( <i>Please specify</i> )
---------	---------	-------------	------------	----------	----------------------------------

10. What is your main occupation?

Professional/technical/ Managerial	Sales/ Services	Agriculture	Manual worker	Unemployed	Pensioner	Others ( <i>Please specify</i> )
---------------------------------------	--------------------	-------------	------------------	------------	-----------	----------------------------------

11. Income per annum (Ghana cedis)

Below 2,500	2,500- ,3500	3,501-4,500	4,501-5,500	Above 5,500
-------------	--------------	-------------	-------------	-------------

## B. HOUSING CHARACTERISTICS AND WELLBEING OF HOUSEHOLD MEMBERS

1. What type of house do you live in?

Separate Housing	Semi-Detached Housing	Compound Housing	Kiosk/Container/improvised Home	Uncompleted building	Others (Please specify)
------------------	-----------------------	------------------	---------------------------------	----------------------	-------------------------

2. How many room (s) does this household occupy? ..... (Count living rooms, bedrooms and dining rooms but not bathrooms, toilets, kitchen and store rooms.)

3. What is your present occupancy status?

Owner- occupier	Renting	Rent free	Perching	Others (Please specify)
-----------------	---------	-----------	----------	-------------------------

4. Are you connected to the national electricity grid?

Yes	No
-----	----

5. What is the main source of lighting for your household after sunset?

Electricity (mains)	Kerosene	Gas lamp	Solar energy	Candles/torches	No light	Others (Please specify)
---------------------	----------	----------	--------------	-----------------	----------	-------------------------

6. Do you have portable water in your home?

Yes	No
-----	----

7. If response to *question 4* is Electricity, how regular is your main power supply after sunset

Regular	Cut once or twice in a week	Cut more than twice a week	Others (Please specify)
---------	-----------------------------	----------------------------	-------------------------

8. Do you have street lights in your community?

Yes	No
-----	----

9. If yes to question 8 above, are you satisfied with the street light?

Yes	No
-----	----

10. What is the main source of energy used by the household for cooking? (Tick as many as may apply)

Electricity	Charcoal	Kerosene	Gas/LPG	Wood	Others (Please specify)
-------------	----------	----------	---------	------	-------------------------

11. What is the main type of toilet facility used by the household?

In- house flush toilet/ WC	In- house pit latrines	In- house KVIP	Public toilet (flush/ KVIP/WC)	Toilet in another house	No toilet facility	Others (Please specify)
----------------------------	------------------------	----------------	--------------------------------	-------------------------	--------------------	-------------------------

12. What is the main source of water supply for this household? (Tick as many as may apply)

Inside stand pipe	Pipe in neighbouring house	Water vending /tanker services	Bore hole	Well	River/ stream	Others (Please specify)
-------------------	----------------------------	--------------------------------	-----------	------	---------------	-------------------------

13. How does your household dispose refuse? (Tick as many as may apply)

Collected for a fee	Public dump	Burned by household	Buried by household	Others (Please specify)
---------------------	-------------	---------------------	---------------------	-------------------------

14. Has mining led to any of the following?

1.	Destruction of water bodies in the community?	Yes	No
2.	Displacement of farmlands in the community?	Yes	No
3.	Pollution of air in the community?	Yes	No
	Others ( <i>Please specify</i> )		

### C. EDUCATION AND HUMAN CAPITAL FORMATION

1. Have mining activities and the revenues from mining contributed to the construction of schools in this area?

Yes	No
-----	----

2. Explain your response

.....

3. If yes to *question 2* above, indicate the number of schools constructed in the community through mining revenues and activities in the past 20 years.

1-5	6-10	11-15	15 and above
Others ( <i>Please specify</i> )		Not aware	

4. What types of schools are there in this community? (*Tick as many as may apply*)

Nursery/ Day care Primary school	Junior Secondary school (JSS)	Senior High School (SHS)/Technical schools	Tertiary institutions Universities/Polytechnics/ Training Colleges
Others ( <i>Please specify</i> )			

5. Who finances the schools in this community? (*Tick as many as may apply*)

Public	Private individuals	The community	Mining companies
Faith based organizations	NGOs	Others ( <i>Please specify</i> )	

6. How would you rank children enrolment at the basic (Day care/Primary and JSS schools) level in the community?

Very high	High	Low	Very low
-----------	------	-----	----------

7. How would you rank students' enrolment at the Senior Secondary/Technical/Vocational School level in the community?

Very high	High	Low	Very low
-----------	------	-----	----------

8. How would you rank students' enrolment at the tertiary (Universities/ Polytechnics/ Training colleges/Nursing and other Health Colleges) level in the community?

Very high	High	Low	Very low
-----------	------	-----	----------

9. Are parents able to afford the cost of basic education in the community?

Yes	No
-----	----

10. Explain your response

.....

11. Are there children of school going ages in your household?

Yes	No
-----	----

12. Are they all in school?

Yes	No
-----	----

13. Are you able to afford the cost of their schooling?

Yes	No
-----	----

14. Explain your response

.....

15. Are parents able to afford the cost of tertiary education in the community?

Yes	No
-----	----

16. Explain your response

.....

17. Are there technical and vocational institutions and training centres in the community?

Yes	No
-----	----

18. Are there enough trained teachers teaching in the community?

Yes	No
-----	----

19. Do you think the trained teachers are many enough to teach the number of children in the community?

Yes	No
-----	----

20. Explain your response

.....

21. How would you rate the performance of students in the Basic Education Certification Examination (BECE) in the community?

Excellent	Very Good	Good	Poor	Very poor
-----------	-----------	------	------	-----------

22. Do you think mining activities and mining revenues have contributed to improving the literacy rate among the people in the community?

Yes	No
-----	----

23. Explain your response

.....

#### D. ACCESS TO MEDICAL CARE

1. What do you think is the average age at which people in the community live?

.....

2. How would you rate death among children below five years in the community?

aVery high	High	Low	Very low
------------	------	-----	----------

3. Is there a medical care system by the mining companies in the communities?

Yes	No
-----	----

4. How many hospitals are there in this community?.

1-5	6-10	11-15	15 and above
Others (Please specify)		Not aware	

5. What are the different types of Health facilities in the community? (Tick as many as may apply)

Community-Based Health Planning Services (CHPS)	Clinics	Polyclinics	Hospitals
Others (Please specify)		Not aware	

6. Who owns most of the health facilities in the community? *(Tick as many as may apply)*

Government	Private individuals	The community	Mining companies
Faith based organizations	Others <i>(Please specify)</i>		

7. How would you rate people's access to health facilities in the community?

Very high	High	Low	Very low
-----------	------	-----	----------

8. Explain your response

.....

9. Are people able to afford the cost of health care in the various health facilities in this community?

Yes	No
-----	----

10. Explain your response

.....

11. Are there enough trained Doctors and Nurses in the various health facilities in the community?

Yes	No
-----	----

12. Do you think the trained Doctors and Nurses are many enough to work in these health facilities and take care of the number of people in the community?

Yes	No
-----	----

13. Explain your response

.....

14. Have mining companies in the community contributed to improved health care?

Yes	No
-----	----

15. Explain your response

.....

**E. OPPORTUNITIES FOR JOBS AND SKILLED LABOUR FORCE**

1. What is the main occupation of the people in this community? *(Tick as many as may apply)*

Farming	Trading	Fishing	Mining	Others <i>(Please specify)</i>
---------	---------	---------	--------	--------------------------------

2. Do you agree that the mining sector in this community has attracted more people and investments making the other occupations to suffer in the community?

Yes	No
-----	----

3. Explain your answer

.....

4. How would you rate unemployment in this community?

Very high	High	Low	Very low
-----------	------	-----	----------

5. Has mining in this community contributed to the employment of some community members into **highly skilled jobs** in the mining companies?

Yes	No
-----	----

6. Explain your response

.....

7. Has mining in this community contributed to the employment of community members into **unskilled labour intensive jobs** in and outside the mining companies?

Yes	No
-----	----



8. Explain your response

.....

9. Mining companies in this community make a lot of profit while the community remain poor?

Strongly agree	Agree	Disagree	Strongly disagree
----------------	-------	----------	-------------------

10. Explain your response

.....

11. Would this community have been better off in general development without mining operations?

Yes	No
-----	----

12. Explain your answer

.....

13. What can be done to ensure that mining communities such as yours benefit from general development?

Establishing Mining Community Development Fund	Enacting mineral revenue management law	Moving towards State ownership of mining companies	Others ( <i>Please specify</i> )
--	---	--	----------------------------------

## F. TRANSPARENCY AND ACCOUNTABILITY

1. Is this community rich in mineral resources?

Yes	No
-----	----

2. What are some of the mineral resources found in this community?

Gold	Diamond	Bauxite	Manganese	Others ( <i>Please specify</i> )
------	---------	---------	-----------	----------------------------------

3. Do you think mineral resources have a role to play in the development of this community and Ghana as a whole?

Yes	No
-----	----

4. Explain your response

.....

5. Are mining revenues used responsibly to benefit you and other members of your family?

Yes	No
-----	----

6. Explain your response

.....

7. Who owns the mineral resources in this community? (*Tick as many as may apply*)

Government of Ghana	The people of Ghana	Mineral Companies	Traditional leaders
Others ( <i>Please specify</i> )			

8. Who controls the mineral resources in this community? (*Tick as many as may apply*)

Government of Ghana	The people in the community	Mineral Companies	Traditional leaders
Others ( <i>Please specify</i> )			

9. Who manages the mineral resources in this community? (*Tick as many as may apply*)

Government of Ghana	The people in community	Mineral Companies	Traditional leaders
Others ( <i>Please specify</i> )			

10. Do you think the community can play a role in the ownership and management of mineral resources in this community?

Yes	No
-----	----

11. Explain your response

.....

12. If no to *question 1*, would you want to have a voice in the decision making processes that result in the selection of mining companies to the community?

Yes	No
-----	----

13. Explain your answer

.....

14. Can you easily access information on the contractual agreements between the Government of Ghana and mining companies operating in the community?

Yes	No
-----	----

15. If yes to *question 5*, where can you access this information?

.....

16. Can you easily access information on payments made by mining companies to the Government of Ghana ?

Yes	No
-----	----

17. If yes to *question 7*, where can you access this information?

.....

18. Do you know the amount of royalties and taxes paid by mining companies to the Government of Ghana?

Yes	No
-----	----

19. Do you know the amount of royalties disbursed by the central Government to the community through its local representatives?

Yes	No
-----	----

20. Are there groups, organisations or institutions that represent your interests in the process of contracting, disbursement of mineral revenues and how they are spent in the community?

Yes	No
-----	----

21. If yes to *question 20*, mention these groups, organizations or institutions.

.....

22. What can be done to ensure that Government officials, mining companies and local community leaders render accounts of how mineral revenues are used to the community?

.....

**G. EQUITABLE PARTICIPATION**

1. Do the mining sector create equal job opportunities for both males and females?

Yes	No
-----	----

2. Explain your response

.....

3. Do the mining sector create equal job opportunities for both abled and physically challenged persons in the community?

Yes	No
-----	----

4. Explain your response

.....

5. Has mining and its related activities created equal job opportunities for both literates and illiterate in the community?

Yes	No
-----	----

6. Explain your response

.....

7. Are there group of people who have suffered or continue to suffer because of the mining operations in the community?

Yes	No
-----	----

8.If yes to *question7* above, List some of the sufferings

.....

9. Do the mining companies employ natives of the community to its **middle to top management** positions?

Yes	No
-----	----

10. Explain your response

.....

11. What can be done to promote the inclusive participation of minority and vulnerable groups in mining communities such as yours?

.....

**We have come to the end of our interview. Thank you very much for having time to participate in this study.**

**THE END**

## Appendix: 2 Interview Guide for Minerals Commission of Ghana



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### INTERVIEW WITH THE MINERALS COMMISSION OF GHANA

**Q1a.** Do you agree that the general public should have a say in the management of mineral resources and how the funds should be used?

**Q.** If yes how?

**Q2.** In terms of people having the voice, do you give preference to people in mining communities or equal voice to all citizens, irrespective of where they live?

**Q3a** What is the Commission understands of transparency in the mining sector?

**Q3b.** Do you depend solely on the Minerals and mining 2006, Act of 703 in promoting transparency?

**Q3c.** Are Ghanaians involve or engaged during the contractual agreement process?

**Q3d.** Does it mean that per the current arrangement, the ordinary people cannot get access to contract agreements between the government and mining companies?

**Q4a.** What is the Commission's understanding of Accountability in the mining sector?

**Q4b.** Are the involved in deciding how the revenues from minerals should be utilized?

**Q4c.** Would you agree with those who argue that the percentage that goes into the mining communities is inadequate?

**Q4d.** Per the breakdown you have taken me through, don't you think the several divisions and allocations of the mining revenues are too much?

**Q4e.** Isn't the Mineral Revenue Management Act long overdue?

**Q4f.** What about the other minerals such as gold, diamond and Manganese?

**Q5b.** What are the human development needs of the people?

**Q5c.** That is the mining companies, What is the Commission's knowledge of the development need of the people in especially Western Region?

**Q5d.** Would you agree with those who say that the District Assemblies spend their share of the mining revenues on things that do not directly benefit the people in the Communities?

**Q5e.** Is this guidelines backed by law?

**Q6a.** Would you agree with someone who says that mineral revenues have not benefited the

**Q6b.** Is the current Mineral Development Fund backed by law?

**Q7a.** If you should ask the people in the Western region if the mining revenues have benefited them, do you think they will answer positively?

**Q.8b.** Do you think mining has been a ban than a blessing in Ghana?

**Q8c.** Do you think the mining companies are siphoning resources from the communities to the detriment of the community members?

**Q9d.** Do you think the current mineral governance structure is people centered?

**Q10.** What do you think the future of mining and its effects on development looks like?

**THANK YOU FOR YOUR PARTICIPATION**

## Appendix: 3 Interview Guide for Ghana Chamber of Mines



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### INTERVIEW GUIDE WITH THE GHANA CHAMBER OF MINES

**1a. Q.** Are you aware of civil society organizations that represent the interest of the public with regards to mineral resource management?

**1b. Q.** If yes could you please mention some of them?

**2a Q.** Do you agree that the general public should have a say in the management of mineral resources and how the funds should be used?

**2b. Q.** If yes how?

**3a. Q.** What is the Association's understanding of transparency?

**3b. Q.** Are there mechanisms to promote transparency in the Minerals and Mining Act of 2006 (Act 703)?

**3c. Q.** Do you think Ghanaians know how much revenues the mining companies pay to government in the form of corporate taxes and royalties?

**3d. Q.** Some residents in the Western Region are clueless of the amount of revenues mining companies pay to governments and local leaders. What could account for this?

**3e.Q.** How can transparency be enhance in this regard?

**R.** We communicate to the people in the local languages. Again before mining contracts are signed, the contract agreements are exhibited in the community

**4.a Q.**What is the Associations understanding of Accountability?

.

**4b. Q** Who are you accountable to?

**4.c.**Are there mechanisms to promote accountability in the Minerals and Mining Act of 2006 (Act 703)?

**Q.** Would you say that because the mineral revenues go into the *consolidated fund*, that is why the people don't see its direct benefits?

**5. a.** What are the human development needs of the people in the mining communities where you operate?

**Q.b.** Don't you think such an Act should have been comprehensive enough to address human development needs?.

**Q.c.** What are some of the environmental challenges of mining?

**Q.d.** With the regulated mining, how do their operations affect the environment?

**Q.e.** Do you think the current Minerals and Mining Act of 2006 (Act 703) addresses the needs of the people?

**Q.d.** If yes how does it?

**Q.e.** People in the communities responded that there is high retrenchment in the industry.

**Q.f.** Do you agree that mining has clouded other sectors such as agriculture in the Western region?

**Q.** Is the ALP in collaboration with government?

**R.** Yes, with the local government.

**Q.g.** (Resource curse theory) Do you think mineral resources have been a blessing or a curse to Ghana?

**Q.h.** Do you think mining creates equal job opportunities for both males and females?

**Q. i.** What can be done to ensure that mining brings development in the Western region and Ghana as a whole?

**Q.j.** What is the future of mining and development in Ghana?

**THANK YOU FOR YOUR PARTICIPATION**

## Appendix: 4 Interview Guide for mining related NGO



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### INTERVIEW GUIDE: NON GOVERNMENTAL ORGANIZATION (NGO) FOCUSING ON DEVELOPMENT IN MINING COMMUNITIES.

#### WACAM

1. a. Are you aware of civil society organizations that represent the interest of the public with regards to mineral resource management?

**Qb.** If yes could you please mention some of them?

2. Do you agree that the general public should have a say in the management of mineral resources and how the funds should be used?

**Qb.** If yes how?

**Q3a.** What is your NGO understanding of transparency?

**Qb.** Are there mechanisms to promote transparency in the Minerals and Mining Act of 2006 (Act 703)?

**Qc.** If yes, what are the mechanisms that are in the Act 703 to promote transparency in mining sequence, which are, licencing, exploration, contracting, extraction, revenue generation and allocation?

**Qd.** How is the EITI helping to promote transparency in Ghana's mining sector?

**Qe.** What other strategies can be put in place to improve and sustain transparency in the mining sector to benefit the citizens?

**Q4a.** What is the Commission's understanding of Accountability in the mining sector?

**Q4b.** Are there mechanisms to promote accountability in the Minerals and Mining Act of 2006 (Act 703)?

**Q4c.** What evidence do you have to substantiate the claim that royalties are not used for the benefit of the people?



**Q4e.** What should be the nature of the engagement?

**Q5a.** What are the human development needs of the people?.

**Q5b.** Are you aware of the Alternative livelihood Program by some of the mining companies in the Western Region?

**Q5b.** How is that helping to create jobs?

**Q6.** Do you think the revenue from the mining has benefited the people in the communities?

**Q7.** Do you think Mineral Resources are curses rather than a blessing for Ghana?

**Q8.** Would you agree with neo colonial theory, that the mining companies are exploiting the people by siphoning the resources?

**Q9.** Is mining an equal opportunity sector/ in terms of job creation?

**Q10.** What do you think is the future of mining in Ghana?

**THANK YOU FOR YOUR PARTICIPATION**

## Appendix: 5 Interview Guide for Natural Resource Management Expert



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### INTERVIEW GUIDE: NATURAL RESOURCE MANAGEMENT EXPERT

- Q1.** How will you explain good governance?.
- 2.** What do you think can be done to promote good governance in the mining sector?
- Q3.** Do you think the current minerals and mining Act 703, 2006 promote transparency and accountability?
- Q4.** How can mineral rents be spent to promote human development?
- Q5.** How can the Minerals Commission and other organizations in the mining sector be made to respond to the development needs of the people?
- Q6.** How can equal participation be encouraged in the mining sector of Ghana?
- Q7.** Do you think minerals in Ghana have been a curse than a blessing?
- Q8.** Do you agree that the mining companies that are mainly foreign owned are exploiting the mineral resources to the detriment of the people in the country?

**THANK YOU FOR YOUR PARTICIPATION**

## Appendix: 6 Informed consent form



### FACULTY OF MANAGEMENT AND COMMERCE

### DEPARTMENT OF DEVELOPMENT STUDIES

#### Consent form

Thank you for agreeing to take part in this study. Before we start, I would like to emphasize that:

- Your participation is entirely voluntary;
- Some questions may be emotionally trying;
- You are free not to answer any question;
- You are free to withdraw if need arises and

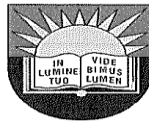
Consistent with the requirements of research, the information given will be kept confidential since no personal details, contact and physical addresses will be required.

As a requirement from the University Research Committee and to show that I have read the contents to you and you have understood, may you sign this consent form.

\_\_\_\_\_ (Signature)

\_\_\_\_\_ (Date)

## Appendix: 7 Ethical Clearance



**University of Fort Hare**  
*Together in Excellence*

### ETHICAL CLEARANCE CERTIFICATE

Certificate Reference Number: RAH201SDAN01

Project title: **Mineral Governance and Human Development  
The case of Western Ghana.**

Nature of Project: PhD

Principal Researcher: Felix Danso

Supervisor: Prof A Rahim

Co-supervisor:

On behalf of the University of Fort Hare's Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

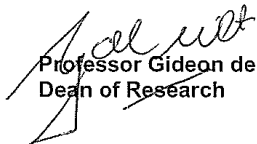
The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

The UREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
  - Any unethical principal or practices are revealed or suspected
  - Relevant information has been withheld or misrepresented
  - Regulatory changes of whatsoever nature so require
  - The conditions contained in the Certificate have not been adhered to
  
- Request access to any information or data at any time during the course or after completion of the project.
  
- In addition to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's office

The Ethics Committee wished you well in your research.

Yours sincerely

  
Professor Gideon de Wet  
Dean of Research

03 December 2015