

Interrogating the Poverty Impact of Gold Mining at the Community Level in Ghana.



TRINITY COLLEGE DUBLIN
COLÁISTE NA TRÍONÓIDE

THE
UNIVERSITY
OF DUBLIN

A thesis submitted in accordance with the requirements for
the degree of Doctor of Philosophy

2023

Benjamin Kwao

School of Natural Sciences,
Department of Geography

University of Dublin
Trinity College Dublin

Declaration

This is to certify that:

- a. I declare that this thesis has not been submitted as an exercise for a degree at this or any other university and it is entirely my own work.
- b. I agree to deposit this thesis in the University's open access institutional repository or allow the Library to do so on my behalf, subject to Irish Copyright Legislation and Trinity College Library conditions of use and acknowledgement.
- c. I consent to the examiner retaining a copy of the thesis beyond the examining period, should they so wish (EU GDPR May 2018).

Benjamin Kwao

Summary of Methods and Findings

A qualitative research approach was identified as the most appropriate way to develop an in-depth understanding of the poverty outcomes of the gold industry through case studies of three mining communities (Akango, Akyempim, and Salman) in the Western region of Ghana. The study relied on data from semi-structured interviews and household surveys in conjunction with various secondary sources. Triangulation of these data sources was necessary to obtain an in-depth understanding of the factors that condition the poverty outcomes of the gold mining operations among locals at the community level.

Household surveys were conducted in the three selected mining communities to obtain an overview of the impact of gold mining on livelihoods and poverty outcomes with the aim of validating the information gathered during the interviews. A total of 165 surveys were completed across the three communities. Semi-structured interviews were conducted among two categories of respondents: key informants and local residents of the selected mining community. A total of forty (40) key informant interviews were conducted for the study. In the three selected communities for the study, key informants included current and former local government representatives as well as traditional rulers. The interviews with community leaders were centred around the impact on livelihoods and the relevance of gold mining operations to local residents. Besides the community leaders, other key informants interviewed for the study included state officials of gold mining regulatory agencies, public servants at municipal and district assemblies, representatives of both large and small-scale sectors of the industry, and relevant civil society stakeholders. Semi-structured interviews were conducted with representatives of the Minerals Commission, the Environmental Protection Agency, the Water Resource Commission, the Precious Minerals Marketing Company, the Ghana Geological Survey Authority, the Ghana Chamber of Mines, the Ghana National Association of Small-Scale Miners, and Women in Mining, among others. Interviews were also conducted with relevant civil/public servants at a selected number of municipal/district assemblies. At the community level, forty-one (41) semi-structured interviews were conducted with local residents to understand the impact (both direct and indirect) of gold mining operations on livelihoods and the challenges posed by the industry on their lives. Furthermore, various policy documents, reports, and publications on the gold mining industry from state institutions and

other relevant organizations of interest were reviewed to deepen the analysis of data obtained from the semi-structured interviews.

The study revealed that gold mining has the double-edged effect of producing and reducing poverty among different social groups. Analysis of the contribution of both sectors of the industry revealed how gold mining operations help alleviate poverty through mechanisms such as employment of some individuals as well as create poverty by displacing local populations and livelihoods. In terms of large-scale mining, the capital-intensive mode of operations generates exclusions which limit the linkages of the sector to local economies – the enclave status. While the acquisition of large-scale mining concessions led to the displacement of large populations, the mode of operations limited their inclusion in extractive activities and reinforced existing class relations within host communities. With small-scale mining, on the other hand, it is revealed that increased interest in the sector is not only because gold mining is often more remunerative than farming but also due to the lack of other livelihood alternatives compared to the urban areas. It is revealed that the labour-intensive mode of operations enabled the inclusion of a significant number of people compared to the large-scale sector. However, the critical assessment shows that the nature of operations and the labour processes involved in the extractive sector does not facilitate the accumulation of sufficient income for a majority of the people involved in small-scale mining to move beyond subsistence. A review of the organizational structure revealed how the extractive activities in the sector reinforce existing social class relations as most of the benefits accrue to the elites in host communities. Similar to the large-scale sector, the traditional leaders and elites in host communities are the dominant winners by securing or exercising some form of control over extractive activities, often in the capacity of pit owners, equipment owners and sponsors. By examining the poverty impact of large and small-scale sectors of Ghana's gold mining industry, this study argued that extractive activities primarily benefit a limited number of people in host communities to the detriment of the larger population.

Table of Content

Declaration	i
Summary of Methods and Findings	ii
Table of Content.....	iv
Acknowledgement.....	vii
Abstract	viii
List of Tables.....	x
List of Figures	xi
Acronyms & Abbreviations	xii
Chapter One	1
Poverty Outcomes of Resource Exploitation	1
1.1 Introduction: Natural Resources and the Development Paradox	1
1.2 Research Objective, Questions, and Significance.....	4
1.3 Background and Justification of Ghana as a case study	6
1.4 Structure of the Thesis	10
Chapter Two.....	16
Governance of Extractive Industries for Development.....	16
2.1 Introduction	16
2.2 Political Economy of Mining in Africa.....	18
2.2.1 Liberalized Mining Reforms	20
2.2.2 Implications of Liberalized Mining Codes.....	23
2.2.3 Rethinking the Role of the State & a New Wave of Governance Reforms	27
2.3 ‘Resource Curse’ thesis: From National to Subnational.....	31
2.4 Extractive Governance & Gold Mining in Ghana.....	39
2.5 Conclusion	48
Chapter Three.....	50
Research Methodology: Assessing Poverty Outcomes of Gold Mining.....	50
3.1 Introduction	50
3.2 Study Design: Adopting a Qualitative Approach.....	51
3.3 Case Studies in Qualitative Research.....	53
3.4 Triangulation: Increasing Credibility.....	57
3.5 Semi-Structured Interviews.....	60

3.6 Household Surveys in Mining Communities.....	66
3.7 Documentary Analysis: Using secondary data sources	69
3.8 Ethics, Positionality and Reflexivity	71
3.9 Conclusion	74
Chapter Four	76
Large-Scale Gold Mining and Poverty Outcomes in Ghana	76
4.1 Introduction.....	76
4.2 Footprint of Large-scale Gold Mining Industry in Ghana.....	78
4.3 Poverty Outcomes of Large-scale Mining on Host Communities.....	87
4.3.1 Issues about Employment into Large-Scale Industry.....	88
4.3.2 Impact on Livelihoods and Economic Activities	97
4.4 Alternative Livelihood Programmes.....	103
4.4.1 Poor Planning and Lack of Local Buy-in.....	104
4.4.2 Poor Commitment from Mining Companies.....	106
4.4.3 Preference for Jobs with Mining Companies	107
4.5 Infrastructural Development from Mining Companies	109
4.6 Mineral Royalties Usage.....	114
4.7 Compensation & Resettlements.....	127
4.7.1 Inadequate Compensation	129
4.7.2 Elite Capture of Compensation	130
4.7.3 Poor Usage of Compensation.....	131
4.7.4 Marginalization from Unkept Resettlement Promises	133
4.8 Conclusion	136
Chapter Five.....	138
Small-Scale Mining for Poverty Alleviation in Ghana: A Myth or Reality?	138
5.1 Introduction.....	138
5.2 ‘Allure’ and ‘Pursuit’ of Scale-scale Gold Mining.....	140
5.3 Development Contributions of Small-scale Mining at Akango.....	147
5.3.1 Organization of small-scale mining activities at Akango	148
5.3.2 Linkages between Small-scale Mining & the Local Economy at Akango	153
5.4 Poverty Outcomes of Small-scale Mining in Ghana	159

5.5 Conclusion	172
Chapter Six.....	174
Summative Reflection: Poverty Impacts of Extractive Industries	174
6.1 Introduction.....	174
6.2 Poverty Outcomes of Gold Mining.....	174
6.2.1 Outcomes of Large-scale Mining	176
6.2.2 Outcomes of Small-scale Mining	178
6.3 Contributions of the Study	183
6.4 Policy Lessons or Implications	187
6.4.1 Recognize the Parallel System of Extractive Governance and its Effects on Outcomes	187
6.4.2 Revisiting Mining Legislation on Mineral Royalties & Its Implementation.....	189
6.4.3 Rethinking CSR: the Shared Value Approach?.....	192
6.4.4 Reforming the Regulatory Environment of Small-scale Mining	194
References	198
Appendices.....	231
Appendix 1: Community Mining Schemes Launched as at November 2020	231
Appendix 2: Summary List of Key Informant Interviews and their Affiliations	232
Appendix 3: Household Survey Questionnaire	233
Appendix 4: Sample List of Questions for Semi-Structured Interviews.....	239
Appendix 5: Informed Consent Form	240

Acknowledgement

This thesis is the culmination of many people's immeasurable support, goodwill, and sacrifice. I owe a debt of gratitude to my supervisor, Professor Padraig Carmody, whose critical comments, suggestions, and guidance brought this thesis to fruition. This thesis is a testament to the effort and time you invested in my academic life at Trinity. I would also like to thank Dr Federico Cugurullo for all the feedback, support, and encouragement offered throughout the thesis writing process. I really appreciate the insightful feedback received from Dr Rory Rowan, Dr Philip Lawton and Dr Susan Murphy during my confirmation interview.

I would like to thank all faculty and staff in the Department of Geography for the support given to me in diverse ways during my studies at Trinity. I am thankful to Trinity College, Dublin, for awarding me the Trinity Awards to study in Ireland. I received the Postgraduate Travel Award from the Geographical Society of Ireland (GSI), which provided some funds for my fieldwork in Ghana. Additionally, the timely completion of my studies at Trinity would not have been possible without the financial support received with the award of the Doctoral Fellowship from the Social Sciences and Humanities Research Council of Canada (SSHRC).

I also acknowledge and thank all the participants who made this thesis a reality. I am grateful for the time spent during the household surveys and interviews. I appreciate the references made by key informants to various documents that helped enrich this thesis. Your contributions were riveting and instrumental to the success of this thesis.

I would not have gotten through my time at Trinity without the prayers and support of my family and friends in Ghana, Ireland and Canada. A big thank you to my parents and siblings, as well as Daniel, Reuben, Lina, Immanuel, Alexia, Wahaj, Abbie, Guo, Orla, Maedhbh, Mike, Christabel, Edward, Edna, Goodness, Sarah, Mavis, Jesse, Cynthia, Beatrice and the entire Grapeview Church family in St. Catharines, Canada. Above all, I am most grateful to God Almighty, who has seen me through this journey; he kept smiling at me throughout my studies and life at Trinity and in Ireland.

I dedicate this thesis to my mother, Grace Adwoa Kwao, my father, Renato Kwao, and my siblings, Gabriel and Dorcas.

Abstract

Many studies show a negative correlation at the national level between natural resource wealth and poverty reduction – the so-called 'resource curse'. However, this may not hold at the local level. For example, the incidence of poverty in major gold-producing regions in Ghana, one of Africa's biggest producers, is lower than the national average. The lower incidence of poverty in gold-producing regions in Ghana suggests that these resources may be largely beneficial to the host communities. Most analysis of the relationship between natural resource endowment and development has been focused on the oil industry, with only a limited number examining the impact of extractive minerals such as gold and diamond. Ghana is a classic example of the 'oil industry bias' within the literature, as the nation hardly featured in studies on the 'resource curse' before oil discovery in 2007.

With an empirical focus on the Western region of Ghana, this study seeks to examine the impacts of gold mining on poverty outcomes through in-depth case studies of three host communities. Adopting a qualitative research approach, the study relies on primary data gathered using semi-structured interviews and household surveys in conjunction with a plethora of secondary sources. It is revealed that while the large-scale mining sector is a significant source of revenue for the government, linkages to local economies are poorly developed, and the limited availability of employment opportunities is a source of frustration to many in host communities. The allocation of mineral royalties for development has not yielded the expected results as host mining communities remain poor in Ghana. There is much confusion surrounding the purpose of royalties allocated to chiefs and traditional councils, as well as issues of accountability from district assemblies. The study also reveals that small-scale mining represents work intended to meet the livelihood needs of the rural population in Ghana. The growth of the sector is primarily driven by a lack of alternative sources of income, hence becoming a major means of survival. While small-scale mining offers income-earning opportunities for a relatively larger number of people, the inherent class-based or hierarchical payment structure does not contribute to narrowing the gap between the rich and poor but rather increases social inequalities. Poverty reduction is hindered by fluctuations in productivity and earnings from small-scale mining, which has a corresponding effect on other sectors of the local economy. Furthermore, the primary beneficiaries of extractive activities in both sectors

are local chiefs, community leaders, and elites in the host communities. At the same time, the dominant losers are displaced farmers and marginalized groups, especially women whose rights over land, for example, are mediated through their relationships with men.

The study concludes that the exploitation of gold in Ghana has the double effect of producing and reducing poverty among different social groups. Some people have benefited a lot more from extractive activities than others in host communities. This study contributes to development literature by revealing structural challenges or impediments to Ghana harnessing the strengths of the gold mining industry to meet SDGs 1 (end poverty) and 10 (reduced inequalities). There is a need to be critical of the argument that local content policies can address the enclave status of large-scale mining by stimulating the use of personnel, goods, and services within the domestic economy towards improving the development outcomes of the extractive sector. It is revealed that eliminating state bias toward multinational companies and the politics associated with the governance of the small-scale sector will be challenging, considering the extent to which the Ghanaian state depends on the large-scale mining sector for domestic revenue mobilization. While improved support from the government and its development partners may prove helpful in the long run, success in reforming the regulatory framework of the small-scale mining sector could be derailed by the deeply ingrained interest and influence of both state and non-state actors.

List of Tables

Table 4.1: Fiscal revenue streams from the mining industry.....	79
Table 4.2: Contributions to Direct Domestic Revenue by Sector (2017 – 2020).....	80
Table 4.3: Socio-Economic Contributions of Producing Member Companies of the Chamber.....	84
Table 4.4: Impact of Gold Mining on Household Income.....	102
Table 6.1: Double-edged impact of Large and Small-scale Mining sector on Poverty.....	175

List of Figures

Figure 1.1: Regional Map of Ghana.....	7
Figure 3.1: Map of selected mining communities for the study.....	55
Figure 4.1: Map showing Salman and Akyempim.....	87
Figure 4.2: Household Income Sources.....	97
Figure 4.3: Ghana’s Mineral Royalties Distribution Scheme.....	115
Figure 4.4: Framework for disbursement of Mineral Development Fund (MDF).....	116
Figure 4.5: Akyempim - District assembly use MDF for development of community.....	118
Figure 4.6: Salman - District assembly use MDF for development of community.....	118
Figure 4.7: MDF budgetary allocations and actual disbursements from 2017 to 2019.....	120
Figure 4.8: Traditional leaders utilize mineral royalties for community development.....	123
Figure 4.9: Images of the nature of buildings in Old and New Salman.....	133
Figure 5.1: Map of Akango and Salman with the location of Adamus’ gold mine.....	141
Figure 5.2: Share of native versus migrant in sampled communities.....	146
Figure 5.3: Household Income Sources at Akango.....	147
Figure 5.4: Organizational Hierarchy of Small-scale Mining.....	151
Figure 5.5: Bonsa Community Mining Signboard.....	156
Figure 6.1: Dominant Winners and Losers of Large and Small-Scale Mining.....	180

Acronyms & Abbreviations

AFDB	African Development Bank
CMS	Community Mining Scheme
CSR	Corporate Social Responsibility
DACF	District Assembly Common Fund
EPA	Environmental Protection Agency
GCM	Ghana Chamber of Mines
GGSA	Ghana Geological Survey Authority
GLRSSM	Ghana Land Restoration and Small-Scale Mining Project
GNASSM	Ghana National Association of Small-Scale Miners
GSOPP	Golden Star Oil Palm Plantation
GSS	Ghana Statistical Service
ISODEC	Integrated Social Development Centre
LBMA	London Bullion Market Association
LMC	Local Management Committee
LCP	Local Content Policies
MC	Minerals Commission
MCDS	Mining Community Development Scheme
MDF	Mineral Development Fund
MIIF	Mineral Income Investment Fund
MLNR	Ministry of Lands and Natural Resources
NDC	National Democratic Congress
NPP	New Patriotic Party
OASL	Office of the Administrator of Stool Lands
PAYE	Pay As You Earn
PRMA	Petroleum Revenue Management Act
PMMC	Precious Minerals Marketing Company

SAP	Structural Adjustment Policies
TNCs	Transnational Corporations
UN	United Nations
WACAM	Wassa Association of Communities Affected by Mining
WIM	Women in Mining
WRC	Water Resource Commission

Chapter One

Poverty Outcomes of Resource Exploitation

1.1 Introduction: Natural Resources and the Development Paradox

Since the turn of the twenty-first century, many African economies experienced a surge in economic growth and investment not seen on the continent in decades due to the new scramble for oil, gold, platinum, and other industrial metals (see Ayers 2012; Carmody 2016; Wengraf 2018). Similar to the colonial rush at breakneck speed to claim the continent's raw materials in the 19th century, Wengraf (2018) argues that the 'new scramble' is the latest era of increased competition and a drive to profit from the exploitation of Africa's valuable oil and minerals. The surge in commodity prices that began in the year 2000 enabled nations endowed with natural resources to grow at an appreciably faster pace than many non-resource-rich countries on the continent (Chuhan-Pole *et al.* 2017). The boost in the production of natural resources and increased investor interest raised hopes of African nations meeting some of their Sustainable Development Goals (SDGs) as the high commodity prices aided unprecedented growth rates, even during the 2008-2009 global recession (Chuhan-Pole *et al.* 2017; Wengraf 2018).

The expansion of extractive industries enhanced their importance as a major source of income to many resource-rich nations, contributing significantly to foreign exchange earnings and public revenue. Unfortunately, the translation of extractive industry-led growth into poverty reduction has been lower in Africa than in the rest of the developing world (Chuhan-Pole *et al.* 2017). Excluding China, Christiaensen *et al.* (2013) argue that the growth elasticity of poverty on the African continent is one-third that of the rest of the developing world. The incidence of poverty in Nigeria stands at 47.3% (about 98 million people) of the population (Lain & Vishwanath, 2021) despite oil accounting for over 80% of the nation's exports, a third of banking sector credit, and half of the government revenues (World Bank 2021d). Poverty remains endemic in Africa as the exploitation of the continent's natural resources has enriched only a handful of actors: local elites and international investors (Wengraf 2018). Africa is characterized by a "paradox of plenty" as it is a resource-rich continent but also the world's poorest (see World Bank 2018).

The likely effects of extractive industry-led growth are often described with reference to the ‘resource curse’ thesis, as a wide range of studies has highlighted potential dangers associated with a nation’s high dependence on natural resource exports (Parker and Cox 2020). The ‘resource curse’ is not a phenomenon unique to Africa, “but it is at its most virulent on the continent that is at once the world’s poorest and, arguably, its richest, with about 15% of the planet’s crude oil reserves, 40% of its gold, and 80% of its platinum” (Burgis 2015, p. 5). The ‘resource curse’ thesis typically explains the tendency of resource-rich economies to underperform in economic growth and other development outcomes (Auty 2001; 2003; Mehlum *et al.* 2006; Sachs & Warner 1995; 2001; van der Ploeg & Venables 2011).

The ‘resource curse’ thesis was initially based on the strong conviction that natural resource abundance has some innately damaging effects on economic performance (Panford 2017). Over time, the thesis has been extended to cover wider negative social and political outcomes, including corruption, civil conflict, and environmental degradation (Papyrakis 2017; Parker & Cox 2020). Also, proponents of the thesis hold the view that resource-rich nations are likely to experience repressive forms of governance (Ross 2012; Sachs and Warner 2001). Undoubtedly, the long reign of some resource-rich African leaders, including Angola’s Jose Eduardo dos Santos (1979 to 2017), Equatorial Guinea’s Teodoro Obiang (1979 to present), and Paul Biya of Cameroon (1982 to present), “epitomizes a trend that seems to support the correlation between large resource-generated revenues and bad governance” (Panford 2017, p. 38). However, the debate as to whether natural resource abundance reinforces autocracies or weakens democracies remains unresolved (Ross 2012). On the other hand, Siakwah (2017a) argues democracy does not insulate a country from oil-related development challenges.

Empirical evidence of this paradox, despite the vast amount of literature on the resource curse thesis, remains mixed and has been far from conclusive (Cavalcanti *et al.* 2011; Papyrakis 2017; Rosser 2006). For instance, the developmental outcomes of oil exploitation have been mixed and contrasting for nations like Norway, Nigeria, Venezuela, and Ecuador due to differences in resource and rent management (Boschini *et al.* 2007; Humphreys *et al.* 2007). As a matter of fact, studies such as Brunnschweiler and Bulte (2008) and Cavalcanti *et al.* (2011) have disputed the universal existence of a ‘resource curse’. The problematic impacts of natural resources like oil, Siakwah (2017a) argues, are conditioned and shaped by the

interactions between global and local factors (actors, agencies and structures). According to Luong & Weinthal (2010), resource-rich nations are not cursed by their wealth per se but rather by the ownership structure chosen to manage windfalls. Recognizing the complexity associated with the thesis, Papyrakis (2017) argues that the manifestation of the phenomenon depends on several factors, including the type of natural resources, the method of measuring the impact of the industry and the kind of socio-political institutions in the nation.

Most analysis of the contradiction between natural resource endowment and development has mostly been focused on the oil industry; hence Ross (2012; 2015) posited that the ‘curse’ is an “oil curse”. However, this “oil curse” stance has been thoroughly debated by scholars such as Dunning (2008), Luong and Weinthal (2010) and Sachs (2007), who argue that there is no generalized tendency associated with the resource. To Johnson *et al.* (2020), studies on the relationship between development and other minerals, such as gold and diamonds, remain unclear. So far, a limited number of studies (see Deaton and Niman 2012; Hilson 2010; 2012b; Labonne 2002; Pegg 2006) have examined the developmental impact of extractive minerals such as gold and diamonds. In the case of gold mining, for instance, it has been established that while the industry may help alleviate poverty through mechanisms such as employment generation, it can also create poverty by displacing local populations and livelihoods (Deaton and Niman 2012; Labonne 2002; Pegg 2006).

Ghana is a classic example of the “oil industry bias” within the resource curse literature. Despite its reputation as a leading producer of gold, Ghana was hardly featured in studies on the ‘resource curse’ prior to oil discovery in 2007. Since Ghana’s oil discovery, the term “resource or oil curse” has frequently been used in various analyses of the nation’s development prospects (see Kopiński, Polus and Tycholiz. 2013; Okpanachi & Andrews 2012). However, an assessment of the developmental prospects of gold mining (the focus of this study), especially regarding poverty outcomes, is significant due to the tendency of locals to be directly involved in the extraction of the resource compared to the capital-intensive oil industry. Relatively few studies have systematically reviewed the linkages between extractive industries and poverty (Gamu *et al.* 2015).

The rural population in Ghana still accounts for most of the nation’s poor due to their heavy dependence on subsistence agricultural livelihood activities as a primary source of income (Cooke, Hague, and McKay 2016; WFP 2009). Although agriculture remains the

predominant form of livelihood among rural communities in Ghana (73.5% of agricultural households in rural areas) (GSS 2013), the presence of natural resources provides an opportunity for local people to diversify their economic activities and generate non-farm income (Tesfaye *et al.* 2011). Indeed, the poverty incidence in major gold-producing regions in Ghana is lower than the national average (Ashanti – 11.6%, Western – 21.1%, and Eastern – 12.6%) and higher in mostly agrarian regions like Volta (37.3%), Northern (61.1%), Upper East (54.8%) and Upper West (70.9%) (GSS 2018).¹ This raises interesting analytical questions such as: what accounts for the lower-than-average poverty rates in these regions? How does the incidence of poverty compare between communities with artisanal and large-scale methods of mining?

The relatively lower incidence of poverty in gold-producing regions is suggestive that this resource may primarily be beneficial to local people, in contrast to the general theme in the literature. Despite gold being the largest export-earning commodity in Ghana (see Larnyoh 2018; van Huellen and Asante-Poku 2021), the industry's contribution to national development and poverty reduction remains debated among scholars and practitioners (Akabzaa 2009). While most previous studies have assessed the contributions of natural resources to development at the national level, this study seeks to examine the impacts of gold mining on poverty outcomes within mining communities in Ghana.

1.2 Research Objective, Questions, and Significance

Focusing on Ghana, the main objective of this study is **to examine the impacts of gold mining on poverty outcomes through in-depth case studies of different mining communities**. While the scale of empirical analysis for the study is set at the local level, attention is paid to how the poverty outcomes in various mining communities are conditioned by macro factors such as global commodity price volatility and government policies, including how revenues are distributed and utilized by institutions and political elites. The study holds the position that space and its production are open, unfixed and continuously in the process of becoming hence the need to understand the multitude of mobilities, interconnections and circulations underpinning spatial formations (see Massey 2005; Thrift 2004). Indeed, Siakwah (2017b)

¹ While the government of Ghana has recently re-organized the administrative regions in the country, this study refers to the old regional divisions since cited secondary data sources have the old classification.

argues that the development outcomes of natural resource exploitation are conditioned and moulded by a globalized assemblage of actors and structures. Commodity price changes on the global market affect the profitability of extracting the resource from its location at a given time (see Hart 2013). In essence, poverty outcomes are not only conditioned by local factors since gold-bearing rocks become a resource only when global market prices are at a level that makes their extraction profitable.

The research objective will be operationalized through the following questions:

- i. What direct and indirect impacts do small-scale (artisanal) and large-scale (commercial) gold mining have on livelihoods and poverty among women and men in mining communities?
- ii. What are the strengths and limitations of measures implemented by various stakeholders to address the adverse effects of gold mining in host communities?
- iii. What policy lessons can be drawn from the experiences of local people in mining communities?

In order to understand the development outcomes of gold mining, this study does not aim to quantify or describe patterns of poverty. Instead, the goal is to examine the manifold set of factors that produce and reinforce poverty. Poverty is a multidimensional phenomenon that includes economic deficiencies amongst the poor, social exclusions, lack of opportunity or public services, and vulnerability or exposure to the risk of those deficits (Zhou & Liu 2019). In the context of this study, an individual or household is said to be living in poverty when they lack adequate and sustainable access to income and resources to meet basic needs, including access to food, clean drinking water, decent shelter, health, education, and sanitation. As argued by Fieldman (2019) and Sharma *et al.* (2020), poverty is produced through intersecting power relations of race, ethnicity, gender and class. Emphasizing the importance of a relational approach, Murphy (2022) maintains that the pursuit of prosperity drives the production of poverty across space and time. Poverty is exacerbated by the social, economic and political relationships between the poor and those who are in a position to affect their lives, such as policymakers, opinion leaders, and economic and political elites, along with others across the local, national and global scale (Elwood *et al.* 2017). By adopting a relational lens, the focus

of analysis reflects how governance structures and processes may empower the rich and powerful while deepening the impoverishment and marginalization of the poor.

This study contributes theoretically and empirically to the ‘resource curse’ debate by providing a fuller and more critical understanding of the relationship between poverty alleviation in resource-rich economies and the gold mining industry, which has barely been featured in previous analyses. Understanding the political-economic dynamics of the developmental outcomes of extractive industries will reveal the wider human-induced factors produced by the capitalist mode of production at play on the ground. Over the years, the artisanal/small-scale mode of gold extraction has evolved into a highly globalized economic activity with foreign financiers or investors and buyers of precious minerals who sometimes function as silent partners by providing capital in the form of informal loans to local stakeholders (see Jønsson & Fold 2011; Wilson 2016). Political ecology provides a useful lens for understanding the causes and consequences of uneven power relations over natural resources and the environment (Le Billion & Duffy 2018; Purwins 2020). As Ayelazuno and Mawuko-Yevugah (2019) argue, extractive governance in Ghana is highly politicized and imbricated in power structures and relations. By using the theories of access and legal pluralism, the study provides an in-depth understanding of the wider socio-political dynamics that shape the poverty outcomes of gold mining. From a policy standpoint, the study provides empirical evidence of how extractive industries can help achieve the Sustainable Development Goals, particularly Goal No. 1 – “End Poverty” and 10 – “Reduced Inequalities” (UN 2015).

1.3 Background and Justification of Ghana as a case study

Situated a few degrees north of the equator, Ghana is a West African country with the Gulf of Guinea and the Atlantic Ocean to the south and shares borders with Togo in the east, Côte d'Ivoire in the west and Burkina Faso in the north. With an estimated 30.8 million people and a population density of 129 persons per square kilometre (GSS 2021c), Ghana is the second-most populous country in West Africa after Nigeria. The country is divided into 16 administrative regions,² with Accra as the capital city (see Figure 1.1).

² Administrative regions changed from 10 to 16 when 6 new regions were created following a referendum in December 2018 (see Shaban 2018).



Figure 1.1: Regional Map of Ghana

Source: Author's Construct.

There are 260 metropolitan, municipal and district assemblies under the decentralized local governance system that serves as the highest administrative and decision-making body at the community level. Additionally, there are traditional rulers and chiefs who superintend over customary lands in the country. Ghana is characterized by coastal savannahs along the Gulf of Guinea in the south, which transitions into tropical rainforests towards the middle belt and a semi-arid (Guinea and Sudan) savannah over the northern half of the country. Besides the Gulf

of Guinea along the southern coastline, Ghana is blessed with numerous rivers and streams, including the Volta River basin (consisting of Lake Volta, the Black Volta, the White Volta, and the Oti), the Ankobra, the Tano, the Pra and several smaller waterbodies that flow directly south into the ocean. These water bodies typically serve as a major source of drinking water and fishing grounds for locals.

Ghana is generally lauded for its competitive multi-party system with free and fair elections and has a relatively good record of upholding civil liberties (Resnick 2019). The country is rated 'Free', with a score of 80 out of 100, in the *Freedom in the World 2022* report, the annual study of political rights and civil liberties worldwide (Freedom House 2022). Since the democratic transition in 1992, there have been relatively free and fair elections with the exchange of power between the two dominant political parties, the National Democratic Congress (NDC) and the New Patriotic Party (NPP) (Awal 2012). Ghana's political elites are mostly fragmented along historical, ethnic and personality cleavages (Whitfield 2011). The desire to win elections, based on competitive clientelism, has "sometimes resulted in a layering of new priorities onto existing development strategies in order for the political party in office to show its imprint" to voters (Resnick 2019, p. 81). This political landscape has caused governments to favour short-term policy options over long-term investments that will facilitate the substantial structural transformation of the economy (Resnick 2019; Whitfield 2011).

Ghana is endowed with natural resources, including gold, diamonds, bauxite, manganese, timber, and oil. Based on data from the World Bank (2021a), the economy grew at an average annual rate of 6.8% from 2010 to 2019. However, the nation recorded a very low growth rate of 0.4% in 2020 following a sharp contraction of the economy due to the COVID-19 pandemic, which led to a nationwide lockdown and a sharp decline in commodity exports (World Bank 2021a; 2021c). With over 80% of its export revenues generated from three primary commodities - gold, crude oil and cocoa, Ghana is commodity-dependent (van Huellen & Asante-Poku 2021). Consequently, the nation is vulnerable to sharp drops in commodity prices, as experienced with the COVID-19 pandemic. While oil and cocoa struggled due to declines in demand and price, gold did well and remained the highest foreign exchange earner among Ghana's exports in 2020 (van Huellen and Asante-Poku 2021). Globally, gold serves as a safe haven or hedge to diversify the increasing risk in the market during economic crises (see Gokmenoglu & Fazlollahi 2015).

Prior to 2005, Ghana's economy relied heavily on agriculture as the most significant contributor to GDP, but the sector's relevance has declined with time. As of 2017, agriculture (22.2%) had been replaced by the services (55.4%) and industrial sectors (22.3%) as dominant (GSS 2018). The dominance of services, as argued by Diao *et al.* (2019), is problematic because much of the sector comprises informal, labour-intensive activities that do not offer realistic pathways to create the number and types of productive job opportunities needed to raise the standard of living in the country. Nevertheless, the problematic transformation of the economy has been accompanied by a reduction in the incidence of poverty in Ghana. As of 2017, an estimated 23.4% of the population was defined as poor, a significant reduction from 56.5% in 1992 (Cooke *et al.* 2016; GSS 2018). However, poverty in Ghana is predominantly a rural phenomenon, accounting for 83.2% of the nation's poor (GSS 2018).

Ghana is an ideal case for exploring the poverty outcomes of gold mining because the industry mostly occurs in rural settings. With agriculture serving as the main livelihood among rural households (see GSS 2013) and gold mining being onshore, unlike oil drilling, which is offshore (Chuhan-Pole *et al.* 2017), Ghana is appropriate for understanding the poverty outcomes of the extractive industry. With about 70% of West Africa's proven gold reserves (Hilson & Potter 2005), the artisanal/small-scale mining sector is an important livelihood activity in Ghana, directly employing an estimated one million people (McQuilken & Hilson 2016). Ghana was the first country in sub-Saharan Africa to formalize the artisanal/small-scale sector, as part of the Structural Adjustment Programme (SAP) reforms in 1983, out of recognition of its potential to improve the livelihood of the poor (see Hilson & Potter 2005). Indeed, the artisanal/small-scale sector, taken together with subsistence agriculture, forms part of a diversified livelihood portfolio that helps rural actors become more resilient to shocks and stressors that contribute to poverty (see Gamu *et al.* 2015; Hilson 2016).

Ghana's large-scale mining sector has been operational since colonial times and can be considered one of the nation's well-established industries, at least compared to oil production. The large-scale gold mining sector is often described as an economic enclave that provides little benefit to local economies because of the capital-intensive nature of its operation. However, scholars like Chuhan-Pole *et al.* (2017) and Bloch and Owusu (2012) have challenged this common perception. For instance, Chuhan-Pole *et al.* (2017) emphasized the substantial multiplier effect of the industry by arguing that for every mining job created in

South Africa, an additional 1.8 jobs are created elsewhere through expenditure and backward linkages. In Ghana, the large-scale gold mining sector attracts a lot of foreign direct investment (FDI) and is a vital source of tax revenue for the government. Despite Ghana being the largest producer of gold on the African continent (Boafo *et al.* 2019) and given its long history of producing the mineral, Burgis (2010) contends that there is generally a sense that the nation is “still getting a raw deal” in terms of the industry’s contribution to development and poverty alleviation. Given that most host mining communities are underdeveloped in the country (Lujala & Narh 2020), Ghana is an ideal case for analysing the contributions of the industry to poverty alleviation with the hope of unearthing limitations to improve the lives of locals who are most affected by operations.

1.4 Structure of the Thesis

This thesis is divided into six (6) chapters. So far, the first chapter has presented the background and contextual ideas which informed the thesis. The chapter started with an examination of the natural resources and development paradox in Africa. The chapter discussed how increased economic growth experienced by some resource-rich nations failed to translate into development and poverty alleviation significantly. The resource curse thesis was introduced as a concept that has been used by scholars to explain the relationship between natural resources endowment and socio-economic development. The chapter discussed the oil bias of the resource curse thesis and the need to systematically analyse the development and poverty outcomes of gold mining which has rarely been featured in previous studies about the phenomenon. The objective, research questions and significance of the study are also presented in the chapter. To examine the impacts of gold mining on poverty in mining communities in Ghana, it is essential to recognize how the outcomes are conditioned by an assemblage of internal and external factors, including government policies and global commodity price volatility. The chapter presents the situational background of Ghana and its justification as a case study. The long history of gold mining in the country and the fact that the industry is the largest foreign exchange earner ahead of oil for the nation make Ghana ideal for examining the poverty outcomes of extracting precious minerals.

Chapter two provides a deeper dive into debates about reliance on extractive industries for development and the governance approach to mining in Ghana and the African continent

at large. The chapter examines the political economy of mining in Africa by providing a historical account of how the World Bank initiated various waves of liberalizing reforms on the continent. Building on the need to improve the development outcomes of mining, the chapter reviews the resource curse thesis by the economic impact of extractive activities. The appraisal of the resource curse thesis presented in the chapter shows why the phenomenon remained intensely debated over the years. Pre-existing analyses are predominately at the national/cross-regional level and focused on the macroeconomic impacts of extractive industries. In contrast, the notion of a subnational resource curse is useful for developing a nuanced understanding of the causal linkages between mining and poverty at the community level. The chapter also examines the differing governance approach and development contributions of the two sub-sectors of the gold mining industry in Ghana. The land and natural resource ownership framework in Ghana has created a parallel system of governance where the government awards concessions to large-scale mining companies while traditional authorities play a pivotal role in the expansion of the small-scale sector by informally granting places for illegal extractive activities. Based on the existing literature, the chapter concludes that the adoption of liberalizing reforms has played a vital role in the differential treatment and governance approach to the two sub-sectors of the gold mining industry in Ghana. The recent push for better transparency and accountability, in addition to the adoption of local content policies, opens new avenues for revisiting existing debates and developing a nuanced understanding of the links between poverty and gold mining.

Chapter three explains the methodological procedures that were followed in data collection, processing, and analysis for the study. This chapter discusses the research approach and explains why the study adopts a qualitative design. It also examines the case study technique and provides justification for selecting the three communities in the western region for research. A detailed explanation of the processes followed to obtain and analyse the data collected from the semi-structured interviews, household surveys, and documents is also discussed in the chapter, including issues regarding research ethics, positionality, and reflexivity. The study recognizes the value of triangulating data from semi-structured interviews, household surveys, and documents to increase the credibility of the research findings. While household surveys were used to obtain quantitative data on the impact of gold

mining on livelihoods at the community level, semi-structured interviews were used to obtain in-depth information on various dimensions of the impact of both small- and large-scale sectors as well as gain insights on extractive governance dynamics. Furthermore, various policy documents, reports, and publications about the gold mining industry are used to deepen the analysis of data obtained from the semi-structured interviews.

In chapter four, the development linkages and poverty outcomes of large-scale gold mining in Ghana are empirically analysed. At the national level, the chapter discusses the contributions of the large-scale mining industry to the Ghanaian economy. At the community level, an empirical analysis of the experiences of local residents helps to understand the development outcomes of large-scale extractive activities. In terms of total domestic revenue mobilization, it is revealed that large-scale mining contributes about three times more than manufacturing, highlighting the extent to which Ghana is dependent on the extractive sector. The nation's manufacturing base remains weak and underdeveloped as successive governments have not successfully altered the colonial dependence on the export of raw materials such as gold and cocoa (Whitfield 2018). Therefore, attempts to retain revenues from the industry in the country have been limited as the implementation of local content policies has only resulted in a change in the suppliers to mining companies, not the places of origin of acquired supplies. In line with the capital-intensive nature and enclave status of extractive industries (see Ferguson 2005), it is revealed that linkages to the local economies are poorly developed, and the limited availability of employment opportunities is a source of frustration to many in host communities. It is argued that implementing alternative livelihood projects has been largely unsuccessful due to poor planning and lack of buy-in, as well as local preference to secure jobs with the mining company, among others. It is also revealed that local residents in host communities remain dissatisfied with the level of infrastructural development provided by mining companies. Local residents highlight the fact that providing schools and other basic amenities without access to adequate and secure income achieves very little in terms of reducing poverty created by land dispossession and deprivation from large-scale mining operations. Despite the allocation of mineral royalties for their development, it is revealed that host mining communities remain poor in Ghana as there is much confusion surrounding the purpose of payments to chiefs and traditional councils, as well as issues of accountability from

district assemblies. The chapter concludes that the development outcomes of gold mining at Salman and Akyempim reinforce arguments about the enclave nature of capital-intensive extractive industries, evident in the limited linkages to local economies. The contrasting experience of local residents in the case studies highlights the importance of situated and contextual analysis of development outcomes of extractive industries. The fact that extractive activities are governed by the same sets of laws does not mean that development outcomes are going to be the same, but are rather mixed based on situated factors such as differences in the corporate culture of mining companies.

Chapter five reviews the importance of small-scale mining to livelihoods in rural Ghana and examines its contribution to development and poverty alleviation. The chapter discusses the ‘appeal’ and ‘pursuit’ of small-scale gold mining using the diverging fortunes of the communities of Salman and Akango in the Western region of Ghana. For many in rural Ghana, small-scale mining represents work intended to meet livelihood needs, often driven by a lack of alternative sources of income hence becoming a primary means of survival (Hilson & Potter 2005; Wilson *et al.* 2015). Analysis of the local economy in Akango revealed how livelihoods and economic life are moulded around small-scale mining activities. Small-scale mining accounts for almost half (48%) of household income among the sampled respondents at Akango. However, the participation of women in small-scale mining is primarily limited to loading and transporting extracted gold-bearing rocks for processing due to cultural practices or beliefs which prohibit active participation. The women at Akango benefit more from the indirect economic activities generated by the small-scale mining activities, primarily taking advantage of the consumptive and backward linkages that emerge in the community. While the economic linkages associated with small-scale mining tend to benefit non-tradable sectors like housing and retail, the impact on agriculture is mixed. In terms of benefits, the income generated from small-scale mining tends to serve as a source of investment capital to improve agricultural productivity. On the other hand, productivity is adversely affected by small-scale mining-induced increased competition for land and labour. While small-scale mining has superior linkages to local economies than large-scale mining, only a few are able to secure adequate and sustained income. Traditional leaders and elites tend to be the main beneficiaries of gold mining by virtue of their position and power wielded over operations. It is argued that

sustaining of economic gains of small-scale mining towards poverty alleviation is a challenge. The critical assessment shows that the nature of operations and the labour processes involved in the extractive sector does not necessarily facilitate the accumulation of sufficient income for a majority of the people involved in small-scale mining to move beyond subsistence. The chapter concludes that while small-scale mining offers opportunities for a relatively larger number of people to earn an income, the inherent class-based or hierarchical payment structure does not contribute to narrowing the gap between the rich and poor but rather increases social inequalities. Furthermore, poverty reduction is hindered by fluctuations in productivity and earnings from small-scale mining, which has a corresponding effect on other sectors of the local economy.

The sixth and final chapter reflects on the main findings of the study and discusses the lessons learnt from the empirical review of the linkages between gold mining and poverty. While previous studies on the development outcomes of gold exploitation have often concluded that the impact of the industry is one-dimensional (see Deaton & Niman 2012; Labonne 2002; Pegg 2006), this study shows that it has the double-edged effect of producing and reducing poverty among different social groups. Analysis of the contribution of both sectors of the industry reveals how gold mining operations help alleviate poverty through mechanisms such as employment and income generation for some individuals as well as create poverty by displacing local populations and livelihoods. There are similarities in the poverty outcomes of large and small-scale mining, evident in the dominant winners and losers of extractive activities. Both sectors reinforce existing social class relations within host communities. Based on the case studies examined, the primary beneficiaries of gold mining are the local chiefs, community leaders, and elites (the richest, most powerful, best-educated, or best-trained group in society) in host communities. The dominant losers from the activities of both large and small-scale mining tend to be displaced farmers and marginalized groups, especially women. By interrogating the poverty outcomes of gold mining in Ghana, this study contributes to development literature by revealing the limited contribution of the extractive industries to the achievement of the SDGs. The study reveals the structural challenges or impediments to Ghana harnessing the strengths of the gold mining industry to meet SDGs 1 (end poverty) and 10 (reduced inequalities) (UN 2015). The study also highlights the need to

be critical of the argument that local content policies can address the enclave status of large-scale mining by stimulating the use of personnel, goods, and services within the domestic economy towards improving the development outcomes of the extractive sector. Methodologically, this study contributes to the literature by highlighting the importance of context and situated analysis of the development outcomes of extractive industries. For instance, an analysis of large-scale mining in Akyempim and Salman revealed how development outcomes are sometimes conditioned by variations in the corporate culture of multinational companies. The multi-sited approach of this study was instrumental in developing a comprehensive understanding of the poverty outcomes of gold mining in Ghana that is reflective of context while also holding broader applicability across settings.

Overall, the study concludes that some people have benefited a lot more from extractive activities than others in host communities. The exploitation of gold in Ghana has the double effect of producing and reducing poverty while generating inequalities. By shedding light on the role of local chiefs and traditional authorities within the extractive industry, this study draws attention to the need to recognize governance dynamics emanating from the interaction of state and non-state actors or structures. There is a need to pay attention to how development outcomes are mediated by the pluralistic system of governance inherited from colonialism, where statutory and customary laws coexist in the same social field (Gebeye 2017; Pimentel 2011; Woodman 2011). The study highlights the need for a stable, supportive regulatory environment for the small-scale mining sector. The competitive clientelist political system prevalent in Ghana doesn't offer much continuity in policy directives for the small-scale sector. Eliminating state bias toward large-scale mining and the politics associated with the governance of the small-scale sector will be challenging, given how the government depends on the industry for domestic revenue mobilization. Furthermore, the fact that small-scale mining offers an opportunity for political elites to capture mineral rent may not incentivise lasting changes to the governance approach of the sector. While improved support in recent times from the Ghana government and its development partners may prove helpful in the long run, success in reforming the governance approach to small-scale mining could be derailed by the deeply ingrained interest and influence of both state and non-state actors in Ghana.

Chapter Two

Governance of Extractive Industries for Development

2.1 Introduction

Natural resource exploitation has shaped the economies, societies, and politics of some nations in positive ways and others in negative ones (Addison & Roe 2018). According to Rosser (2006), there is no deterministic relationship between natural resources and developmental outcomes. While natural resource exploitation can be a significant source of national income, it can also be associated with poverty and social inequality, as some countries have struggled to diversify their economies and create redistributive fiscal systems (Addison & Roe 2018). Differences in the experience of resource-rich nations underlie the importance of governance as one of the dominant factors affecting the developmental outcomes of extractive industries. According to Pegg (2006), the bifurcated causal logic is that good governance begets poverty reduction, while bad governance leads to poverty exacerbation. However, bad governance (often identified as a lack of transparency and accountability) cannot be causally isolated to national spaces; it is shaped by socio-economic structures and the mode of insertion into the global economy (Carmody 2009). For instance, the adoption of neoliberal reforms like the Structural Adjustment Policies (SAP) ensured the (re)insertion of many nations in the Global South into the global economy, surrendering a substantial level of economic sovereignty to external powers (Murray 2009). Among resource-rich nations, the exceptional value of their natural endowment makes them subject to unusually high levels of external interference in shaping their affairs and capture of their resources by dominant states and foreign private interests (Karl 2007). However, there are variations in external interest and interference, as Carmody (2009) argues that Botswana's diamonds have attracted less attention compared to oil or coltan in other countries. Differences in external interest can be explained by the fact that diamonds are not strategic minerals compared to oil or coltan (see Basedau 2005). In that regard, it would be naive to confine evaluations of extractive industries solely to the national space, as natural resource governance transcends the decisions of domestic political elites.

Relatively few studies have systematically reviewed the linkages between extractive industries and poverty (Gamu *et al.* 2015). Both Deaton and Niman (2012) and Pegg (2006) provide evidence of the poor record of poverty alleviation in resource-rich economies, whereas

Labonne (2002) concludes that “mining broadly contributes to poverty reduction” (p. 69). The debate that extractive industries contribute to poverty reduction remains inconclusive, partly due to limited empirical evidence. The lack of conclusive empirical evidence may be attributed to the fact that existing studies have been overly focused on weaknesses or strengths of governance at the national level. Most analysis suffers from ‘methodological nationalism’ (Siakwah 2017b; 2018), ignoring the need to pay careful attention to the complex range of local and global factors that shape and condition developmental outcomes of resource exploitation. According to Nülle and Davis (2018), the localized level of analysis may be the most appropriate scale to empirically pinpoint the effects and transmission channels of natural resource booms due to access to far more data points for researchers. Additionally, the economic outcomes experienced by local entities ultimately sum up to the net benefit of resource exploitation for the nation (see Cust & Poelhekke 2015). Mining communities, as Cobbinah and Amoako (2018) argue, are “spaces of intense political and economic interactions that are continuously being shaped by the changing governance, legal and socio-economic frameworks and processes” (p. 84).

This chapter aims to provide a detailed understanding of debates about reliance on extractive industries for development and the governance approach to mining in Ghana and the African continent at large. As discussed below, mining in Africa is dominated by large-scale multinational companies due to liberalized reforms recommended by the World Bank. In that regard, the chapter reviews the implications of the governance reforms and evaluates the often-poor performance of resource-rich nations despite increased foreign investments. The first section, after the introduction, examines the political economy of mining in Africa by providing a historical account of how the World Bank initiated various waves of liberalizing reforms on the continent. It is revealed that the development strategy of the Bretton Woods Institution was to attract foreign investment by creating a private sector-friendly ownership and taxation system. The role of the state in the extractive industry was redefined from owner and regulator to promoter of private investment. The reforms ensured a shift in the distribution of structural power into the hands of private actors, especially multinational mining companies. The section also reviews the push to improve the development outcomes of mining through

improved accountability and transparency with the adoption of policy tools such as the Extractive Industry Transparency Index (EITI).

Building on the need to improve the development outcomes of mining, the second section reviews the resource curse thesis. The section examines the economic impact of natural resource extraction and reviews issues about price volatility, Dutch disease, and the challenges that exploitation may pose to the agricultural and manufacturing sectors of the economy. Pre-existing analyses are predominately at the national/cross-regional level and focused on the macroeconomic impacts of extractive industries. In contrast, the notion of a subnational resource curse is useful for developing a nuanced understanding of the causal linkages between mining and poverty at the community level. The section before the conclusion examines the differing governance approach and development contributions of the two sub-sectors of the gold mining industry in Ghana. It is revealed that the land and natural resource ownership framework in Ghana has created a parallel system of governance where the government awards concessions to large-scale mining companies, while traditional authorities play a pivotal role in the expansion of the small-scale sector by informally granting places for illegal extractive activities. Additionally, the enclave thesis highlights the limited linkages of large-scale mining to local economies despite state bias towards the sector. In the concluding section, it is argued that the adoption of liberalizing reforms has played a vital role in the differential treatment and governance approach to the two sub-sectors of the gold mining industry in Ghana. The recent push to improve transparency and accountability, in addition to the adoption of local content policies, opens new avenues to revisit existing debates and develop a nuanced understanding of the linkages between gold mining and poverty.

2.2 Political Economy of Mining in Africa

International development actors traditionally focus their technical and financial support on the global trading of high-value metals and energy minerals, perhaps due to their potential to generate foreign exchange and taxes (Franks 2020). Indeed, mineral extraction has been critical to the socioeconomic development of many developing countries, particularly in Africa (Tuokuua *et al.* 2019). The 1992 World Bank document titled '*Strategy for Mining in Africa*' was introduced to provide a blueprint for nations to harness the development potential of natural resource endowment (World Bank 1992). The document was premised on the fact that

most African national states lacked management and technical capabilities to sustain economic development and hence were drawn into the cycle of debt in the 1970s and 1980s (Campbell 2010). Therefore, the approach to mining reform in Africa adopted by multilateral financial institutions aimed to attract foreign investment through a reduction in regulation, a liberalization of social and labour policies and more private sector-friendly ownership and taxation systems (Besada & Martin 2015; Campbell 2010). In line with the neoliberal agenda of the 1980s, there was a conscious push to redefine the role of African states in order to revitalize the extractive industry towards socio-economic development. According to Campbell (2010), thirty-five African mining codes had been revised as of 1995 through World Bank-led reforms, with several revisions subsequently occurring to remedy various issues with initial policy frameworks.

Reforming the mining codes in Africa was necessitated by declining mineral output during the post-independence period, with the continent's share of global production relatively falling from 31.5% in 1970 to only 10% in 1987 (World Bank 1992). Declining production was accompanied by a fall in investment in mineral exploration and maintenance of existing extractive operations on the continent (Besada & Martin 2015). Low prices of minerals on the world market discouraged investment in Africa as a high-risk region; hence the continent received only 4% of global expenditures on exploration in 1991 (Bridge 2004; World Bank 1992). According to the World Bank (1992), the decline in extractive operations on the continent was attributable to the mismanagement of the mining industry by African states, the lack of stable property rights, as well as the high rates of taxes and regulation on private sector investment. Since the perceived risk, especially political instability was the main determining factor for investment in Africa; investors were only interested in opportunities where they could make larger and faster returns on equity compared to what was obtainable from projects in developed countries (Campbell 2010). The impact of inflation on the profit margins of mining companies was an area of particular concern for investors, hence the need to grant access to foreign exchange funds to cover the cost of imports and service debts as well as facilitate the repatriation of capital and dividends (World Bank 1992). Therefore, liberalized mining codes were supposed to provide host governments with increased export earnings and royalties, generate employment for host communities, facilitate technological transfer,

improve access to physical infrastructure and create opportunities for downstream industries (Besada & Martin 2015; Hilson & Maconachie 2009). Between the 1980s to early 2000s, there were successive waves or ‘generations’ of World Bank-led liberalization reforms in the extractive industries on the continent followed the blueprint of the relative success of Ghana from the structural adjustment period (Besada & Martin 2015; Campbell 2009; 2010).

2.2.1 Liberalized Mining Reforms

Just like many African nations that struggled following the economic crisis of the 1970s, Ghana signed up for the World Bank and International Monetary Fund’s (IMF) Structural Adjustment Programme (SAP) in 1983 due to mounting pressure from deteriorating economic conditions and the need for political regime survival (Abdulai 2017; Bebbington *et al.* 2018). The Bretton Wood Institutions applied substantial pressure on the Ghanaian state to amend its Investment Promotion Act in a bid to create an attractive investment climate in the mining industry (Besada & Martin 2015). To attract investors, the World Bank’s strategy to reform the industry was based on the results of a commissioned survey sent to 80 major and junior mining companies (Campbell 2010).

Based on the survey results, key determinants of exploration and investment decisions included “perceived mineral endowment, infrastructure, political stability, investment policies, and institutional framework” (World Bank 1992, p.18). As argued by Campbell (2010), foreign investors were more concerned with clarity and stability in the legal framework, contractual stability, a guaranteed fiscal regime, profit repatriation, and access to foreign exchange, with minimal ministerial discretion and coordination with other legislation. In Ghana, the attractive investment climate was created through the enactment of the *Minerals and Mining Law 1986 (PNDCL 153)*, providing a number of benefits to prospective investors (Hilson 2002a; Hilson & Potter 2005). This legislation led to the following:

“a reduction in the government’s entitlement (10%) of equity in new mining operations; implementation of a low investment allowance (5%) during the first year of operation; complete capitalization of all pre-production expenses; elimination of import duties on capital equipment, and generous retention allowances on foreign exchange profits” (Hilson & Potter 2005, p. 107).

The legislation also permitted 80% of total investment to be written off against tax in the first year and the balance to be depreciated at 50% in subsequent years (Abdulai 2017;

Akabzaa 2009; Bebbington *et al.* 2018). Additionally, large-scale mining companies were allowed to maintain negotiated levels of their gross mineral sales, ranging from 25 to 80%, in offshore accounts (Akabzaa 2009).

According to the World Bank (1992), the potential of existing state-owned enterprises was only attainable in the absence of political pressure on management, hence the need for majority ownership of business ventures by private investors. To protect the interest of investors, various institutional reforms were recommended in line with the neoliberal agenda of reducing the role of the state from owner to promotor and regulator of extractive industries (Campbell 2010). The Bretton Wood institutions recommended the establishment of new institutions and adaptation of existing ones, with well-defined roles, to govern artisanal small-scale mining as well as enforce environmental, health, and safety regulations. According to Akabzaa (2009), the Minerals Commission was created as a one-stop investment centre for the mining industry and was later followed by the establishment of other institutions such as the Mines Department, the Geological Survey Department and the conversion of the Diamond Marketing Corporation (DMC) into the Precious Mineral and Marketing Corporation (PMMC).

In line with the changed role of the government as a regulator (Campbell 2010), the *Mercury Law (PNDCL 217)*, *Small-Scale Gold Mining Law (PNDCL 218)*, and *Precious Minerals and Marketing Law (PNDCL 219)* were promulgated in 1989 to aid governance of the mining industry (Hilson & Potter 2005; Tschakert & Singha 2007). The *Mercury Law (PNDCL 217)* helped overturn the 1932 *Mercury Ordinance*, making it legal for small-scale miners to acquire mercury from authorized dealers (Hilson 2002a; Tschakert & Singha 2007) while providing the legal backing for the prosecution of small-scale miners who fail to observe safe mining practices in the use of mercury (Hilson *et al.* 2007). The *Small-Scale Gold Mining Law (PNDCL 218)* was passed to serve as the legislation to formalize small-scale mining, requiring prospective operators to register a concession with the authorities prior to engaging in mining activity (Hilson 2002a; Hilson & Potter 2005). The *Precious Minerals and Marketing Law (PNDCL 219)* was enacted to grant authority to PMMC to buy gold and diamonds from small-scale miners to sell profitably in order to enhance foreign exchange from the sector (Hilson 2002a; Aryee *et al.* 2003; Banchirigah 2008). In that regard, there was an

observed increase in relative gold production from the small-scale sector from 2.2% of total output in 1989 to 9.5% in 2003 (Hilson *et al.*, 2007; Banchirigah, 2008), mostly seen as a result of changes in reporting.

The decision to formalize small-scale mining, Hilson and Potter (2005) argue, was driven by the belief that this informal sector had the potential to improve the livelihood of the poor. Formalization was supposed to elevate the small-scale mining sector from “an unorganized, unsupervised industry to one that is modernized, monitored, organized, and supported” (Hilson & Potter 2005, p. 108). However, various scholars (Aryee *et al.* 2003; Hilson & Potter 2005) have argued that formalization of the small-scale sector was an integral component of the government’s strategy to promote foreign investment in large-scale mining and mineral exploration. By controlling who can register and where they operate, the state used its authority to designate valuable concessions to large-scale mining companies at the expense of small-scale miners. As argued by Campbell (2010), the Bretton Wood Institutions were particular about providing long-term security of tenure and other privileges to incentivise private investors. The generous incentives offered to private investors, as well as the rise in gold prices, sparked substantial interest in the mining industry and resulted in gold exports regaining prominence in the Ghanaian economy (Bebbington *et al.* 2018). Between 1983 and 2000, Ghana was able to attract over US\$ 4 billion in foreign investment into the mining industry (Aryee 2001).

Building on the success of liberalized reforms in Ghana, the ‘second’ wave of mining reforms on the continent unfolded in the early to mid-1990s, particularly in the case of Guinea (Besada & Martin 2015; Campbell 2004; 2010). Unlike the reforms in Ghana, there was increasing recognition of the need for certain forms of regulations, notably with regard to environmental protection (Campbell 2004; 2010). Indeed, the 1994 *Plan National d’Action pour l’Environnement* (PNAE), and the 1995 Mining Code of Guinea stipulated environmental protection as the sole responsibility for operating multinational companies (Besada & Martin 2015). As argued by Campbell (2004), what was particularly problematic is the lack of consideration given to the negative environmental impacts in extractive industries and the assumption that private operators will self-regulate to correct the wrong. The decision to delegate environmental protection to private (non-state) actors was in tune with the stringent

retrenchment of the state from productive activities and its confinement to the role of facilitator of private investment (Campbell 2010). In that regard, the Guinean government had little capacity to enforce the implementation of environmental regulations, which were mostly nonbinding on multinational companies (Campbell 2004; 2010).

The ‘third’ wave of mining reforms occurred in countries such as Madagascar, Mali and Tanzania in the late-1990s (Besada & Martin 2015; Campbell 2004; 2010). Mirroring the Ghanaian reforms that were successful in attracting foreign investment, the mining codes implemented in Madagascar, Mali and Tanzania were aimed at substantially increasing the contribution of extractive industries to the GDP (Butler 2004; Hatcher 2004; Sarrasin 2004). In the case of Mali, for instance, the 1999 mining code was amended to be attractive, providing a lot of incentives to foreign investors, including free conversion and transfer of profits and funds resulting from mineral exploitation (Hatcher 2004). While a greater role was assigned to the state to regulate extractive operations than in previous generations of mining reforms on the continent, local administrators possessed the inadequate capacity to effectively monitor and enforce these codes (Butler 2004; Hatcher 2004; Sarrasin 2004). Sarrasin (2004) argues that the institutional capacity of the government of Madagascar had been impaired to the extent that it was hardly able to implement even its liberal legislation. In effect, there was a heavy reliance on ‘self-regulation’ by private sector operators for most environmental, social and accountability measures (Besada & Martin 2015).

2.2.2 Implications of Liberalized Mining Codes

The liberalized mining codes implemented across the continent under the guidance of international financial institutions had been presumed to be beneficial to resource-rich nations through greater access to investments and the generation of revenues from taxation and royalties. The expectation was that liberalized reforms would attract sufficient investment, positioning the mining industry as a growth pole and leading sector for national development (Akabzaa 2009). However, various scholars (Besada & Martin 2015; Campbell 2010; Collier & Venables 2011) highlight how the transformation of revenues and foreign investment in the mining industry into sustained economic development was lacking in most resource-rich countries on the continent. Undoubtedly, the liberalized mining codes contributed to an increase in mineral exports (Roxburgh 2010). However, Campbell (2009) contends that the

liberalized mining codes were most beneficial to the multinational companies and a small section of local elites rather than the larger population in affected communities and national development more broadly. The expected economic linkages of resource exploitation at the host community level often fail to materialize (Besada & Martin 2015).

The limitations of liberalized reforms have been attributed to assumptions and principles that informed the World Bank strategy, as Pegg (2006) contends that they were overly focused on strengthening the private sector and promoting economic development with little regard for the environmental and social ills of resource exploitation including the displacement and marginalization of residents in host communities. To Campbell (2010), the extreme forms of state retrenchment that accompanied liberalized mining codes were a major contributing factor to the disappointing outcomes of increased foreign investment on the continent. Similar to the case of Ghana, Tanzania and Madagascar, Hatcher (2004) argues that promoting foreign investment in the mining industry by offering generous tax exemptions was not necessarily compatible with the urgent need to replenish its public treasury for service provision.

According to Campbell (2004), the reforms initiated the process of redefining the role of the state and of reconceptualizing its sovereignty more generally, reducing the authority and autonomy of states to directly govern extractive activities towards achieving their development goals. More specifically, liberalized reforms ensured a shift in the distribution of structural power into the hands of private actors, especially multinational mining companies; hence African states mostly had bargaining rather than governance rights (ibid). Hatcher (2004) draws attention to the paradoxical situation where the Malian government promoted foreign investment to mobilize revenues but was unable to play its role with respect to supplying services because of a lack of revenues. Questioning the necessity and appropriateness of industrial mining in Tanzania, Butler (2004) argued that the geology of gold mineralization in the country was more suited to small-scale extraction than large-scale as most of the discoveries by multinational companies were focused on near-surface deposits, which could have been exploited by artisanal miners.

The surge in foreign investment and growth of large-scale mining on the continent had a corresponding impact on the artisanal small-scale sector of the industry. As Hatcher (2004)

contends, in the case of Mali, the increased presence of multinational companies led to the marginalization of small-scale miners with the transfer of mining sites to multinational companies since the government did not recognize land usufruct rights of artisanal operators. In Ghana, there were patterns of intensified land-use conflict between small-scale miners and large-scale companies over mineral-rich lands (Hilson 2002a). Abdulai (2017) and Bebbington *et al.* (2018) reveal heightened competition over land between multinational companies and local residents in the host community due to a significant shift from underground to surface mining that accompanied the surge in foreign investment following liberal reforms in Ghana. The capital-intensive nature of large-scale mining meant that very few local residents who had been displaced from their farmlands were able to secure gainful employment with multinational companies.

The late 1980s and early 1990s in Ghana marked the beginning of increased tension or conflict between dissatisfied residents in host communities and their chiefs on the one hand and large-scale mining companies on the other (Abdulai 2017; Akabzaa 2004). Furthermore, the privatization of state-owned enterprises and retrenchment of the existing mine workforce as part of the restructuring process of the industry resulted in a net loss of more than 8,000 mine jobs between 1992 and 2000 in Ghana as a result of the switch from labour-intensive underground operations to capital-intensive surface mining (Akabzaa 2004). In that regard, the implementation of liberalized reforms exacerbated poverty and increased marginalization among residents in host communities, displacing farmers and pushing retrenched skilled workers into the informal sector, notably small-scale mining (see Banchirigah 2008; Hilson and Potter 2005). According to Hilson and Banchirigah (2009), many of the displaced rural populations took up “employment as illegal artisanal miners, working both near-surface hard rock and alluvial deposits, in many cases, on the very lands awarded to mining companies” (p. 173).

From an environmental standpoint, gold mining is often accompanied by an increased risk of deforestation, soil erosion, destruction of wildlife, contamination of water bodies through chemical discharges, as well as pollution of air from the release of smoke and dust from blasting (Hatcher 2004). The retrenchment of the state adversely affected the capacity of nations to regulate the ecological risk or issues associated with extractive industries. Indeed,

the liberal reforms in Ghana allowed large-scale mining to expand without effective regulatory measures, leading to pollution and degradation of the environment (Hilson & Potter 2005). As argued by Awudi (2002), the zeal or effort placed into attracting foreign investment was not matched with the necessary legislation needed to address the inevitable environmental impacts of mining. One of the greatest threats of environmental impacts has come in the form of cyanide spillages from large-scale gold mining activities, which have contaminated many of the freshwater sources, fish populations and crops that local people depend on for their survival (Hilson & Potter, 2005). The institutional deficiencies of the Ghanaian regulatory agencies allowed the mining companies to be reckless and negligent in the management and control of the use of cyanide; hence several incidents of spillages have been documented (Amegbey & Adimado 2003; Ayelazuno & Mawuko-Yevugah 2019). Indeed, Amegbey & Adimado (2003) reports several cases, including Bogoso Gold Limited (BGL), of spilling of large volumes of cyanide into the River Anikoko in 1994, as well as two cyanide spillages occurring within a space of two weeks in 2001 involving Gold Fields Ghana Limited, Tarkwa and Satellite Goldfields Ltd (SGL) at Akyempim, both in the Western Region (p. 127-128).

The environmental deficiencies of the liberalized reforms were also prevalent in other countries, including Mali, Guinea, Madagascar and Tanzania (Butler 2004; Campbell 2004; Hatcher 2004; Sarrasin 2004). While the introduction of the new Malian mining code was expected to enable the government to cope more effectively with environmental risks associated with extractive activities, Hatcher (2004) raised doubts about the ability of the government to enforce the regulations as a result of its changed role and desire to attract investment. In the case of Tanzania, Butler (2004) argues that the Development Agreement found in Section 10 of the *1998 Mining Act* allows some rules to be suspended or modified, including a waiver of the liability of mining companies for environmental problems in favour of private corporate interests. The Development Agreement is a legislative loophole that limits the discretionary authority of ministry officials to reject an amendment submitted by a company regarding the terms of their special licence, including terms such as the details of the environmental management plans (ibid).

While Mali and other African nations did not have the institutional and financial capacity to enforce their own environmental requirements, Hatcher (2004) contends that they

were reluctant to introduce strict legislation out of fear of discouraging the interest of foreign investors. In essence, the implementation of liberalized mining codes in Africa had various socio-economic and environmental effects across the different generations or waves of reforms on the continent. As argued by Hatcher (2004), the reforms were not compatible with the situated developmental needs of the countries. The limited compatibility can be attributed to the centralized approach adopted by the World Bank, where local actors were excluded from consultations. According to Campbell (2010), the consultation process reveals the privileged place afforded to multinational companies outside the continent, explaining the emphasis on implementing policies to encourage foreign investment and prioritize their needs over stimulating local development. Maintaining an attractive investment environment and staying competitive was a major concern to the revenue mobilization needs of most nations despite the limited development outcomes of liberalized reforms (Akabzaa 2009).

2.2.3 Rethinking the Role of the State & a New Wave of Governance Reforms

The early 2000s marked heightened pressure on governments to legislate more equitable revenue-sharing codes and adopt a larger developmental role for the state while remaining attractive to foreign investors (Besada & Martin 2015; Campbell 2010). With the multinational companies registering higher profits from the extractive industry, there was mounting pressure on governments to broaden the restricted policy space of previous generations of mining codes to ensure a positive development role for mining (Campbell 2010). For instance, the Ghanaian code from the 1980s was deemed unattractive and uncompetitive due to a reduction in the issuance of exploration licenses and stagnating investment in the mining industry from 1998 to 2000 and beyond (Akabzaa 2009). To remain competitive, the *Minerals and Mining Act 703* was enacted in 2006 to replace the liberalized mining code from 1986 due to concerns that Ghana was losing investment to the far more liberal mineral-endowed African countries such as Guinea, Mali and Tanzania (Abdulai 2017; Akabzaa 2009; Bebbington *et al.* 2018).

According to Akabzaa (2009), the decision to revise the mining code was taken without considering other factors that could have accounted for the downturn in Ghana, including the lack of prospective grounds and falling metal prices. Global demand for gold on the world market was adversely affected by the decline in prices from US\$400 to US\$260 per ounce between 1997 and 2000 (Akabzaa, 2004). The fall in prices forced marginal mines to close and

discouraged exploration. The enactment of the 2006 *Minerals and Mining Act 703* was significantly influenced by transnational actors, particularly the World Bank and multinational mining companies. Akabzaa (2009) argues that while several actors in the industry were involved in the consultative process leading up to the passage of Act 703, the uneven representation of major stakeholders and further rounds of behind-closed-doors consultations (with limited participation of concerned civil society groups and communities) resulted in domination by the large-scale multinational companies. The influence of large-scale multinational companies was evident in the initial reduction of the corporate income tax rate from 35% to 25% and the complete scrapping of an additional profit tax of 35% since the government has no legal basis for imposing it (Abdulai 2017; Bebbington *et al.* 2018).

The 2006 mining legislation prevented the government from introducing new windfall taxes when large-scale mining companies began to make significant profits following rising commodity prices from the mid-2000s onwards (Bebbington *et al.* 2018). As a result, the government resorted to the introduction of various reforms, such as the National Fiscal Stabilisation Levy in 2009 and the 2010 Minerals and Mining (Amendment) Act (Act 794), in order to improve Ghana's earnings during the boom in commodity prices. While the National Fiscal Stabilisation Levy imposed an additional 5% levy on the profits (before tax), the amendment to the Mining Act in 2010 ensured that a fixed 5% minerals royalty rate replaced the sliding 3% to 6% scale provided in the 2006 mining code (Abdulai 2017; Bebbington *et al.* 2018). According to Gajigo *et al.* (2012), the royalty rates in countries like South Africa, Burkina Faso and Mali were increased by about the average rate of 3%, among other revisions to their mining codes. The national mining code in Guinea was revised in 2011, empowering the state to impose up to 35% tariff on revenues of multinational companies in the extractive industry (Besada & Martin 2015). It is interesting to note how external factors (the boom in global commodity prices) and the role of transnational actors (multinational companies and international financial institutions) influenced reforms to extractive governance. While the boom in global commodity prices and the international financial institutions encouraged the government to explore opportunities to increase state revenues from the industry, the influence and profit motives of multinational companies worked against that goal.

According to Abdulai (2017), attempts to maximize the benefits of extractive activities through increased taxation were even supported by both the World Bank and the IMF due to soaring commodity prices. However, the implementation of proposed reforms was uneven and scrappy in the sense that while the 10% increase in the corporate taxes and the 5% mineral royalty rate got enacted in 2012, the windfall tax was not successful due to the influence of the large-scale mining companies (Abdulai 2017; Bebbington *et al.* 2018). Reports suggest that large-scale mining companies threatened to lay off workers if the government of Ghana implemented the windfall taxes (Abdulai 2017). Bebbington *et al.* (2018) note that discussions about the windfall tax coincided with other African countries, such as Mali, reducing their tax rates, which in turn intensified the pressure on the government to suspend its plans. On the other hand, the suspension was attributed to the bad timing of the proposal, as declining gold prices undermined the justification of its implementation (Abdulai 2017; Bebbington *et al.* 2018). In essence, Campbell (2010) contends that there was a significant push to review mining contracts in the name of ‘resource nationalism’ across the continent.

Besides the push to reform extractive legislation to improve windfalls and development outcomes of the industry, a lot of effort was placed into addressing the shortcomings of previous generations of mining regulations, notably improving accountability from stakeholders as well as greater access to economic opportunities for local actors (Besada & Martin 2015; Esteves *et al.* 2013). Viewed as a viable development strategy (Hilson 2019), the growing popularity of local content policies across sub-Saharan Africa has been aimed at ensuring that locals are given greater access to economic opportunities associated with the extractive industries, including employment and the provision of various support services (Esteves *et al.* 2013). Since the capacity and authority of nation-states were adversely affected by the liberalized reforms, there was growing pressure for governance initiatives aimed at promoting socially responsible extractive practices.

New governance initiatives emerged from debates over corporate social responsibility (CSR) as civil society groups successfully drew attention to environmental impact and human rights abuses committed by multinational mining corporations (Besada & Martin 2015; Sagebien & Lindsay 2011). For instance, the work of civil society groups like Global Witness increasingly emphasized the lack of transparency in the extractive industry on the continent,

notably the embezzlement and mismanagement of oil revenues in Angola (Besada & Martin 2015). With heightened calls for ‘socially responsible capitalism’ (Howell & Pearce 2001), mining companies began to take an increasing interest in undertaking voluntary initiatives as part of their CSR strategies towards improving the quality of life of residents in host communities and promoting positive economic development overall (Besada & Martin 2015).

According to Besada and Martin (2015), a key characteristic of the new governance initiatives is the equal and transparent involvement and incorporation of all the relevant stakeholders, including “the extractive companies and their home country governments in developed countries, host governments in developing countries and a broad range of civil society organizations” (p. 270). Extractive Industries Transparency Initiative (EITI) is a major initiative formally launched in 2003 with the mandate of improving governance of the extractive sector through increased transparency and accountability (Andrews 2016; Besada & Martin 2015; Dashwood *et al.* 2022). EITI involves actors from the private sector, government and civil society and operates at multiple (global, national, regional, and local) scales (Dashwood *et al.* 2022). The initiative was launched on the principle that transparency in extractive wealth generated is fundamental to sustainable economic growth hence mining companies in compliant countries are supposed to publish what they pay, and in turn, governments disclose what they receive from the industry (Besada & Martin 2015).

Ghana is a founding member of the global EITI, and the nation has taken steps to improve and strengthen the regulatory regime of extractive industries (Dashwood *et al.* 2022). With the adoption of the EITI, there have been significant improvements in the disclosure of revenues and royalty payments in participating countries (Andrews 2016; Dashwood *et al.* 2022). However, various scholars (Andrews 2016; Sovacool 2020) have stressed a variety of factors that explain the fall of increased transparency to produce the desired level of accountability to citizens, particularly residents in host mining communities. As argued by Andrews (2016), the global frameworks have limited impact on corporations—particularly those operating in Africa and other parts of the global South since most community members may be ignorant or unaware of the principles of the EITI to improve accountability. Scholars such as Hilson and Maconachie (2009) and Idemudia (2013) have identified the limited impact of EITI in mobilizing citizens to hold governments accountable. The limitation emanates from

the fact that the initiative places the onus on citizens and civil society groups to respond to information disclosures and ‘demand’ governments to act responsibly to meet development needs (Malena *et al.*, 2004). In that regard, accountability through the EITI is weakened by political dynamics that affect the agency of economically vulnerable and marginalized residents in host communities who are often unable to act on information at their disposal (Andrews 2016; Awortwi & Nuvunga 2019; Sovacool 2020). As argued by Awortwi and Nuvunga (2019) and Gaventa and Oswald (2019), the ability of people to act on disclosed information about extractive revenues depends on the extent to which they are empowered to influence decisions that affect their lives.

Besides the challenge of triggering social action from the disclosure of information, the initiative is weakened by the liberal approach to accountability and transparency, which expects that corporate, state and civil societies work in a circular reinforcing manner through public oversight under supportive laws and institutions (Dashwood *et al.* 2022; Haufler 2010). Adherence to the stipulations of the initiative depends on the motivation levels of decision-makers (mining companies and governments) to take part in the EITI (Besada & Martin 2015). Despite the explicit goal of improving accountability and transparency, Hilson and Maconachie (2009) argue that the EITI is unlikely to reduce the rent-seeking behaviour and poor governance without “fundamental institutional changes in African countries, including respect for the rule of law, independent judiciary and legal systems, and an informed and engaged citizenry” (p. 58). The fact that the launch of the EITI was preceded by the growing literature on the ‘resource curse’ in the 1990s and early 2000s (Caspary 2012) highlights the complexity surrounding ensuring positive development outcomes from extractive activities. The next section reviews the resource curse thesis by assessing the reasons why resource-rich nations perform poorly.

2.3 ‘Resource Curse’ thesis: From National to Subnational

The ‘resource curse’ thesis (also known as the paradox of plenty) has been used to explain the tendency of nations rich in oil, natural gas, gold, and other valuable minerals to fail to translate their endowment into long-term economic growth and development (Auty 2001; 2003; Mehlum *et al.* 2006; Sachs & Warner 1995; 2001; van der Ploeg & Venables, 2011). While the resource curse literature initially focused attention on economic growth, its scope has

gradually widened to cover broader development and welfare variables. A growing number of studies have associated the thesis with development challenges such as neglect and/or decline of manufacturing and agricultural sectors, weaknesses in governance institutions, corruption, civil conflict, and environmental degradation (Brunnschweiler 2008; Brunnschweiler & Bulte 2008; Cavalcanti *et al.* 2011; Kim and Lin 2017; Watts 2010; 2009). According to Auty (2003), the resource curse thesis is merely a tendency, not a law, as seen in how some developing nations, such as Malaysia and Indonesia, have made better use of their endowment to achieve high economic growth, export diversification, and structural change. The debate surrounding the resource curse is increasingly diverse as several studies have been conducted to understand how it is transmitted.

Explanations of the economic impact of natural resource exploitation are diverse. According to Stevens, Lahn, and Kooroshy (2015), the ‘windfall’ nature of revenues is central to arguments about the impact of natural resources on development. Dependence on natural resources for income can be problematic due to increased proneness to shocks, as the global prices of primary commodities are much more volatile than those of most manufactured products or services (Collier & Hoeffler 2005; Humphreys *et al.* 2007). Among primary commodities, the world market prices for oil and natural gas are more volatile than other minerals and agricultural products (Frankel 2010; van der Ploeg & Poelhekke 2009). World market prices for natural resources do not follow a smooth path, seeing an upward trend in the 1970s, downward in the 1980s and 1990s, and then rising again in the 2000s (Frankel 2010; Ross 2012). Volatility in prices often poses a challenge to financial management and destabilizes economic policy and planning due to fluctuations in revenue inflows. According to Melia (2015), governments of developing nations find it extremely difficult to handle their dependence on extractive industries as significant windfalls from price spikes tend to be followed by revenue shocks during commodity downturns. In that regard, some resource-rich countries build up sizeable debts during the booms by using their resource as collateral for foreign loans (Auty 2003). While resource booms tend to correspond with increased spending on investment plans and higher public sector wages, nations are faced with the challenge of completing infrastructural projects and maintaining employment during commodity downturns (Collier 2007; Frankel 2010).

Large inflows and expenditures of resource revenues are also known to have the Dutch Disease effect on economies (Auty & Kiiski 2001). The Dutch Disease explains a condition whereby a resource boom causes an increase in domestic income due to large inflows of foreign currency, which in turn, generates inflation and depreciation of the real exchange rate (Auty 2003; Deacon 2011; Frankel 2010; Gylfason 2001; Humphreys *et al.* 2007; Pérez and Claveria 2020). The phenomenon was first noticed in the 1960s when the Dutch, following the discovery of natural gas in the North Sea, found that their manufacturing sector suddenly started performing more poorly than anticipated (Humphreys *et al.* 2007). Therefore, resource-rich countries that similarly experienced a decline in pre-existing domestic sectors of the economy are now said to have caught the ‘Dutch Disease’ (Humphreys *et al.* 2007; Murshed 2018). The phenomenon occurs when there is a progressively stagnant/declining sector of the economy (manufacturing or agricultural) due to a boom in resource extraction (Pérez & Claveria 2020). When resource booms crowd out other essential sectors, the economy becomes resource-dependent and heavily exposed to the volatility of commodity prices (Dartey-Baah *et al.* 2012; Pérez & Claveria 2020). The presence of extractive industries, Humphery *et al.* (2007) argue, may set in motion a dynamic that gives primacy to both the natural resource and the non-tradable sector, such as construction, at the expense of more traditional exports like agriculture. However, declining traditional exports may signal the emergence of new markets from the shift in domestic demand, as seen with the growth of the two industries (building materials and beverages production) in Angola, for example (see Wolf 2017). The unevenness of impact highlights variations in the configuration of domestic economies among resource-rich nations. While the Dutch experienced the negative impact of the resource boom in their manufacturing sector, Humphreys *et al.* (2007) contend that the agricultural sector tends to be affected in developing countries due to their limited industrial development and specialization in primary commodity exports.

The Dutch Disease is, however, a non-deterministic phenomenon since the extent to which it manifests in a country is dependent on policies and how natural resource windfalls are utilized. Indeed, Sachs (2007) maintains that it is possible to reverse the phenomenon by adopting the right investment strategy, such as “generating growth in sectors that are central to poverty alleviation but that are in practice non-tradable (including food production)” alongside

managing exchange rate depreciation (p. 173). Botswana's experience with diamonds is an example of how government policies and institutions can help minimize the impact of the Dutch disease. The government of Botswana delinked resource revenues from state expenditure and used sterilization interventions (purchase or sale of foreign currency) to ensure that large foreign exchange inflows have a limited effect on the domestic monetary base (Murshed 2018). Diversifying away from the extractive sector builds up the resilience of local economies and reduces the vulnerability of resource-rich countries to trade shocks. Indeed, it was the competitive diversification of the economies of the East Asian developmental states that ensured their resilience to the trade shocks of the 1970s and 1980s (Auty and Kiiski 2001). The volatility of commodity prices increases the susceptibility of some nations to trade shocks.

While the volatile nature of resource revenues may complicate longer-term planning and result in the boom-and-bust cycle in public spending (van der Ploeg & Poelhekke 2009), differences in development outcomes have been attributed to variations in state accountability to its citizenry and rent-seeking behaviour of political elites. Based on the argument that extractive industries provide 'unearned income' to resource-rich nations, Moore (2001) contends that access to guaranteed revenue streams from natural resource exploitation increases the autonomy of governments while negatively affecting state accountability to its citizenry. With greater state autonomy and less dependence on taxation, citizens are unable to scrutinize public spending and exert pressure on the government for social services (McGuirk 2013). The lack of state accountability to its citizenry, which varies depending on the quality of pre-existing institutions, can also contribute to growing development disparity and social inequality as political elites can channel resource revenues towards a particular demographic group or region as part of their patronage mechanisms.

Two kinds of inequality are associated with natural resource wealth – the “vertical” (between the rich and poor) and the “horizontal” (across regions of a country) (Murshed 2018; Ross 2007). High levels of income inequalities between the rich and poor, Ross (2007) argues, may retard development and reduce the poverty-alleviating powers of economic growth as low-earning or underprivileged families will be unable to take advantage of opportunities to acquire assets as well as invest in education and skill formation. Lower levels of inequality tend to be experienced during natural resource booms in the short run due to increased economic

activities. However, such lower levels of inequality may diminish in the long run when prices return to pre-boom levels (Goderis & Malone 2011), especially if generated incomes are not invested for wealth accumulation (see Labonne 2002). Discrimination in public spending of natural resource revenues is a source of horizontal (across regions of a country) inequality (Murshed 2018). Inequalities across regions of a country can also be associated with the unfair distribution of resource wealth among groups based on factors such as ethnicity. It has been noted that income inequality is high in ethnically polarized countries such as Bolivia or Mexico but reduces in more ethnically homogenous countries such as Norway (Fum & Hodler 2010; Hodler 2006).

Reliance on natural resources as a path to development, Collier (2007) argues, requires governance to be ‘unusually good.’ However, ideas of ‘good governance’ raise concerns about “the nature of contemporary international power relations, the degree to which the sovereignty of individual developing countries is being challenged, and about the evolving roles of international development agencies” (Williams 2009, p. 607). More specifically, governance transcends the exercise of the political and administrative authority of the state (see Goodwin 2009; Williams 2009), as Siakwah (2017b) argues that the challenges associated with extractive industries are conditioned and moulded by globalized structures and actors. In the global governance structure, various actors (across all scales) have different types and levels of power, and the interactions between them are governed by norms and coercion (see Carmody 2009). Actors who provide the capital investment needed for prospecting and extracting natural resources, usually TNCs, tend to wield a large degree of control over the wealth of resource-rich developing nations (see Obi 2010). According to Soares de Oliveira (2007), the lack of indigenous capacity to run the oil sector means that the contractual terms between African states and TNCs, if compared with international standards, are some of the most unfavourable worldwide. To Phillips *et al.* (2016), the emphasis on governance in the resource curse literature highlights the need to recognize the power imbalances between African states, citizens and TNCs, and the challenges of escaping persistent primitive accumulation.

References to the quality of institutions in the resource curse debate (see Boschini *et al.* 2007) highlight the incidence of corruption, the effectiveness of government bureaucracy, the rule of law, and, more broadly, the state’s capacity to promote development (Ross, 2013).

The developmental impact of natural resource exploitation, Mehlum *et al.* (2006) argues, is partly conditioned on the quality of existing state institutions prior to the resource discovery. Not denying the fact that institutional capacity can evolve and develop over time, one line of argument is that a country's vulnerability to the 'resource curse' is conditioned by the nature of its institutions before fiscal reliance on natural resources (Wiens 2014). Resource-rich countries with institutions that are prone to corruption or rent-seeking (grabber-friendly) tend to experience poor economic performance as windfalls are diverted into unproductive activities compared to producer-friendly ones (Mehlum *et al.* 2006; Ross 2013). Nations with producer-friendly institutions manage to use their natural resources endowment to stimulate growth and reduce poverty, while the grabber-friendly ones do not. Oil-rich Equatorial Guinea is an excellent example of an African nation with grabber-friendly institutions (see Blas 2014).

Most African political systems and institutions could best be described as 'hybrid,' a form of governance that embraces formal and informal rules (Boege, Brown & Clements 2009). The hybrid form of governance is a product of indirect colonial rule on the continent (see Mamdani, 1996). This system resulted in the persistence of personal and patrimonial relations that failed to centralize or even develop the capacity to extract taxes (Haggard 2015). To Lund (2006), African economies' hybrid or dual structure complicates governance by providing undue agency to private and state agents, enabling collaborative extraction and exploitation of resources by elites and their cronies. The concentration of national wealth in natural resources, with revenues mostly accruing to the state, may alter the framework for decision-making and the government's locus of authority, influencing the types of institutions and policies adopted (Deacon 2011; Karl 1997). Improving the quality of institutions and adopting better governance practices can discourage corruption, prevent revenue misallocation, and reduce underinvestment in resource-rich countries. However, Haslam (2016) maintains that how to incentivize political elites to initiate change in a pro-development direction remains unclear. To Wiens (2014), simple calls for institutional reform are unlikely to be productive or successful unless there is a reduction of the political rulers' discretion over policy and fiscal reliance on natural resources. Most governments that remain fiscally reliant on resource revenues may not be willing to take bold and painful steps to limit their discretion over the earnings from their natural endowments (Kolstad & Wiig 2009).

Despite the vast amount of literature on how natural resource abundance is associated with various adverse development outcomes, empirical evidence of the paradox is mixed and by no means conclusive (Cavalcanti *et al.* 2011; Rosser 2006). There is nothing innate or inherent about natural resources being mishandled since the developmental outcomes of extractive industries are dependent on how they are governed. Most of the existing analysis of the resource curse, according to Siakwah (2017b), can be criticized for being overly centred at the state and regional levels. The lack of consistent macroeconomic datasets affects the quality of regional/cross-country analyses; hence evidence of the resource curse cannot be relied on. While most of the cross-country analyses utilize either resource dependence (the ratio of natural resource exports to GDP) or abundance (the total amount of subsoil wealth) as explanatory variables (see Brunnschweiler 2008), van der Ploeg and Poelhekke (2017) contend that they suffer from endogeneity bias (inaccurate causal effect) and confounding factors such as unanticipated volatility of commodity prices. According to Owusu (2018), conclusions which were based on GDP contribution to national income, as done by Sachs and Warner (1995), are too simplistic, failing to consider the historical, political, and economic processes leading to the resource curse. Although evidence from cross-country regressions is useful, Mideksa (2013) maintains that contradicting incidences of positive impacts of natural resources in some countries suggest there could be other factors or variables (internal and external) that mediate development outcomes. As Usman (2018) argues, the resource curse thesis does not sufficiently account for situated variations among resource-rich nations. Therefore, a growing body of studies has examined manifestations of the resource curse at the subnational (local) level (Aragón & Rud 2013; Caselli & Michaels 2013; Cust & Poelhekke 2015; Fleming *et al.* 2015; Manzano & Gutiérrez 2019; Poncian 2019).

Similar to the national level, there is considerable disagreement in the literature about the existence of a subnational resource curse (Cust & Viale 2016; Poncian 2019). Nevertheless, Arellano-Yanguas (2008) contends that the subnational curse is not necessarily a new phenomenon as the general causal mechanisms of the resource curse identified at the national level may apply to the local. However, the subnational curse differs in that empirical analysis places emphasis on the relationship between the central and local governments (Paler 2011). In fact, extant studies (see Arellano-Yanguas 2011; Libman, 2010) on the concept focus more

on how a subnational resource curse is produced from fiscal decentralisation of extractive revenues and/ or decentralised resource management. In Peru, Arellano-Yanguas (2011) established how decentralisation of extractive revenues had aggravated the resource curse at the subnational level by causing or exacerbating conflicts over territorial boundaries as well as the transfer and usage of resource wealth. Boutilier (2017) reveals how the resource curse manifests at the local level through corruption and rent-seeking behaviour in the study conducted on the Melanesian Island of Papua New Guinea. In Ghana, local institutions, notably the power of traditional authorities, are understood as an important variable in the manifestation of a subnational resource curse (Ayee *et al.* 2011; Lawer *et al.* 2017). According to Lawer *et al.* (2017), the deep-rooted power and influence of traditional rulers undermine the livelihood of locals, constrain access to extractive revenues and ultimately impede poverty reduction and socio-economic development.

Despite the increasing recognition of manifestations of the resource curse at the local level, some studies have questioned available evidence for the existence of a subnational curse; hence the debate remains inconclusive (see Allcott & Keniston 2014; Cust & Viale 2016; Poncian 2019). Studies that report the presence of a resource curse at the subnational level attribute it to similar mechanisms of transmission to those at work at the national level (Gilberthorpe & Papyrakis 2015). Studies on the subnational resource curse have been primarily framed in the context of governance decentralization, particularly the devolution of revenues and resource ownership. In that regard, Poncian (2019) contends that it is difficult to understand the subnational curse in the absence of decentralization. Even when extractive governance is decentralized, it is important to recognize the extent to which subnational actors wield power and control over resource revenue usage and ownership. In many African countries, resource ownership and management are centralised through national constitutions and legal frameworks. However, the practicalities of the ground strongly depend on the nature and character of politics in the country (Anderson 2012). In the context of centralized ownership and management of extractive resources in Tanzania, Poncian (2019) argues that a subnational resource curse is driven or influenced by the nature of local governments and national politics, as governance at the community level is constrained by the decisions of the central government and ruling political party. Extractive governance and ownership of natural

resources are highly centralized in Ghana despite local actors, primarily traditional rulers, wielding significant control over mineral-rich lands (see Abdulai 2017; Bebbington *et al.* 2018; Lawer *et al.* 2017). By examining the localized impact of extractive industries, the notion of a subnational resource curse offers an avenue to develop a nuanced understanding of the causal linkages between mining and poverty. The subnational resource curse may be an ideal lens for interrogating the poverty outcomes of gold mining in Ghana, considering the ‘parallel system’ of governance in the extractive industry emanating from tensions between ownership and user rights of mineral-rich land at the community level.

2.4 Extractive Governance & Gold Mining in Ghana

Evaluating the poverty outcomes of gold mining in Ghana requires paying attention to the nature of extractive governance. Like most African nations, Ghana elected to nationalize natural resources as the independent government claimed ownership of mineral rights from resident communities through the enactment of the *Minerals Act* (Act 123) in 1962 (Hilson, 2002b). The act wrested property rights from traditional leaders and local communities into the hands of the State. The provision of entrusting mineral rights in the hands of the President on behalf of, and in trust for the people of Ghana has been maintained in various constitutions and amendments of the Minerals and Mining Laws of the nation since 1962 (Abdulai 2017; Bebbington *et al.* 2018). The *Minerals Act* (Act 123) of 1962 has been modified in the present constitution of the country under Article 257 (6) of the 1992 constitution, and it states that

“Every mineral in its natural state in, under or upon any land in Ghana, rivers, streams, water courses throughout Ghana, the exclusive economic zone, any area covered by the territorial sea or continental shelf is the property of the Republic of Ghana and shall be vested in the President on behalf of, and in trust for the people of Ghana” (The Republic of Ghana, 1992, p. 143).

The provision gives substantial power to the state over the use and management of all mineral-rich lands despite local chiefs and traditional rulers maintaining ownership of surface rights. The fact that mineral rights are vested in the hands of the President while the gold-bearing lands are owned and controlled by traditional rulers presents a governance conundrum. By maintaining ownership of land, local chiefs and traditional rulers play an integral role in extractive governance as they are noted for granting areas to (illegal) small-scale miners (Nyame & Blocher 2010). In that regard, Ghana is saddled with a parallel system of extractive

governance as liberalized mining policies have ensured a significant increase in the acquisition of large-scale concessions from the state and a corresponding growth in small-scale mining through the support of local chiefs. Like the large-scale sector, small-scale mining in Ghana has attracted foreign interest from Chinese, British, American, Canadian, Russian, Portuguese, Spanish and Indian nationals despite being reserved for only Ghanaians (Wilson 2016). Facilitated by rising commodity prices on the world market, expansion in the small-scale sector is evident in the percentage share of annual gold production, increasing from 7.4% in 1995 to 15.2% in 2008 and then to 43% in 2018 (Botchwey *et al.* 2018; Adu-Baffour *et al.* 2021).

Despite improved output from the small-scale sector, various scholars (Ayelazuno & Mawuko-Yevugah 2019; Hilson & Maconachie 2020) have highlighted the large-scale mining bias where the Ghanaian state prefers to award valuable areas to multinational companies in order to maximize mineral rents generated from the industry. The large-scale mining bias is best understood as a product of World Bank-led liberalized reforms which predominantly promoted the extractive operations of foreign multinational companies as ‘growth poles’ to stimulate development (Campbell 2010; Hilson 2019). The World Bank approach was based on the assumption that large-scale mining is a potentially great source of wealth for poor countries; hence it was theoretically sound to believe that the extractive industry can positively contribute to poverty alleviation even though the empirical track record has not always been impressive (Pegg 2006). The commitment to liberalized reforms has generated the large-scale mining ‘bias’ as it grants the Ghanaian government the platform for revenue accumulation through taxes, duties, royalties and fees on extractive operations (Hilson 2019). Additionally, the commitment to large-scale mining is grounded on the analogy that the extractive industry has historically served as a viable route to national development in resource-rich countries like Canada, the United States, Australia and the United Kingdom; hence it can play a similar role in developing countries like Ghana (Pegg 2006; van der Ploeg 2011). Indeed, the United States was the world’s leading mineral economy in the same period that the country became the world leader in manufacturing, while coal and iron ore deposits aided the industrial development of Germany and the United Kingdom (van der Ploeg 2011). The success story of these countries was not built on sole reliance on extractive industries but rather the diversification of local economies to build up resilience and reduce vulnerability to trade shocks.

The optimistic view is that large-scale mining will have the spillover effect of producing economic linkages with the rest of the economy (see Auty 2003; Stevens *et al.* 2015; Tordo *et al.* 2013). While such an optimistic view has dominated policy discourse, existing literature on the development contributions of large-scale mining is replete with references to the ‘enclave thesis’ whereby resource extraction has few domestic linkages and is generally isolated or detached from local and national economies (see Bond 2007; Ferguson 2005; Stevens *et al.* 2015). As argued by Auty (2003), large-scale mining companies tend to transmit stronger growth stimuli to distant metropolitan regions than local ones (Auty 2003). Additionally, the ‘enclave thesis’ is used to denote the situation where most of the profits from mining are shipped away or concentrated in the hands of a few elites or rentiers (Bontadini & Savona 2019). Stressing the enclave nature of gold mining, Larsen *et al.* (2009) argue that there are no linkages between the two sub-sectors (large and small-scale) of the industry. Nevertheless, scholars like Bloch and Owusu (2012) and Kotsadam and Tolonen (2016) have argued that there is little evidence to support the enclave thesis.

There is widespread acknowledgement of the fact that gold mining is a major source of revenue for the government of Ghana. The financial linkages from the industry are more robust in the large-scale sector compared to the artisanal/small-scale mining due to its relative size and ease of taxation (Gamou *et al.* 2015). Despite the debate surrounding the efficacy of the current fiscal regime, which was tailored to attract foreign investment (see Akabzaa 2009), it is well acknowledged that gold mining in Ghana has contributed over a long period to the government’s revenues in the form of royalties (from a minimum rate of 3% of the value of production) as well as corporate and payroll taxes (Bloch & Owusu 2012). There is the potential for the nation to significantly increase revenue generation from the industry by resolving deficiencies in how existing fiscal legislation is implemented. According to Malden and Osei (2018), Ghana needs to adopt measures to ensure greater scrutiny of adherence to the current fiscal regime, including the execution of cost audits to detect possible profit shifting by mining companies.

Besides the financial benefits accrued from large-scale gold mining operations, local content policies (LCP) have been introduced to improve the economic impact of extractive industries through a combination of both appropriate investment of revenues and the

development of productive linkages between the natural resource and non-resource sectors of the economy (Ovadia 2016). Indeed, the Minerals and Mining Law of 2006 (Act 703) and the Mining Regulations adopted in 2012 (Law LI 21/73) have provisions that seek to development of economic linkages between the large-scale sector and the economy, including a preference for ‘made in Ghana’ products and services, the requirement for companies to submit plans for recruitment and training of Ghanaian workers, a gradual replacement of expatriates by Ghanaian staff, as well as the requirement to submit a local procurement plan and an annual report (Geenen 2019). While these provisions are aimed at enhancing development benefits accrued from extractive activities, various scholars (Ablo 2015; Panford 2015) have questioned the impact of local content policies. As argued by Ramdoo (2015), the implementation of local content policies highlights “the lack of local sourcing on the part of extractive industries’ with a view to ‘stimulate the use of domestically available factors of production (such as labour, locally sourced goods and services etc.) by the mining industry in order to create more value in the economy” (p. 23). Confirming the enclave argument against large-scale mining, Ackah-Baidoo’s (2016) study on youth employment revealed that the Tarkwa mine of Gold Fields Ghana employs only 4024 people in a district with more than 120,000, with the skill training programs generating little effect overall. The capital-intensive mode of large-scale mining means that a relatively small number of high-skilled and semi-skilled labour is needed to extract, transport, and process minerals (Gamou *et al.* 2015).

The imposition of local content policies on large-scale mining companies, Hilson (2019) argues, is an admission that the liberalized mining reforms enshrined in the World Bank’s *A Strategy for African Mining* did not facilitate the development of local linkages with the extractive industry. In terms of backward linkages in Ghana, increased investment and growth of large-scale mining has led to the establishment of companies that provide various services and equipment for gold extraction, including international original equipment manufacturers (OEM) (Liebherr, Mantrac/Caterpillar, Atlas Copco, Sandvik), input suppliers (Carmeuse Lime Products, Castrol, Maxam, African Explosives), and agents and distributors (Barbex Technical Services, Riepeco) (Bloch and Owusu 2012, p. 439). There is also a growing number of small Ghanaian-owned/participating manufacturers who supply less complex intermediate inputs, notably within the metalworking, engineering, chemicals, and plastics sub-

sectors (ibid). However, questions can be raised about the extent to which the manufacturing sector of the local economy has developed to locally produce mining inputs in terms of value addition rather than Ghanaian organizations simply outsourcing products from external sources to supply to extractive companies. Whitfield (2018) has described the Ghanaian economy as shallow “in terms of what has been produced domestically and the production capabilities of local firms” (p.3).

Forward linkages, in the form of processing prior to export, have been underdeveloped in Ghana although there is potential for ‘heritage’ goldsmith activities on the one hand and limited refining on the other (Bloch & Owusu 2012). The limited development of forward linkages has been attributed to low local demand and consumption of gold jewellery, availability of cheap processed imports from Asia and the Middle East, and continued dependence on older technology among the existing goldsmiths (ibid). The limited development of forward linkages can be seen as an outcome of the adoption of liberal reforms which systematically opened the Ghanaian economy through the removal or lessening of trade and financial barriers and promoted the intensification of primary exports at the expense of developing the local value-added manufacturing sector (see Hutchful 2002). Ghana is unable to trade gold directly internationally because domestic refineries lack accreditation from the London Bullion Market Association (LBMA) (Edubi 2022); hence the large-scale mining companies export their gold to external ones, notably the Rand Refinery in South Africa, to be processed before it is sold to the world market (Bloch & Owusu 2012). The Rand Refinery in Germiston, South Africa, is a common destination for Ghana’s gold before it is sold on the world market (Bloch & Owusu 2012). In essence, the enclave nature of large-scale mining in Ghana raises questions about the extent to which the extractive industries help to improve the quality of life of residents in host communities.

On their own accord, mining companies have taken an increasing interest in undertaking voluntary initiatives as part of a broader shift to improving the quality of life of residents in host communities by embracing voluntary CSR strategies (Besada & Martin 2015). According to Dashwood (2012), CSR refers to “beyond-law obligations that companies must adhere to because their economic activities affect the social and ecological systems in which they are embedded” (p. 9). CSR is a significant tool that gives large-scale companies the social

license to operate as it has been identified to reduce community activism against mining activities (Canel *et al.* 2010; Hilson 2012a). The infrastructural projects are initiated to either facilitate extractive activities or serve as a response to concerns about the poverty-inducing effects of mining (see Gamu *et al.* 2015, Slack 2012). While CSR can be considered a means of poverty alleviation through the provision of social amenities and infrastructure, questions have been raised about whether companies are genuinely committed to socially and environmentally responsible practices (Gamu *et al.* 2015).

Regardless of the debate surrounding the motivation behind CSR (see Gamu *et al.* 2015, Slack 2012), the development contributions of large-scale companies are worth acknowledging and should not be overlooked. In their study on the community infrastructure development in the Tarkwa Municipality, Mensah *et al.* (2014) established that Goldfields Ghana Limited annually spent US\$ 1 million from 2002 to 2011 on social investment projects such as the construction of schools, libraries, clinics, and maternity wards, provision of electric transformers, water supply systems and toilet facilities. According to Yankson (2010), Goldfields Ghana Limited's Sustainable Community Empowerment and Economic Development (SEED) programme certainly had some impact on reducing poverty by improving the livelihoods and quality of life of the targeted 30,000 poor and vulnerable men, women, and children in the 16 primary stakeholder communities. Besides implementing alternative livelihood projects, including vegetable production, animal rearing, batik, and soap production, the SEED programme made significant gains in terms of improving the health and nutrition practices of beneficiaries through "behaviour change, education, growth monitoring, water and sanitation infrastructure, and access to basic medical services" (Yankson 2010, p. 362). By providing public infrastructure as part of their CSR initiatives, large-scale mining companies become agents of community development and poverty alleviation. However, the voluntary, nonbinding nature of many CSR codes raises questions about the commitment of extractive industries to improving the quality of life in mining communities (Besada & Martin 2015). Indeed, mining companies have been accused of 'blue washing' their operations by signing on to nonbinding international compacts in order to give a positive public image to unsound practices (Nwete 2007, p. 313). As argued by Besada and Martin (2015), the lack of broadly accepted measures for evaluating the development outcomes of CSR programs in the

extractive sector allows mining companies to claim adherence to social responsibility without satisfying the needs and demands of other stakeholders.

The failure of large-scale companies to meet the needs and demands of stakeholders, particularly the employment expectations of residents in host communities, has contributed to the expansion of small-scale mining. In fact, Hilson & Banchirigah (2009) argue that many of the displaced rural populations tend to take up “employment as illegal artisanal miners, working both near-surface hard rock and alluvial deposits, in many cases, on the very lands awarded to mining companies” (p. 173). The rapid growth of small-scale mining led to an uneasy relationship with the large-scale sector as the coexistence of the two sub-sectors of the extractive industry is increasingly characterised by tension, antagonism and violence (Aubynn 2009; Cuvelier 2019; Geenen & Verweijen 2017; Hilson *et al.* 2020). According to Hilson & Potter (2005), the implementation of liberalized reforms threatened the traditional land rights of indigenous peoples and weakened their control over land and resources. Therefore, the increased prevalence of small-scale mining can be seen as a form of resistance from marginalized locals.

Within the literature, there are considerable variations in explanations for increased engagement in small-scale mining. While some people are driven to the small-scale sector with the hope of escaping poverty (Tschakert 2009), various scholars (Hilson 2010; Maconachie 2011) recognised that increased engagement in the extractive sector is motivated by the need to diversify livelihood portfolios towards reducing vulnerability to shocks. As argued by Hirsch (2017), Verbrugge (2014) and Werthmann (2009), small-scale mining is perceived as a means to generate or accumulate wealth, gain a higher level of personal freedom or enable participants to adopt a prosperous or more adventurous lifestyle. Within policy circles, the small-scale sector is perceived to comprise people who are looking to ‘get rich quick’ as the lure of earning fast money attracts a significant number of entrepreneurs (Hilson & Garforth 2012). However, the ‘get rich quick’ narrative has been debated as a growing number of studies have shown that the expansion of the small-scale mining sector is poverty-driven since most of the operators are pushed into gold mining out of necessity (Hilson & Garforth 2012; Hilson & McQuilken 2014; Wilson *et al.* 2015).

The idea that small-scale mining is ‘poverty-driven’ in many cases and has become an integral segment of rural economies was first brought to the fore at the International Roundtable on Informal Mining in Washington DC, in 1995 (Barry 1996). The sector is a viable source of income for impoverished populations, especially households in need of a diversified livelihood base (Siegel & Veiga 2010; Tschakert 2009; Hilson & Garforth 2013). Taken together with subsistence agriculture, small-scale gold mining constitutes part of a diversified livelihood portfolio that helps rural subsistence actors become more resilient to shocks and stressors that contribute to poverty (see Gamu *et al.* 2015; Hilson 2016; Labonne 2002). With gold mining mostly occurring in rural settings, the small-scale sector tends to be an attractive livelihood activity to individuals since the dependence on rainfed agriculture and associated low productivity due to the lack of irrigation means that farming alone cannot sustain households throughout the year (Hilson & Banchirigah 2009).

In their study of the Bole District of northern Ghana, Hilson *et al.* (2013) established that small-scale gold mining enabled poor rural households in the village of Kui to diversify away from their reliance on rain-fed subsistence agriculture, which has contributed to their livelihood insecurity due to harsh climatic conditions. Farmers were able to reduce their vulnerability to livelihood insecurity by earning wages from small-scale mining operations. Gough and Yankson (2012) estimate that about 4,000 to 5,000 people live in the new mining village of Kui all year round in the hope of making a fortune, though this number increases in the peak production season (April to mid-October). The relatively low barriers to entry make small-scale gold mining a realistic livelihood option for the poor and impoverished compared to the large-scale sector (Spiegel 2012; Tschakert 2009). Employment opportunities are not limited to men, as women tend to participate in small-scale mining operations as washers and sediment carriers. According to Tschakert and Singha (2007), roughly half of those employed in the small-scale mining sector are women, and they tend to join temporarily during the off-farming season for short-term income generation as a livelihood diversification activity.

The employment potential of the small-scale mining sector extends to other aspects of the local economy by stimulating other economic activities. According to Hilson and McQuilken (2014), artisanal/small-scale mining operations may create as many as six (6) downstream jobs for every individual directly employed in the sector. The list of downstream

occupations includes “service people, such as taxi drivers, cooks, and clothing merchants; semi-skilled labourers, including machine operators and repairmen; and skilled and educated groups, notably bookkeepers, accountants and technicians” (p. 105). As the number of wage earners increases with small-scale mining operations, there is a rise in the demand for goods and services, such as trading and retailing, food and beverages, and rental accommodation (Debrah & Asante 2019). The availability of waged employment from the small-scale sector attracts migrants to host communities, thereby stimulating urban growth and development (see Cobbinah & Amoako 2018; Gough & Yankson 2012).

Similar to the large-scale industry, forward linkages of small-scale mining to other sectors of the local economy are limited. Additionally, the artisanal/small-scale mining sector offers limited opportunities for formal investment in public infrastructure as a result of its informality and inadequate access to capital. To Gamu *et al.* (2015), the poverty-driven nature of small-scale resource exploitation makes it difficult for the sector to directly contribute to the provision of public infrastructure in a formally measurable way. Informally, there are reports that small-scale miners invest their income in new business ventures in the real estate and transportation sectors of the local economy, while others provide support to the educational sector by paying tuition for students (from primary up to the tertiary level) as well as providing furniture and bags of cement for the renovation of basic schools (see Bansah *et al.* 2018; Hilson *et al.* 2017).

In summary, Ghana’s small-scale mining sector has rapidly grown alongside expanding large-scale mining operations due to the displacement of rural populations from their farmlands and the retrenchment of mine workers (resulting from the switch from labour-intensive underground operations to capital-intensive surface mining) with limited alternative livelihood options. Many of the displaced rural populations tend to take up “employment as illegal artisanal miners, working both near-surface hard rock and alluvial deposits, in many cases, on the very lands awarded to mining companies” (Hilson & Banchirigah 2009, p. 173). While large-scale mining activities may have a negative impact on poverty reduction by displacing populations during the acquisition of large concessions, Gamu *et al.* (2015) contend that the small-scale sector serves as an important source of income for displaced women and men. Indeed, the biggest drawback in the contribution of the large-scale gold mining industry to

poverty reduction is the limited capacity to directly employ the poor compared to the artisanal/small-scale sector. The relatively low employment capacity of large-scale mining companies stems from the application of more efficient, capital-intensive technologies to surface mining, in contrast to the labour-intensive underground mining operations of the past (Akabzaa 2009; Gough & Yankson 2012). The enclave nature of large-scale mining activities accounts for the poor development outcomes of the sub-sector of the extractive industry. Nevertheless, the bias towards large-scale bias pertains as the government and its development partners remain optimistic that foreign multinationals could become ‘growth poles’ to stimulate local economic development (Hilson 2019).

2.5 Conclusion

The literature on various dimensions of the resource curse thesis point to the challenge of translating resource endowment into poverty reduction. This challenge underlines the ambiguity in the relationship between extractive industries and development (Bebbington *et al.* 2008). With regards to large-scale mining, to be specific, the enclave thesis has been used to emphasize the limited development of economic linkages to local economies for positive development outcomes from the industry. Yet, extractive companies, governments, and many international development agencies remain optimistic about the potential positive contributions of natural resource exploitation to poverty reduction (Gamu *et al.* 2015), especially in the wake of increased global demand for Africa’s resources (see Carmody 2016; Wengraf 2018). However, there is continuing scepticism about the potential positive contributions of natural resource exploitation to poverty reduction. Indeed, Southall and Comminos (2009) maintain that increased global demand for Africa’s resources “has been based upon reinforcement of alliances between international capital and political elites in resource-rich territories, entrenching patterns of patronage, corruption and informalized economy” (p. 380).

Large-scale mining companies tend to highlight their potential poverty-reducing effects through employment, local procurement, physical infrastructure, and the provision of public goods as part of their CSR initiatives (Dashwood 2012). However, several studies indicate that their effect on poverty tends to be negative, especially when affected communities lack a voice and corporate practices are detrimental to the well-being of locals (Gamu *et al.* 2015). Most of the benefits of large-scale mining tend to accrue at the national level, and the income

distribution mechanisms may not guarantee the trickling down of resource exploitation gains to host communities. By comparison, a compelling argument about the poverty reduction of small-scale mining is given that the sector offers an opportunity for the poor to diversify their livelihood portfolio (Tesfaye *et al.* 2011). The more significant employment potential of small-scale mining is expected to enhance livelihood security, reducing vulnerability to the shocks and stressors that perpetuate poverty among locals.

The adoption of liberalized reforms from the World Bank has contributed to the differential treatment and governance approach to the two sub-sectors of the gold mining industry in Ghana. In light of the recent push to increased transparency and accountability from extractive industries and governments, coupled with the adoption of local content policies, is gold mining in Ghana contributing positively to development at the subnational level? What impacts does gold mining have on livelihoods and poverty among local residents in host communities? Has the adoption of local content policies improved the development outcomes of the extractive industry? The rapid growth of small-scale mining also warrants an in-depth assessment of the poverty outcomes of increased engagement in light of state bias towards the large-scale sector.

Chapter Three

Research Methodology: Assessing Poverty Outcomes of Gold Mining

3.1 Introduction

The general purpose of research is to find answers to questions. According to Draper (2004), a well-executed study ensures that research questions are answered in the most rigorous way possible. The framing of a study, its objectives and the research questions to be answered are central to the systematic processes employed by scholars to adequately fulfil their goal of extending knowledge and understanding about a particular phenomenon (Draper 2004; Winchester & Rofe 2010). There is no doubt that the methodology applied in any research has a significant influence on the findings (Bryman 2007). To Silverman (2013), deciding on a particular methodology is also informed by the researcher's theoretical perspectives as well as ontological (concept of reality) and epistemological (what counts as knowledge) positions. The ontological and epistemological position of the researcher serves as the lenses through which any study is conceived and executed (Leavy 2017). Researchers have to critically examine the research questions to be answered, available data sources, and the methods and strategies for data collection, analysis and presentation (Silverman 2013). This study examines the impacts of gold mining on poverty outcomes in different communities in Ghana. Specifically, the study seeks to answer the questions: What direct and indirect impacts do small-scale (artisanal) and large-scale (commercial) gold mining have on livelihoods and poverty among women and men in mining communities? What are the strengths and limitations of measures implemented by various stakeholders to address the adverse effects of gold mining in host communities? What policy lessons can be drawn from the experiences of local people in mining communities? To answer these questions, the study adopts a qualitative approach using data from semi-structured interviews, household surveys and relevant documents.

Semi-structured interviews were employed as the best means of obtaining in-depth information on various dimensions of the impact of both small and large-scale sectors as well as gaining insights into governance dynamics of the gold mining industry in Ghana. With the aim of supporting information from interviews, household surveys were employed to obtain quantitative data on the impact of gold mining on livelihoods and poverty outcomes at the community level. Furthermore, various policy documents, reports and publications about the

gold mining industry from state institutions and other relevant organizations of interest were reviewed to deepen the analysis of data obtained from the semi-structured interviews. Field data collection for the study was conducted in Ghana from January to September 2021. While the study focused on a selected number of mining communities in the Western region of the country, the researcher visited other areas of interest in the Northern region of Ghana to evaluate the state of operations towards identifying an ideal case for the study. Field activities entailed (a) interviews with key informants across the Greater Accra, Western and Northern regions of Ghana and (b) household surveys and interviews with people living in the three selected mining communities for the study. The sampled communities for the study are Akango in the Nzema East District, Salman in the Ellembelle District and Akyempim in the Wassa East District of the Western region of Ghana. This chapter outlines the rationale behind the chosen methods and processes deemed appropriate for assessing the poverty outcomes of gold mining in Ghana.

The rest of the chapter is organized into eight sections. The first section after this introduction discusses the research approach and explains why the study adopts a qualitative design. This is followed by a discussion of the case study technique, with explanations given for the three mining communities sampled for this research in the second section. The various forms of triangulation and the merits of using multiple sources of data or methods are discussed in the third section. The processes followed to obtain and analyse data collected from the semi-structured interviews, household surveys and documents are discussed in the fourth, fifth and sixth sections, respectively. The penultimate section highlights issues about ethical processes followed, the influence of the researcher's positionality and the need to be reflexive throughout the research. In the concluding section, it is argued that triangulating data from the interviews, surveys and documents helps to increase the credibility of the research findings.

3.2 Study Design: Adopting a Qualitative Approach

On-going academic debates about the appropriateness of qualitative and quantitative research strategies sometimes polarise or exaggerate their respective strengths and capabilities (Bryman 2012). The distinction is often framed in terms of using words over numbers or using closed-ended (quantitative hypotheses) rather than open-ended questions (qualitative interviews). A more comprehensive way to view the differences between them lies in the basic philosophical

assumptions of researchers, the types of research strategies used (such as quantitative experiments or qualitative case studies), and the specific methods or tools employed in conducting these strategies (Creswell 2014; Kumar 2011). According to Bryman (2012), the distinction between quantitative and qualitative approaches serves as a helpful umbrella for the range of practical issues encountered when conducting a study. This study adopts a qualitative approach, and the reason for its appropriateness is discussed in this section, following an overview of the debate.

Quantitative and qualitative approaches differ with respect to the researcher's ontological and epistemological considerations as well as the connection between theory and research. Quantitative researchers hold the objectivist ontological position, which implies that social phenomena and their meanings have an existence that is independent of social actors. On the other hand, qualitative researchers hold the constructivist position, which asserts that social phenomena and their meanings are continually being accomplished by social actors (Bryman 2012). Quantitative research entails a deductive approach to the relationship between theory and research and is aimed at proving, disproving, or lending credence to existing theories (Bryman 2012; Leavy 2017). The quantitative approach involves measuring variables and testing relationships between variables in order to reveal patterns, correlations, or causal relationships (Leavy 2017). On the other hand, qualitative research predominantly utilizes an inductive approach to the relationship between theory and research, with emphasis placed on the generation of theories (Bryman 2012; Leavy 2017). According to Leavy (2017), researchers use the qualitative approach to explore and robustly investigate a phenomenon; to unpack the meanings people ascribe to activities, events, situations, or artefacts; or to build an in-depth understanding of various dimensions of social life. Additionally, Neuman (2014) argues that qualitative approaches appear to generate and use 'soft' data in the form of words and sentences, while quantitative techniques produce and utilize 'hard' data (numbers or statistics).

Despite the differences between the two approaches in terms of how data is generated and their concept of reality, Silverman (2013) maintains that emphasis should be placed on which method is best suited for specific research objectives or issues rather than the superiority of one technique over the other. No research approach is intrinsically superior to the other. However, this study employs a qualitative approach while recognizing the value of quantitative

methods in answering specific kinds of research questions. To be specific, a qualitative research design is more suited to examining the impact of gold mining on poverty outcomes in different mining communities in Ghana due to the need to understand and explain the situated experiences of local residents. While qualitative approaches have been criticised for the lack of neutrality and objectivity that proceeds in a nonlinear path that follows a cyclical, iterative, or back-and-forth pattern (Neuman 2014), it is appropriate for this study because the subjective experiences of participants are vital to acquiring an in-depth understanding of any social phenomenon (Leavy 2017).

The poverty outcomes of gold mining on locals vary based on their interaction with both communities situated and external factors, hence the importance of lived experiences to the study. As argued by Silverman (2013), qualitative methods can be more suited to exploring the complexities of human life as research participants are able to describe their life experiences more effectively. It will be impossible to rely solely on statistics (such as poverty levels) to identify the strengths and limitations of measures implemented to address the adverse effects of gold mining in host communities. While the inclusion of attitudinal questions in quantitative surveys, using techniques such as Likert scales, helps researchers to derive some form of meaning or qualitative data (Bryman 2012), there are limits to the depth of information generated. Hence, the qualitative approach will help generate a detailed understanding of the poverty outcomes of gold mining in communities in Ghana. Consequently, a case study approach is considered appropriate for developing an in-depth understanding of the processes that mediate the poverty outcomes of gold mining operations among local people in Ghana.

3.3 Case Studies in Qualitative Research

The use of case study design has a long history in the social sciences, with its popularity only fading during the quantitative revolution of the post-World War II era (Baxter 2010). The faded popularity during the quantitative revolution does not mean that case studies are limited to qualitative research. According to Bryman (2012), case studies are frequent sites for the employment of both quantitative and qualitative research. Nevertheless, most case studies are qualitative (Neuman 2014), and this is because they are particularly helpful in conducting an intensive, detailed examination of a phenomenon (Bryman 2012). A case study, Yin (2018) argues, is an empirical approach that robustly investigates a phenomenon within its real-world

context, especially when the boundaries between issue and context may not be clearly evident. Case studies are typically concerned with the complexity and particular nature of the phenomenon in question (Bryman 2012). Case studies enable us to link the actions of individuals at the micro level to large-scale structures and processes, helping demonstrate how general social forces shape and produce results in particular settings (Neuman 2014).

With regard to this research, the case study design is appropriate due to the need to engage with local people in selected communities about the impact of gold mining on their livelihoods and poverty outcomes. With the case study design, emphasis was placed on the experiences of research participants in the communities. The target communities for the research were not pre-determined but followed an emergent approach – adaptable to prevailing circumstances or happenings on the field (see Creswell 2009). Adopting an emergent approach for selecting target communities was informed by the fact that gold mining, especially the artisanal/small-scale mode, is quite volatile due to frequent changes in state policies regarding how operations are governed. The majority of small-scale mining operations in Ghana are carried out without a license (Boafo *et al.* 2019). As such, the emergent approach provided the needed flexibility to adjust the selection of case study communities to prevailing conditions on the ground with regard to governance of the gold mining industry.

The study was conducted in the Western region of Ghana because it has a long history of gold mining and currently hosts several multinational companies, including Canada's Golden Star Resources and Kinross Gold Corporation, as well as AngloGold Ashanti and Gold Fields from South Africa. Given that the impact of gold mining on the wealth and poverty of local people is affected by the scale and methods of resource extraction (Gamu *et al.* 2015), the selection of case study communities were influenced by the mode of extraction (large or small-scale), the incidence of poverty at the district level based on available statistics, and key informant guidance. Based on the selection criteria, the study was conducted across three mining communities in the Western region of Ghana, specifically, Salman in the Ellembelle District, Akango in the Nzema East District and Akyempim in the Wassa East District (see Figure 3.1). While the Western regional estimate for the prevalence of poverty was set at 19.2%, the Nzema East district (Akango) had the highest rate at 32.2% of the population, with

Wassa East (Akyempim) recording 25.7% and Ellembele (Salman) having the lowest at 19.9% (GSS 2015).

The selected communities for the study (see Figure 3.1) offer great coverage of the two sectors of the industry and reveal the complexities associated with gold mining operations in Ghana, including illegal activities and resettlement. Akyempim is the host community for Golden Star Resources from Canada.

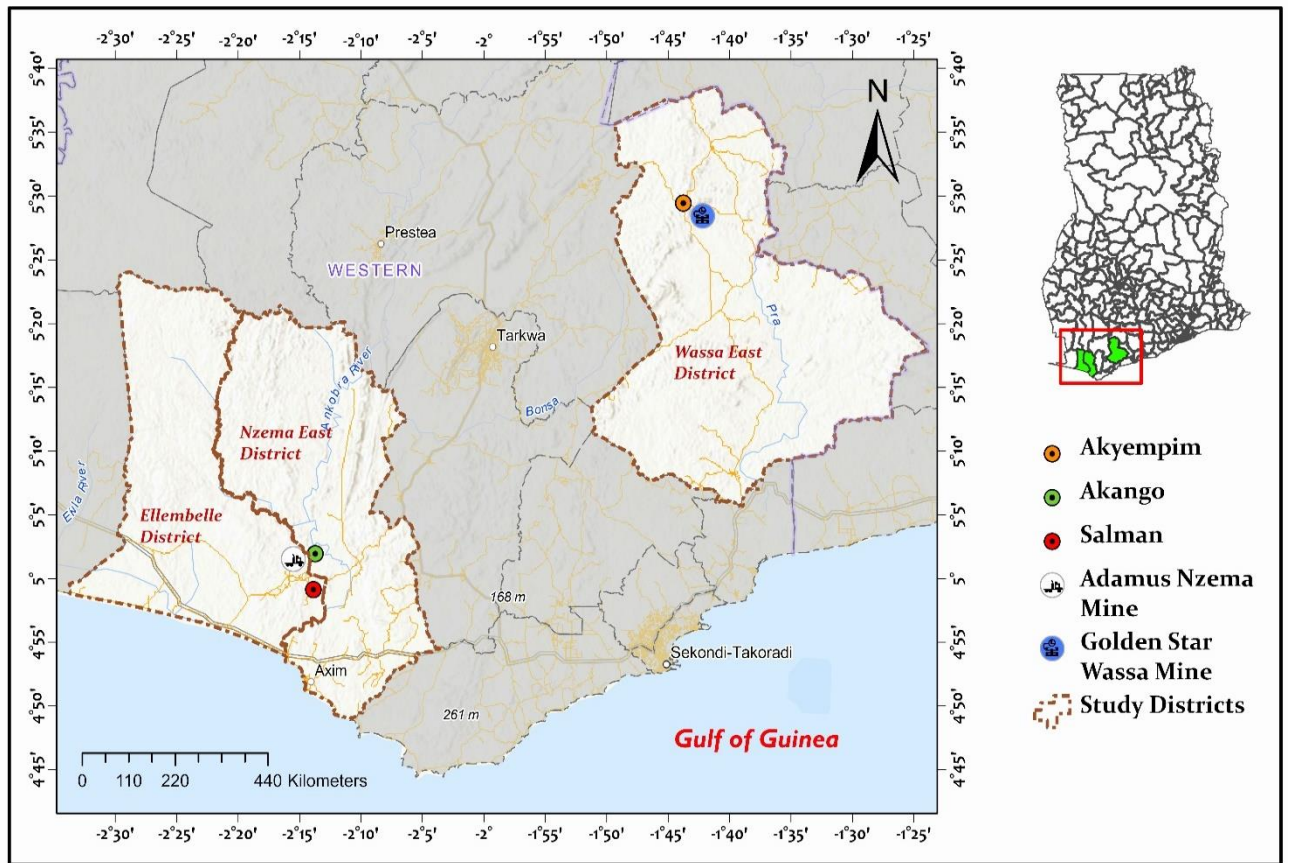


Figure 3.1: Map of selected mining communities for the study.
Source: Author's Construct.

In the Wassa East District, Akyempim is one of the twelve communities that encompass the concession of the mining company. Golden Star started its surface mining operations in the Wassa area in 2005 and underground mining in 2017 before transitioning into purely underground-focused mining operations in 2018 (Annim 2019). The presence of Golden Star Resources has prevented the proliferation of small-scale mining activities in the community, limiting illegal activities to outlying areas outside the concession of the company. With regard

to this study, Akyempim was selected as an ideal case for evaluating the impact of large-scale mining operations on livelihoods and poverty outcomes. In the Ellembelle District, Salam is a resettled mining community and is host to Adamus Resources Limited (a former subsidiary of Endeavour Mining), a large-scale gold mining company currently under the management of the BCM Group.

While Adamus acquired the Salman concession in 2008, the community was resettled in 2012 after two years of protracted negotiations before the signing of the Resettlement Agreement in 2010 (Cision 2012; Johnson *et al.* 2013). The Salman resettlement involved over 2,000 people, 503 structures and 19 public buildings (Cision 2012). While offering a chance to examine variations in corporate culture among multinational companies, Salman was also selected as an ideal case for assessing the impact of resettlement on livelihoods and poverty outcomes of large-scale gold mining operations. On the other hand, Akango, in the Nzema East district, was selected as the ideal case for assessing the impact of small-scale mining activities on livelihoods and poverty outcomes, given its proximity to a large-scale mine. Akango is one of the catchment communities of Adamus Resources Limited. However, unlike Salman, the community got part of the mining company's concession award for the recently introduced Community Mining Scheme (CMS) in 2020 (see Communications Bureau 2020; Minerals Commission 2021). For the most part, Akango has always been a community for illegal small-scale mining activities despite Adamus owning most of the land as part of its concession. As a result, the community attracted lots of migrants who were interested in small-scale mining and the government's anti-galamsey forces for encroaching onto Adamus' mining concession.

The choice of multiple case studies for this research was based on the need to cover the plethora of issues and circumstances consistent with the various forms of gold mining operations in Ghana in order to understand how the livelihood impact and poverty outcomes vary from one context to the other. Case studies are best suited to covering the contextual conditions that are relevant to the phenomenon under study (Baxter & Jack 2008). To Baxter (2010), studies that emphasize how phenomena may unfold very differently from one case to the other seek to derive meaning from the interactions and experiences of local residents. The case study approach enables researchers to explore the complexities of phenomena, recognizing the relativity of 'truths' by placing importance on the subjective human creation

of meaning (Baxter and Jack 2008). Case studies do not aim to generalise findings achieved through a large probability sample. Rather than thinking about the case(s) as a sample, Yin (2018) argues that researchers should approach case studies as an opportunity to shed empirical light on some theoretical concepts or principles.

According to Baxter (2010), analytical generalizability or transferability is possible if case studies are appropriately designed with the analysis attentive to the tension between the concrete and abstract concepts, thereby creating useful theories that are neither too abstract nor too case-specific. In most instances, analytic generalization can be based on either (a) supporting, modifying, rejecting, or otherwise advancing theoretical concepts referenced during the design of case studies or (b) creating new concepts that arise upon completion of the study (Yin 2018). To Baxter (2010), case studies provide a detailed analysis of why theoretical concepts or explanations do or do not adhere to the context of the phenomenon. In the context of this study, the case study approach was chosen as a suitable means of shedding empirical light on relevant concepts and theories, such as the resource curse thesis discussed in the previous chapter. Since the rationale for case studies is to conduct an in-depth and contextual assessment of a phenomenon, researchers must collect and rely on a variety of relevant data sources in order to go beyond appreciating the scope of the study. Indeed, Yin (2018) maintains that the need to use multiple sources of data in case studies far exceeds the use of individual research methods, such as surveys, experiments, or histories, since researchers are able to acquire converging evidence.

3.4 Triangulation: Increasing Credibility

The use of multiple sources of data or methods, Yin (2018) argues, follows the basic principle in navigation whereby the intersection of lines from different reference points helps to calculate the precise location of an object. This is to say that research findings are likely to be more convincing and accurate if they are based on multiple sources of data or methods. Neuman (2014) argues that social research is built on the principle that we learn more by observing from multiple perspectives than by looking from only a single one. The practice of combining different methods or data sources in the research process is known as triangulation (Schutt 2012; Silverman 2013). The principle of triangulation suggests that errors can be minimized by drawing from different methods or diverse sources and types of data (Cope 2010).

According to Schutt (2012), triangulation is premised on the argument that researchers can get a clearer picture of social reality by viewing it from several different perspectives. These perspectives, Flick (2018) maintains, can be substantiated by combining different sorts of data using several methods and/or theoretical approaches.

Triangulation can be undertaken for the purposes of cross-checking or verification, complementarity, and generating new insights (Elwood 2010). Increasingly, triangulation has been used to describe the process of verifying findings derived from both quantitative and qualitative research (Bryman 2012). For triangulation to produce new insights, Elwood (2010) maintains that researchers need to thoughtfully interpret contradictions and silences between different data sources and modes of analysis as well as critically reflect upon the range of possible meanings. Additionally, Cope (2010) argues that triangulation may produce divergent results or contradictions that can be equally interesting to pursue, thereby helping generate new insights and a deeper understanding of the phenomenon of inquiry.

Neuman (2014) identifies four kinds of triangulation used by social researchers: observers, theory, method and measure. Triangulation of ‘observers’ emphasizes the value of studies not relying only on the views and perspectives of a single researcher or investigator since a biased view on an issue or inattention to certain details may restrict the findings (Neuman 2014). In that regard, multiple observers bring alternative perspectives, backgrounds, and social characteristics to the study, thereby complementing each other and reducing the limitation of individuals. Triangulation of ‘theory’ entails using multiple theoretical perspectives to plan a study or interpret the data. Since each theoretical perspective has its own assumptions and viewpoints of the social world, Neuman (2014) argues that the use of multiple theories helps researchers to identify relevant forms of data and provides a set of concepts to assist the analysis and interpretation of findings.

In the context of this study, Ribot and Peluso’s (2003) theory of Access provides an outline or blueprint for analyzing the importance of rights-based (both legal and illegal) access mechanisms as well as emphasizes how political, economic and cultural factors can enable or limit people’s ability to benefit from a resource. While the study is interested in how locals benefit from gold mining at the community level, there was a need to pay attention to the influence of external factors or actors beyond the set scale of empirical analysis. By employing

the concept of legal pluralism (see Benda-Beckmann and Turner 2018), the study approaches governance of the gold mining industry through a pluralistic lens to unearth how various actors and institutions are differently positioned with varied bundles of power across diverse scales and moments. Political ecology is a useful analytical tool for understanding the causes and consequences of uneven power relations over natural resources and the environment (Le Billion & Duffy 2018; Purwins 2020). Such triangulation of concepts/theories ensures that a more comprehensive account of the factors that condition poverty outcomes among locals in gold mining communities in Ghana is developed from the study.

Triangulation of ‘measure’ refers to the use of multiple forms of measurement to answer a research question or study a particular phenomenon (Neuman 2014). For instance, in a bid to understand the impact of gold mining on the livelihoods of locals, this study relied on a combination of the Likert scale technique in a questionnaire survey and semi-structured interviews with research participants. By so doing, the study is able to present a comprehensive picture of the impact of gold mining on the livelihoods developed from the inherent strengths of the two measurement techniques employed. Indeed, Bryman (2012) argues that a complete answer to a research question can be achieved by triangulation of measures, as the gaps left by one can be filled by another. Triangulation of the ‘method’ typically entails combining qualitative and quantitative approaches in data collection and analysis, helping to make studies richer and more comprehensive due to their complementary strengths (Neuman 2014). Triangulation of methods helps researchers to minimise the limitations and biases associated with using a single research approach (Creswell 2009). Indeed, combining quantitative and qualitative methods increases the credibility and trustworthiness of the findings (Bryman 2012; Creswell 2009). Triangulation of methods represents a helpful move away from the rigidly placed and clouded rear-view mirror qualitative-quantitative divide towards an integration of the two main research orientations (Bryman 2012; Cope 2010).

With regards to establishing the impacts of gold mining on poverty outcomes in Ghana, the objective of this research, a combination of qualitative (semi-structured interviews and document analysis) and quantitative (household surveys) methods of data collection, was employed. As argued by Cope (2010), studies that combine different methods or multiple sources of data tend to produce comprehensive findings with some explanatory power geared

toward a well-grounded production of knowledge. The triangulation of quantitative (household surveys) and qualitative (semi-structured interviews and document analysis) methods were deemed appropriate for the study because of the inherent strengths and limitations of dichotomous strategies (Castro *et al.* 2010; Teye 2012). The limitations or weaknesses of a quantitative (household surveys) or qualitative (semi-structured interviews and document analysis) method can be offset by including the other technique to benefit from its strengths. Therefore, the triangulation of methods in this study helped in providing a “confluence of evidence that breeds credibility” (Bowen 2009, p. 28).

3.5 Semi-Structured Interviews

As the primary method of data collection for this study, semi-structured (qualitative) interviews were useful in (a) evaluating the direct and indirect impacts of both small-scale (artisanal) and large-scale (commercial) gold mining on livelihoods and poverty among women and men in mining communities, (b) gaining insights on the governance of the gold mining industry and the mediating role of both state and non-state institutions, and (c) identifying the strengths and limitations of measures employed to address the adverse effects of gold mining in host communities. The choice of semi-structured interviews was informed by the value placed on allowing respondents to raise issues that the interviewer may not have anticipated. As a result, data generated from semi-structured interviews tend to be rich, detailed, and multi-layered, producing a more in-depth picture than the findings from a preset questionnaire survey or structured guide (see Brinkmann 2018; Valentine 2005). In view of the fact that semi-structured interviews are not based upon a set of relatively rigid pre-determined questions and prompts (Bryman 2012), discussions tend to unfold in a conversational manner offering participants the chance to explore unanticipated issues that are important (Longhurst 2010). In this study, the interviews needed some structure in order to ensure cross-case comparability since the research involves three unique mining communities in the Western region of Ghana, warranting engagement with both state and non-state institutions as well as business entities. Indeed, Bryman (2012) maintains that semi-structured interviewing is appropriate for multiple case study research due to the need to ensure comparability across cases.

Decisions about the mode of conducting interviews, Oltmann (2016) argues, should be thoughtfully made with consideration for the context of both the interviewer and respondent.

According to Bryman (2012), even though phone interviewing is quite common in quantitative research, it has not been used a great deal in qualitative studies. Over the years, most social science researchers perceived face-to-face interviews as the most productive mode of generating qualitative data, with other means assumed to be ‘second best’ (Holt 2010). To be specific, phone interviewing has been criticised for the absence of visual and nonverbal cues that typically inform or influence the analysis of face-to-face interviews (Holt 2010; Lechuga 2012). Notwithstanding the criticisms, this study employed a combination of face-to-face and phone interviewing techniques with respondents. While the face-to-face mode was the primary mode of interviewing for the study, phone calls were suitable for the researcher to reach respondents during situations where either party was physically inaccessible due to Covid 19 related restrictions or simply out-of-reach based on respective locations. In most cases, phone interviewing was logistically suitable, convenient and useful in facilitating increased accessibility to geographically dispersed or inaccessible respondents. Compared to face-to-face interviewing, the phone mode was less time-consuming and did not entail high financial expenses due to the elimination of the need to travel to meet up with respondents. While the face-to-face interviews are often conducted in the homes or offices of respondents, the use of phone calls allowed participants to remain unacquainted, thereby increasing privacy and providing a sense of safety (Lechuga 2012; Oltmann 2016).

In qualitative research, a lot of importance is attached to the ability of the interviewer to achieve rapport with respondents. According to Bryman (2012), it is somewhat easier to achieve rapport in the context of the face-to-face interview than through phone calls since the interviewer is unable to offer obvious visual cues of friendliness. However, the researcher utilized verbal cues (such as laughter with a lot of ‘umms’ and ‘yes’s’) to demonstrate active listening and encourage a mood of friendliness during phone interviews to minimize the loss of rapport. By combining phone and face-to-face interviews, the researcher was able to offer respondents their preferred mode of participating in the study, thereby ensuring that they were comfortable enough to actively engage in discussions. Dowling (2010) argues that power cannot be eliminated from research since it is a product of social interaction. Indeed, Mealer and Jones (2014) maintain that issues of power differentials between researcher and participant that can adversely impact the quality of discussion are easily ameliorated with phone

interviewing. By offering respondents a chance to choose between face-to-face and phone interviews, they were placed in a position of power with a bit more control over scheduling and location.

In terms of participants for the study, semi-structured interviews were conducted with two categories of respondents: key informants and local residents of the selected mining community. A key informant, Silverman (2013) argues, is a person who is knowledgeable in a research problem or topic and is willing to share his/her ideas about it. The selection of key informants was based on a combination of purposive and snowball sampling techniques (see Bryman 2012; Neuman 2014). In most cases, purposive sampling was strategically employed to select respondents who were capable of answering the research questions and possessed relevant expertise and experiences about Ghana's gold mining industry. In some instances, the researcher utilized the snowballing technique by asking sampled respondents to recommend other participants who could productively contribute to the study. A total of forty (40) key informant interviews were conducted for the study. In the three selected communities (Akango, Akyempim and Salman) for the study, key informants included current and former local government representatives as well as traditional rulers. Additionally, key informant interviews were conducted with leaders of other study-relevant communities, including Gwira-Banso and Awiebo in the Western region and Tinga in the Northern region of Ghana. The fifteen (15) interviews with community leaders were centred around the impact on livelihoods and the relevance of gold mining operations to local residents. The interviews were also used to elicit information about the newly introduced community mining scheme/programme as well as develop an understanding of how various legislations for both large and small-scale sectors are implemented on the ground. Furthermore, these interviews were useful in gaining the perspective of respondents on the development challenges of their communities as well as how to best harness the poverty-alleviating potential of gold mining operations for locals.

Besides the community leaders, other key informants interviewed for the study included state officials of gold mining regulatory agencies, public servants at municipal and district assemblies, representatives of both large and small-scale sectors of the industry, and relevant civil society stakeholders. In terms of the regulatory agencies, eight (8) interviews were conducted with officials of the Minerals Commission (MC), the Environmental

Protection Agency (EPA), Water Resource Commission (WRC), Mineral Development Fund (MDF), Precious Minerals Marketing Company (PMMC), and the Ghana Geological Survey Authority (GGSA). There were eight (8) interviews with representatives from the Ghana Chamber of Mines (GCM), Ghana National Association of Small-Scale Miners (GNASSM), Coordinating Unit of the Ghana Land Restoration and Small-Scale Mining Project (GLRSSM), Integrated Social Development Centre (ISODEC), Wassa Association of Communities Affected by Mining (WACAM), Women in Mining (WIM) and Solidaridad Network. These institutions were selected due to their in-depth knowledge of Ghana's mining industry and their work with various stakeholders. Additionally, nine (9) interviews were conducted with relevant civil/public servants at the Nzema East, Wassa East, Ellembelle, Tarkwa-Nsuaem, Prestea-Huni Valley and Bole Municipal/District Assemblies.

Interviews at the municipal/district assemblies were focused on issues regarding the contributions and challenges posed by gold mining to the development of communities, governance of the industry, as well as the level of local engagement in policy decisions and revenue allocation. The interviews at the assemblies were essential to understanding how mining communities differ from non-mining ones, as well as perceptions about the poverty outcomes of the gold industry. The interviews with state regulatory agencies were used to develop an in-depth understanding of overall governance and emerging trends in the gold mining industry. Discussions with representatives of the Minerals Commission at the national, regional and district levels were essential to understanding how poverty outcomes are mediated by community relations with actors in the large and small-scale sectors of the gold mining industry. Also, the fight against illegal mining and the position of the state on the small-scale sector with regard to community development were discussed during interviews with officials of the Minerals Commission. While discussions at the Environmental Protection Agency (EPA) highlighted the impact of laws and regulations (both current and upcoming) put in place to govern operations of both small and large-scale miners, that of the Ghana Geological Survey Authority (GGSA) were centred around governance challenges emanating from the lack of coordination among regulatory agencies as well as the adverse effects of politics on poverty outcomes.

Interviews with representatives from the Ghana Chamber of Mines (GCM) and Ghana National Association of Small-Scale Miners (GNASSM) were pivotal to understanding the experiences of companies and stakeholders from both large and small-scale sectors of the industry based on their relations with regulatory bodies and host communities. Furthermore, discussions covered the development strengths and challenges posed by the industry as well as an assessment of the poverty outcomes of each sector. Discussions at the Secretariat of the Mineral Development Fund (MDF) were focused on policies about mining revenues as well as how local communities are able to access and make use of allocated funds. Interviews with the Precious Minerals Marketing Company (PMMC) and Solidaridad Network covered issues regarding the value chain of the gold industry in Ghana as respondents shed light on the challenges faced by stakeholders as well as the role played by state and civil society groups to ensure greater engagement of locals at various stages of the chain. Discussions with the civil society groups like the Integrated Social Development Centre (ISODEC), Wassa Association of Communities Affected by Mining (WACAM) and Women in Mining (WIM) covered issues about the rights of local residents in mining communities, untapped development potential and ways to ensure greater integration of women into the gold industry in order to achieve favourable poverty outcomes.

At the community level, a total of forty-one (41) interviews were conducted with local residents; eleven (11) at Akango, twelve (12) for Akyempim, and eighteen (18) at Salman. Although an average of fifteen (15) interviews were targeted for each community, variations in the actual number interviewed were influenced by the availability and willingness of selected respondents to participate in this stage of the study. Similar to the key informants, the purposive sampling technique was employed in the selection of respondents in various communities. The selection of respondents was informed by either the occupation, cultural status or unique experiences of the participants established during the household surveys in each community. The interviews were aimed at developing an understanding of the impact (both direct and indirect) of gold mining operations on livelihoods and the challenges posed by the industry on their lives. Interviews with small-scale miners were essential to understanding the experiences and development outcomes emanating from the sector. For respondents who were not directly involved in mining activities, interviews were vital to

understanding the extent to which their livelihoods are influenced or affected by operations within the community. Discussions with workers of large-scale mining companies were useful in understanding the entry requirements and challenges faced by locals who aspire to work within that sector of the industry. The interviews were also valuable for capturing the unique set of challenges faced by women living in mining communities regarding livelihood opportunities and the level of engagement in the gold industry. Furthermore, interviews with local residents shed light on perceptions about governance and development prospects of the two sectors of the gold mining industry.

Since participation in the study was voluntary, sampled respondents had the freedom to reject the interview invitations. A total of fifteen (15) selected respondents refused to participate in the interviews across the three communities (Akango- 8, Akyempim- 4, Salman- 3). The high refusal rate at Akango can be explained by the fact that data collection in the community coincided with an incident involving the youth and security personnel of Adamus Resources which led to the murder of a young man from Bawku (see Kaku 2021). To some extent, the researcher benefited from having initially visited the community to introduce himself and seek permission for the leaders. Nevertheless, some locals in the community were a little apprehensive about participating in the study, with the researcher labelled as an undercover officer with the Ghana Police Service sent to investigate the incident. As such, some respondents refused to participate out of fear of getting into trouble despite reassurances from the researcher that the interviews were purely for academic purposes and questions about the incident were not going to be asked. Besides the general apprehension because of the incident at Akango, most of the refusals were based on time constraints and doubts about the benefits of participating in the study to their individual lives.

Most of the semi-structured interviews were audio-taped³ with the consent of respondents and later transcribed by the researcher. Transcription is seen to be a political activity in the field of qualitative research, as Bird (2005) defines it as the act of (re)presenting original oral language in written form. Since the transcriber constitutes a social and political

³ Only one interview was not audio-taped. This was because the respondent didn't give their consent to having the discussion recorded. As a result, the researcher took notes of the main issues or points made during the discussion.

being, there is a chance that any transcript produced can be influenced by their subjectivity hence the need to be critical of who engages in this phase of a study. In the context of this study, having the researcher transcribe the interviews means that he was able to relate to and understand the context of questions asked as well as the answers provided, ultimately helping to improve the quality of the transcript produced (see Brocks 2010). As emphasized by Bryman (2012), transcribing the interviews enabled the researcher to get fully immersed in the data, helping the identification of key themes and variations in the accounts of different participants.

The produced interview transcripts were subject to a combination of thematic and narrative analysis. Thematic analysis is an approach to analysing qualitative data that entails searching across a data set to identify, interpret and report themes (Braun & Clarke 2006; Nowell *et al.* 2017). On the other hand, narrative analysis is an approach that emphasizes the stories that people employ to account for their experiences or life events (Bryman 2012). Using these techniques, the interview transcripts were reviewed for an understanding of the issues discussed, with the researcher taking note of variations in the data, leading to the identification of themes relevant to the research questions. The transcripts were analysed based on themes such as employment and livelihoods, resettlement, compensations, alternative livelihood programmes, revenues and mineral royalties, and environmental degradation in order to understand how participants perceived them within the Ghanaian context in relation to the gold mining industry. With an emphasis on context, analysis of the interview data and the development of themes also considered how respondents, especially at the community level, made sense of issues or events discussed. With narrative analysis, the researcher had to be critical of the multiple meanings attached to the experiences of respondents by comparing responses to that of other participants and triangulating with additional data sources (household surveys and documents).

3.6 Household Surveys in Mining Communities

Household surveys were conducted in the three selected mining communities with the aim of evaluating the impact of gold mining on livelihoods and poverty outcomes. As argued by McLafferty (2010), household surveys are useful for gathering data on the quality of life as well as people's attitudes and opinions about social, political and environmental issues. They are typically used to provide a quantitative or numeric description of trends, attitudes, or

opinions of a population by studying a sample (Creswell 2014). In this study, household surveys were employed to obtain a summary of the impact of gold mining on livelihoods and poverty outcomes with the aim of validating the information gathered during the interviews. The surveys were conducted to provide supplementary data in order to add depth and increase the credibility of the study findings. In that light, household surveys were not geared towards achieving statistical validity in order to make inferences about the general population (see Neuman 2014).

Although the ability to make inferences was not the desired goal, a probability sampling technique was employed for the household surveys to obtain an unbiased representative sample of the population. With probability sampling, every population component has an equal or known opportunity of being selected (Bryman 2012; Jensen & Shumway 2010; Rice 2010). A representative sample is more likely to be the outcome when a probability sampling method is employed (Bryman 2012). In that regard, survey respondents were selected using the systematic sampling method where the researcher selects every k th household (e.g., third or fifth) as the centre of each community (see Brinkmann 2018; Bryman 2012; Kumar 2011; Neuman 2014). During the study, variations in the sampling interval (k th) were decided based on the researcher's perceived size of each community due to the lack of statistical data on the population in each community. For instance, the researcher selected every second house/building in a circular pattern at Akango, starting from the outermost point towards the centre of the town. Salman was a relatively bigger community hence every fourth house/building was sampled for the surveys. When a house is selected, the head of the household (the authoritative figure among a group of people who live together and have the same eating arrangement) is considered the ideal respondent for the surveys due to the expectation that they have all the relevant information on the livelihoods of each member. In the absence of the household head, any knowledgeable adult (18 years and above) was invited to respond to the survey. If an individual was busy but willing to participate in the survey, an appointment was made for the researcher to come back. During situations where the sampled household couldn't participate in the survey, the researcher proceeded to the house directly next door as a replacement. A total of 165 surveys (Akango – 48, Akyempim – 64, and Salman – 53) were completed across the three communities. Also, a total of 8 selected households

(Akango-5, Akyempim- 2 and Salman- 1) refused to participate (a 95% response rate) in the study. The high response rate can be attributed to the researcher initially securing permission from community leaders who, in turn, announced and encouraged the township to participate in the study.

All the surveys were completed by the researcher, employing a structured interviewing style since most of the research participants were unable to complete the questionnaires by themselves. The researcher used 'Twi', the most common local language in Ghana, to ask and explain the survey questions to respondents after securing their consent to participate in the study. Having only the researcher administer the surveys ensured consistency in how the questions were presented to all the respondents. As argued by Bryman (2012), it is more appropriate when each respondent is given exactly the same stimulus and context of questioning as any other participant in the survey. The surveys were used to identify the various forms of livelihoods and sources of income (including remittances) as well as how mining activities have impacted the ability of households to meet their basic needs. The surveys were also used to establish the extent to which gold mining activities have impacted various sectors of the local economy of each study location. Additionally, the surveys were instrumental in understanding local perceptions about the poverty-alleviating impact of gold mining operations in each community.

In terms of design, the questionnaire used for the household surveys entailed a mixture of open and closed-ended questions. The issue with relying solely on closed-ended questions in surveys is the risk of restricting responses of the participant to a limited set of answers (see Stockemer 2019). On the other hand, there are also concerns that responses to open-ended questions in a survey may be easily embellished or misinterpreted (Bryman 2012). In this study, the decision to combine closed and open-ended questions were informed by the researcher's interest in obtaining both quantifiable data and detailed responses on certain issues, respectively. Open-ended questions were used to obtain a diverse range of responses to the opinions of respondents. To McGuirk and O'Neill (2010), the use of open-ended questions in surveys helps to give a voice to respondents, enabling them to qualify and justify their experiences and opinions. With regard to the closed-ended questions, a Likert scale technique was adopted for the opinion-based enquiries. A Likert scale, according to Stockemer (2019),

is a frequently used ordinal variable in questionnaires which involves respondents indicating their degree of agreement or disagreement with a series of statements. In the designed questionnaire for this study, the Likert scale offered respondents the choice of three to five pre-coded responses with neutral points for each item.

Data generated from the household surveys were processed and analysed with the help of the Statistical Package for the Social Sciences (SPSS) software. All the questions or items in the questionnaire were coded and computed into the software by the researcher. The computed survey data was later subjected to univariate (descriptive statistics such as frequency tables, percentages and graphs) and bivariate analysis. Bivariate analysis is useful for uncovering the relationship between two variables. According to Bryman (2012), bivariate analysis entails searching for evidence that the variation in one variable coincides with differences in the other. Among the various methods of conducting bivariate analysis, contingency tables were employed to establish the patterns of association between variables due to the flexibility of the technique. A contingency table is basically a frequency table displaying cells of cross-tabulation that allows two variables to be simultaneously analysed to examine the relationship between them (Bryman 2012; Singh 2007). In this study, a contingency table, for instance, was useful in summarizing data on the relationship between community status (native or migrant) and confidence in how gold mining royalties are used by traditional authorities. Overall, using contingency tables and descriptive statistical methods was effective for deepening the analysis of the survey data and instrumental in verifying or validating information obtained from the interviews and documents.

3.7 Documentary Analysis: Using secondary data sources

A document, McCulloch (2011) argues, may be simply defined as a record of an event or process. According to Coffey (2014), qualitative studies can be enhanced by critical attention to the gathering and analysis of documents of various kinds and modes, both paper-based and computer-mediated. Documents can be used as a resource to get a better overall picture of the social phenomenon of interest (Silverman 2015). Documents used in qualitative research tend to include annual reports, mission statements and press releases of companies or organizations, as well as government publications such as statistical reports, Acts of Parliament, and policy instruments. As argued by Bryman (2012), state institutions provide a great deal of both

statistical and textual information of potential significance to researchers. Unlike a literature review that provides the context in which further studies take place, documentary analysis is conducted with the goal of adding data to research enquiry. Certainly, documents are a great source of both quantitative and qualitative data.

In this study, a diverse array of documents sourced from state institutions, corporations and non-governmental organizations were selected and analysed to answer the research questions. To be specific, this study reviewed policy documents, reports and publications about the gold mining industry from state institutions, including the Minerals Commission (MC), the Environmental Protection Agency (EPA), the Mineral Development Fund (MDF), and the Ministry of Lands and Natural Resources (MLNR) as well as various district assemblies and relevant ministries of interest. For instance, documents from the Minerals Commission were the source of information on mining laws and regulations pertaining to the rights of local communities within the industry. Furthermore, the secretariat of the Minerals Development Fund (MDF) provided information on the laws governing how revenues from the gold mining industry are distributed and used to address the needs of host communities of large-scale companies.

In terms of understanding the contributions of the large-scale gold mining sector to the national economy, the annual performance reports of the Ghana Chamber of Mines (GCM) were reviewed and analyzed for the study. The study also reviewed reports about the projects and activities of Adamus Resources and Golden Star Resources, which are the two mining companies with operations in the sampled communities. Documents from the Ghana Land Restoration and Small-Scale Mining Project (GLRSSM) were a great source of information on innovations and governance trends for the small-scale mining sector. Additionally, project reports and publications from organizations such as Solidaridad Network, Integrated Social Development Centre (ISODEC), and Women in Mining (WIM) were also reviewed and analysed for the study. The project reports from the Solidaridad Network shed light on various innovative ways introduced by civil society groups to improve the livelihood and poverty outcomes of the gold mining industry in local communities. With regards to women, documents from the WIM organization provided valuable information on the gender-biased structure of the mining industry. Furthermore, the study also utilized various forms of

information about events and issues regarding the gold mining industry from media sources, primarily web-based. While most of the documents reviewed and analysed as secondary data were obtained from the websites of institutions of interest, reports that were not readily available in the public domain were directly obtained from interviewed key informants.

Compared to other methods, analysing documents allows researchers to save time as well as combine data from multiple studies that otherwise would be impossible (Schutt 2012). To Mogalakwe (2009), the document analysis method is just as good and, sometimes, even more, cost-effective than in-depth interviews, social surveys or participant observation. However, a lot of caution is required when analysing documents. Bowen (2009) argues that it is essential to determine the authenticity and credibility of the selected documents. Indeed, Bryman (2012) argues that it is wrong to assume that documents reveal something about an underlying social reality. Rather, researchers need to approach documents as representations of the reality of their author(s). According to Coffey (2014), documents of all types (public or private) are versions of reality written to fulfil a particular purpose. Indeed, documents are created to express the objectives of organizations that commission them hence the need for researchers to understand how they are produced, read, shared and used (Atkinson & Coffey 2011). As a result, a lot of care was required when analysing documents from the government agencies and various stakeholders of the gold mining industry on various issues and policies. In that regard, the study relied on data from documents produced by reputable institutions or organizations, which were impossible for the researcher to generate on his own. When analysing documents, it is important for researchers to be sensitive to context while paying attention to the point of view of the author(s) (Bryman 2012). In this research, documents were employed as a means of understanding aspects of a phenomenon to support analysis with other sources of data. The importance of reflexivity is not limited to the process of analysing documents used as secondary sources of data but extends to all aspects of the research journey. Researchers are also expected to uphold high ethical standards even when analysing documents.

3.8 Ethics, Positionality and Reflexivity

Concerns about ethics, positionality and reflexivity highlight the need to approach the research process from the standpoint of the people who are the subjects of inquiry. To Hay (2010),

ethical research is carried out by thoughtful, informed, and reflexive researchers who act honourably because it is the 'right' thing to do and not just out of obligation. According to Dowling (2010), there are ethical concerns that researchers need to consider at all stages of the research process – topic formulation, selection of methods of investigations, ways of relating to participants and sponsors, as well as appropriate modes of writing and communicating results. Ethics are central to social research as it ensures that studies are not harmful to participants (Leavy 2017).

In keeping with the conditions of ethics clearance granted by Trinity College Dublin's School of Natural Sciences Research Ethics Committee (file # 2020-09), efforts were made to avoid causing any physical, psychological, or social harm to participants of this study. This was achieved by the researcher obtaining informed consent as well as protecting the anonymity and privacy of the participants of the study. Respondents were reminded that the study was an academic exercise; hence participation was voluntary, and they could thus withdraw from the study at any time. Also, the researcher explained and sought the consent of participants prior to using audio recorders during fieldwork. At the community level, participants of both semi-structured interviews and surveys were encouraged to use pseudonyms. Additionally, any personal identifiers (e.g., names, etc.) made available to the researcher were coded and/or anonymized. As such, respondents were labelled based on an assigned interview number with the name of the community or research status (e.g., Key Informant Interview 15; Salman Interview 2). However, protecting the anonymity of key informants from some institutions was much harder since there was a chance that participants might be identified by their positions and affiliations to selected organizations. In such cases, respondents were informed of this as part of the consent process and given the opportunity to withdraw their participation or refuse to answer any line of questioning that could potentially bring harm to them.

In terms of asking questions or engaging with respondents, there has been an emphasis on the need for researchers to be mindful of how their positionality can influence the research process with regard to the data collection, analysis and interpretation. Since knowledge is shaped by the people and places involved in its creation, Neely and Nguse (2015) assert that researchers must reflect on their position and how it influences the research. As argued by Haraway (1991), scholars embark on studies with maps of consciousness that are influenced

by the researcher's positionality – the unique mix of gender, race, class, nationality, and other identifiers. As a result, researchers need to be aware of their partiality in order to limit potential biases in the findings of studies. Indeed, a lot of emphasis has been placed on the influence of a researcher's subjectivity. Subjectivity denotes the insertion of the researcher's personal opinions and perspectives into the research (Dowling 2010). In essence, the researcher was aware that his positionality and subjectivity – as a male Ghanaian belonging to the Ga Adangbe ethnic group and raised in Accra, with pre-existing in-depth knowledge or understanding of the gold mining industry – might influence the research process and outcomes of the study.

Qualitative researchers place emphasis on subjectivity because conducting a study entails social interactions that draw on their personal resources to establish rapport with respondents (Dowling 2010). Certainly, McDowell (2010) argues that the research process is best seen to be more of a collaboration between the parties involved than an interrogation. Since most studies depend on analyzing dialogue between two parties, the researcher's personal characteristics and social position – elements of their subjectivity – cannot be fully controlled or changed. To Dowling (2010), interactions between the researcher and his participants, including the ways each party perceives the other, are partially determined by societal norms. In the context of this study, the researcher's ability to approach and invite respondents was mediated by institutional and customary norms in Ghana. For instance, most institutions require the researcher to submit an introductory letter to the head of the organization, who will then approve and assign the invitation to participate to an official most suited for the study. In such cases, the respondent may have some preconceived notions about the researcher, possibly influenced by the directives received from his superior. At the community level, customary laws stipulate that you don't visit or approach the traditional rulers empty-handed. As such, the researcher had to present a bottle of Schnapp and a monetary token when introduced to the chiefs of every community visited.

Besides the fact that interactions were mediated by institutional and customary norms, the research process was influenced by power relations between the researcher and participants. Since research is more of a collaboration between two parties (McDowell 2010), there is a need to pay attention to the influence of power, which is embedded in social interactions (Dowling 2010). In this research, there were changing power dynamics between

the researcher and the participants. For instance, the social position of the researcher as a PhD student placed him on the lower end of the power spectrum during interactions with representatives of institutions and organizations. However, the researcher's positionality as a Ghanaian studying abroad influenced how he was perceived by respondents. At the community level, the researcher was placed on the upper end of the power spectrum in the eyes of the local participants due to the fact that he is coming from Accra, the national capital, and is affiliated with an institution outside the country. Consequently, the researcher was prone to using the reference 'Sir' during interviews with key informants from the relevant institutions as a sign of respect for their social position. On the other hand, some of the respondents at the community level addressed the researcher as 'Sir'. It was important for the researcher to take note of how the changing power dynamics among various participants influenced the research process. Probst and Berenson (2014) maintain that one needs to be aware of the researcher's influence on what is being studied and, at the same time, how the research process affects the researcher.

Being reflexive highlights the need for constant self-scrutiny of the research process and turning back on oneself in order to recognize and negotiate the power relations (Dowling 2010; May & Perry 2014). By emphasizing the need to be reflexive, scholars assert that particular characteristics and their relationships to the broader terrain of power must be accounted for in all aspects of the research process, from design to participant access, data collection, analysis and production of knowledge (Neely & Nguse 2015; Sultana 2007). This is to say that the need to be reflexive is not limited to accessing participants and data collection but transcends the entire research process. As argued by Probst and Berenson (2014), reflexivity may be more crucial than ever because the impact of personal bias and unequal power in research can be neither ignored nor 'controlled for'. In this study, being reflexive about the researcher's position and the unequal power relations and triangulating various data sources were crucial steps taken to ensure the credibility of the research findings.

3.9 Conclusion

Conducting a study entails a myriad of decisions and choices to follow a set of systematic processes of gathering information to answer or address the research objective. This study sought to examine the poverty outcomes of gold mining on local people at the community

level in Ghana. Consequently, a qualitative approach was chosen as the most appropriate way of developing an in-depth understanding of the poverty outcomes of the gold industry through case studies of three mining communities (Akango, Akyempim and Salman) in the Western region of Ghana. Based on the objective of the research, the study triangulates data from semi-structured interviews, household surveys and document analysis geared towards producing comprehensive findings. Triangulation of these data sources was necessary as a means of obtaining an in-depth understanding of the factors that condition the poverty outcomes of the gold mining operations among locals at the community level. Additionally, triangulating data sources helped to increase the credibility of the research findings. By employing a qualitative approach using the case study design, this study is expected to shed empirical light on concepts like the research curse thesis. The ensuing chapters present an in-depth analysis of the developmental and poverty outcomes of the large and small-scale mining sectors of Ghana's gold mining industry.

Chapter Four

Large-Scale Gold Mining and Poverty Outcomes in Ghana

4.1 Introduction

The enclave development of extractive industries and various dimensions of the ‘resource curse thesis’ point to the challenge of translating resource endowment into poverty reduction (Bebbington *et al.* 2008; Ferguson 2005). Nevertheless, governments, extractive companies, and many development agencies remain optimistic about the potential of natural resource exploitation positively contributing to poverty reduction. There is no evidence of a ‘universal’ effect of extractive industries on poverty (Gamu *et al.* 2015), hence the importance of contextualization of assessment. Any assessment needs to recognize how the scale, type and mode of natural resource exploitation affect the poverty and development outcomes of extractive activities.

Over the years, Ghana’s gold mining industry has grown and expanded following an injection of investment since the Structural Adjustment period in the 1980s (Bloch & Owusu 2012), which has translated into the nation becoming the largest producer in Africa (Boafo *et al.* 2019). Large-scale mining companies tend to highlight their potential poverty-reducing effects through employment, local procurement, the provision of public goods and physical infrastructure (Dashwood 2012). However, Gamu *et al.* (2015) maintain that the impact of large-scale mining on poverty tends to be negative, especially when local residents of host communities lack a voice. With a focus on host communities, this chapter empirically evaluates the development linkages and poverty outcomes of large-scale gold mining in Ghana. Since an individual or household is said to be living in poverty when they lack adequate and sustainable access to income and resources to meet basic needs, analysis of the outcomes of large-scale mining covers both employment or economic issues and the provision of relevant social infrastructure or services.

The rest of the chapter is organized into seven main sections. The first section after this introduction discusses the contributions of the large-scale mining industry to Ghana’s development at the national level. The section highlights the attempt to retain revenues from the industry in the country and discusses how the poor state of Ghana’s economy has limited the development of linkages. This is followed by an analysis of the poverty outcomes of the

industry on host communities at the local level in the second section. The section provides an empirical analysis of the experiences of local residents in host communities of two mining companies in Ghana; Adamus Resources and Golden Star Resources. Using interview narratives, coupled with household survey data, various activities and issues related to large-scale gold mining – including direct employment, livelihood and economic impact – are reviewed and analysed to establish how they contribute to poverty reduction or production. In line with the capital-intensive nature and enclave status of extractive industries (see Ferguson 2005), it is revealed that linkages to the local economies are poorly developed, and the limited availability of employment opportunities is a source of frustration to many in host communities. The third and fourth sections of the chapter entail a review of measures often undertaken by large-scale mining companies to mitigate the adverse effects of their operations on host communities as part of their CSR. It is argued that the implementation of alternative livelihood projects has been largely unsuccessful due to poor planning and lack of buy-in, as well as local preference to secure jobs with the mining company, among others. It is also revealed that local residents in host communities remain dissatisfied with the level of infrastructural development provided by mining companies. Local residents highlight the fact that providing schools and other basic amenities without access to adequate and secure income achieves very little in terms of reducing poverty created by land dispossession and deprivation from large-scale mining operations.

On the part of the Ghanaian state, the usage of mineral royalties to address development challenges in host mining communities is examined in the fifth section. Despite the allocation of mineral royalties for their development, it is revealed that host mining communities remain poor in Ghana due to inadequacies in the Mineral Development Fund (MDF) Act 912. There is a lot of confusion surrounding the purpose of payments to chiefs and traditional councils, as well as issues of accountability from the district assemblies that are supposed to spearhead local development. The discussion about the usage of mineral royalties is followed by a review of the implementation of Ghana's compensation and resettlement laws in order to assess its effectiveness in reducing poverty among local residents in the sixth section. It is argued that the poor level of monitoring and evaluation of compensation and resettlement programmes has

contributed to the marginalization and deprivation of local residents affected by large-scale mining operations.

In the final section, it is argued that the development outcomes of gold mining at Salman and Akyempim reinforce arguments about the enclave nature of capital-intensive extractive industries, evident in the limited linkages to local economies. The contrasting experience of local residents in the case studies highlights the importance of situated and contextual analysis of development outcomes of extractive industries. The fact that extractive activities are governed by the same sets of laws does not mean that development outcomes are going to be the same, but are rather mixed based on situated factors such as differences in the corporate culture of mining companies.

4.2 Footprint of Large-scale Gold Mining Industry in Ghana

Despite references to the enclave nature of extractive industries (Bontadini & Savona 2019; Ferguson 2005), the status and influence of the large-scale gold mining sector in Ghana are quite substantial as it has a significant impact on the nation's development trajectory. According to an official from the Minerals Commission, the sector is one of the backbones of the Ghanaian economy, so gold mining was strategically left out of measures introduced to curtail the COVID-19 pandemic in 2020.⁴ Besides the overall contribution of the gold mining industry to Ghana's GDP and export earnings, the large-scale gold mining companies provide three streams of revenue to the government, namely corporate taxes on profits, income tax/Pay As You Earn (PAYE) receipts from employees and mineral royalties (see table 4.1 for a summary). Based on data from the Ghana Chamber of Mines (2021a), the nation generated US\$ 305.60 million in 2020 as corporate taxes on profits from large-scale mining companies – a slight decline from the US\$324.25 million generated in 2019.⁵

⁴ Key informant interview 1, January 2021.

⁵ Estimated revenues may include taxes paid by bauxite, manganese and other extractive companies but the gold provides the largest share of income from minerals to the government (Ghana Chamber of Mine 2021a).

* Revenues in US\$ computed using the exchange rate of US\$ 1 = GHC 7

Year	Currencies	Revenue Streams			Total
		Corporate Taxes	Income Taxes	Mineral Royalties	
2018	GH¢	1.20 billion	457.16 million	705.26 million	2.36 billion
	US\$*	171.37 million	69.71 million	100.75 million	337.14 million
2019	GH¢	2.27 billion	736.26 million	1.01 billion	4.02 billion
	US\$*	324.25 million	105.18 million	143.81 million	573.24 million
2020	GH¢	2.14 billion	641.86 million	1.39 billion	4.17 billion
	US\$*	305.60 million	91.70 million	198.75 million	596.05 million

Table 4.1: Fiscal revenue streams from the mining industry.

Source: Author's construct based on Ghana Chamber of Mines (2021a).

While corporate taxes fell, there was a considerable rise in mineral royalty⁶ receipts from US\$ 143.81 million in 2019 to US\$ 198.75 million in 2020, an increase of 38.2% (Ghana Chamber of Mines 2021a). The significant increase in mineral royalty can be attributed to the rise in the gold price in 2020, despite the drop in production by 12.1% – Ghana's highest year-on-year decline since 2004 (Ghana Chamber of Mines 2021b). The rise in gold prices during the pandemic was not surprising as the commodity functions as a safe haven investment, even in extreme financial market conditions (see Aruga & Kannan 2020). During the study, it was revealed by the interviewee with the Secretariate of the Mineral Development Fund (MDF) that so far, only large-scale gold companies pay royalties to the government on a regular basis despite the laws of Ghana requiring mineral extracting organizations (including quarrying and sand winning) to make payments.⁷ The gold sector provides about 92% of Ghana's mineral royalties (Asare 2022). According to the respondent from the MDF Secretariate, the non-payment of mineral royalties by the other extractive sectors (such as quarrying, limestone, salt and sand winning) can be attributed to the misinterpretation of the law.⁸ However, following the establishment of an inter-agency framework and task force in December 2021 to secure royalties from operators in quarrying, limestone, salt and sand-winning sectors, an upturn in payments is expected by the end of 2022 (Asare 2022).

The third stream of revenue to the government comes from income tax (PAYE) receipts of employees from the sector, as Ghana received an estimated US\$ 91.70 million in 2020, a

⁶ Royalty payments are calculated based on a percentage (ranges from 3 to 5%) of mineral revenue accrued to the mining companies.

⁷ Key Informant Interview 10, March 2021.

⁸ Key Informant Interview 10, March 2021.

decline from the US\$ 105.18 million earned in 2019 (Ghana Chamber of Mines 2021a). It is important to note that an estimated 77.1% of Ghana’s employed population 15 years and older are found in the informal sector (see GSS 2021a). In that regard, the government has a limited pool in terms of generating domestic revenue from PAYE receipts. This is to say that within the limited pool of options, the revenue contributions from the large-scale gold mining sector are important to the government. Putting the fiscal contributions of the industry into perspective, table 4.2 presents the percentage of direct domestic revenue obtained from a selected number of sectors. Based on available data, the mining sector contributes about three times more than manufacturing, highlighting the extent to which Ghana is dependent on the extractive sector for domestic revenue mobilization. Successive governments have not been successful in altering the colonial dependence on the export of raw materials such as gold and cocoa; hence the manufacturing base remains weak and underdeveloped (see Baah-Boateng & Twum 2020; Whitfield 2018).

Sector	Percentage Of Total Domestic Revenue			
	2017	2018	2019	2020
Agriculture, hunting and forestry & fishing	0.5%	0.6%	0.5%	4.2%
Mining and Quarrying	16.3%	14.2%	18.4%	18.1%
Mining Support Service	5.5%	7.3%	6.7%	5.2%
Manufacturing	5.2%	7.6%	4.8%	5.2%
Wholesale and retail	15.5%	16.2%	6.3%	5.8%
Communication	5.7%	3.8%	5.8%	7.8%
Public Administration and Defence	9.9%	13.5%	14.7%	15.6%

Table 4.2: Contributions to Direct Domestic Revenue by Sector (2017 – 2020).

Source: Adopted from Ghana Chamber of Mines (2021a).

In line with the capital-intensive nature of large-scale gold companies, the employment figures are not as high as that of the small-scale mining sector (see Gough & Yankson 2012). As of the end of 2020, the total workforce population of the producing member companies⁹ of the Ghana Chamber of Mines stood at 34,363, comprising 444 expatriates and 33,919 Ghanaians (Ghana Chamber of Mines 2021a). The 444 expatriates in the sector represent 1.3% of the total workforce and are contrary to discourses about large-scale companies hiring many

⁹ All the producing member companies of the chamber, except the Ghana Manganese Company Limited, are into the extraction of gold.

expatriates. With the promulgation of the Minerals and Mining (Local Content and Local Participation) Regulations (L.I. 2431) in October 2020, the proportion of expatriates in the sector is expected to reduce with time. Based on the Legislative Instrument, L.I. 2431 (2020), mining companies are expected to train Ghanaians to take up roles over time and are only allowed to recruit an expatriate for a position when they cannot find a local person with suitable qualifications and experience.

Closely tied to the local content regulations and as a testament to contributions to the larger Ghanaian economy, it was established during the interview with a representative of the Ghana Chamber of Mines that the large-scale mining companies endeavour to prioritize sourcing inputs from manufacturers and suppliers in Ghana, stimulating linkages across different sectors.¹⁰ As argued by Ramdoo (2015), the push for local content policies highlights the hope that mining companies can create more value in the Ghanaian economy. Based on available data, the large-scale mining companies spent USD 4.387 billion in Ghana, an estimated 85.7% of their expenditure retained in the country in 2020 (Ghana Chamber of Mines 2021b). It is worth pointing out that the quoted amount of expenditure retained in Ghana includes payments to manufacturers and suppliers of goods and services, taxes, workers, and financing of social investment projects. Indeed, available data from the African Development Bank (AFDB) shows that mining companies typically spend and contribute, on average, 15–20% of their expenditures on royalties and taxes and 50–65% on employment, infrastructure, and procurement (AFDB 2016).

Notwithstanding efforts made to retain revenues in the country, a deeper dive into the true origins of locally sourced inputs shows that the contributions to the local economy are limited. Speaking with respondents about the linkages of large-scale mining companies to other sectors of the economy, the representative from the Ghana Chamber of Mines and a Policy Analyst with the Integrated Social Development Centre (ISODEC) argued, respectively:

But of course, 85% is not just pure manufacturing. You know, there are people who will buy from abroad and then sell to the mining companies... so, for instance, we have a company that produces, say, grinding media or steel balls. If the company imports from China and then maybe sell it to the mining company, as far as the mining company is

¹⁰ Key Informant Interview 9, March 2021.

concerned, it is buying that input from a Ghanaian-registered entity. But if you look at the very backing of the product, it did not originate from Ghana. The product originated from, let's say, China or Ukraine. But, of course, there is an intermediary with a Ghanaian identity. So, if you are counting that, we will say it was sourced locally. But if we are looking at it in terms of value-added, then potentially, maybe about 90 to 98% of the value added would have originated from the producing country, say, in this case, China or Ukraine (Key Informant Interview 9, March 2021).

We passed the local content regulations and moved on to develop a list of about 28 mining inputs that, by law, are required to be procured from within the Ghanaian economy. The rationale is that if Ghanaians will take advantage... by setting up factories to manufacture them and supply them to the companies. Those supply companies will be able to employ other Ghanaians and, therefore, provide them with reliable income and reduce poverty...Thank God some companies are taking advantage. For instance, Interplast Limited; it's a major supplier of PVC pipes to large-scale mining companies. Unfortunately, a lot of the items on the mining list, the majority of them, are not manufactured locally. They are given to Ghanaians alright as a contract. Then, they head to China to go and bring those items to supply to the mining companies. What they are doing by that action is that they are shipping jobs to China (Key Informant Interview 31, June 2021).

The interview transcripts presented highlight the limitations of acquiring mining inputs from local sources. Indeed, the fact that inputs are locally sourced does not mean that the Ghanaian economy receives most of the benefits. As a matter of fact, it points to the fact that the supposed retention of revenues through expenditure might be far less than estimated, given Ghana's limited manufacturing sector. Additionally, the expected multiplier effect of creating jobs in other sectors of the economy is limited since most of the inputs are imported. Only an estimated 6.7% of Ghana's employed population aged 15 years and more can be found in the manufacturing sector (GSS 2021a). This is consistent with Melia's (2015) argument that resource-rich countries like Ghana find it difficult to link extractive industries to other sectors due to the limited structural transformation of economies away from primary production and petty services.

The structure of Ghana's economy is very similar to the one inherited at independence in 1957. According to Whitfield (2018), the economy is best described as shallow "in terms of what has been produced domestically and the production capabilities of local firms; narrow in terms of the basket of exports and their complexity; thin in terms of linkages within the economy among domestic producers of intermediate goods and services" (p.3). Recent policy

initiatives to locally source inputs have only resulted in a change in the suppliers to mining companies, not the places of origin of acquired supplies. While some value is captured by traders, the limited gains of locally sourcing inputs, in terms of employment and value-added, underline the need to be critical of Bloch and Owusu's (2012) assertion that backward linkages of the large-scale mining industry to the Ghanaian economy have increased. Established backward linkages in the economy include a number of well-known international OEMs such as Atlas Copco, Sandvik, Liebherr, Mantrac/Caterpillar, as well as input suppliers and distributors like Castrol, Maxam, Carmeuse Lime Products and Riepcos (Bloch and Owusu 2012).

In terms of consumptive linkages, large-scale gold mining companies in Ghana contribute to socio-economic multipliers through the development of human resources and the provision of infrastructures such as schools, electricity, water, clinics, and roads. For instance, available data shows that mining companies spent US\$ 1.71 million on education, US\$ 2.48 million on health and US\$ 9.31 million on roads in 2020 (Ghana Chamber of Mines 2021a). The low amount of revenue spent is consistent with the African Development Bank's estimation that mining companies typically spend 1% of their expenditure on social investment (AFDB 2016). Notwithstanding the low amount spent, mining companies are important development partners to the government of Ghana, helping the state in the provision of various types of infrastructural facilities and social services. Table 4.3 presents a summary of some socio-economic contributions of producing members of the Ghana Chamber of Mines from 2015 to 2020.

Socio-economic contributions	2015 (US\$)	2016 (US\$)	2017 (US\$)	2018 (US\$)	2019 (US\$)	2020 (US\$)
Education	4.88 mil	1.30 mil	2.26 mil	1.63 mil	1.63 mil	1.71 mil
Health	1.25 mil	1.19 mil	1.62 mil	694,869.06	1.10 mil	2.48 mil
Electricity	368,239.52	396,225	407,087.71	353,329.42	367,372.19	257,132.64
Roads	1.17 mil	3.30 mil	7.78 mil	15.11 mil	14.61 mil	9.31 mil
Water	677,889.62	343,497	395,808.93	495,698.12	168,210.33	293,234.52
Housing	75,357.93	508,729	88,258.81	414,773.93	290,734.58	196,093.10
Agro-Industry	-	-	27,702.10	2,053.39	3,344.07	150,862.73
Agriculture	83,685.72	54,097	219,998.67	819,221.70	626,102.46	452,070.68
Sanitation	242,125.46	208,555	235,058.29	133,275.00	195,450.38	137,201.44
Resettlement Action Plan	4.81 mil	3,380	2.11 mil	21,681.27	28,695.55	4,084.27
Alternative Livelihood Projects	960,471.14	489,250	462,145.28	173,807.87	380,633.51	735,022.59

Table 4.3: Socio-Economic Contributions of Producing Member Companies of the Chamber
Source: Ghana Chamber of Mines (2021a)

It is interesting to note how mining companies have spent a lot of money on roads, amounting to over US\$ 15 million in 2018 (Ghana Chamber of Mines 2021a). According to Kwarteng *et al.* (2018), most of the road networks in rural Ghana are deplorable and not accessible, especially during the rainy seasons. As a result, provisions for road infrastructure have been a major component in the development agenda of Ghana and often take about a third of the infrastructure budget.

Definitely, roads are integral to the operations of mining companies; hence it is understandable to see such significant investments in transport infrastructure. However, it is worth acknowledging that the benefits of passable roads tend to go beyond the immediate benefit of the company as such projects facilitate the expansion and development of rural communities, opening up previously inaccessible areas to wider opportunities within the region. A noteworthy example was cited during the study when a Development Planner explained that Gold Fields Ghana Limited was responsible for the construction of the 33 km

highway from Bogoso Junction – Damang in the Western region of Ghana, benefiting up to eight communities along that stretch.¹¹ Explaining Gold Fields’ rationale for investing in the road, the Program Manager with the Solidaridad Network argued that:

... the idea was that it was going to be easier to transport workers from Tarkwa to the Damang mine because Damang is not fully developed and did not seem to have enough accommodation. So, most of the workers in the Damang mine live in Tarkwa and commute every day but the road was in very bad condition. They gave pressure to government to construct the road, and it never worked, so they decided to do that themselves, and that really helped. What happened was that it has opened up the whole area. Now, people are constructing lots of houses along that stretch because they have a high-class road running through that area... it takes about 15 mins to transport workers from Tarkwa to Damang but initially, it took them 45 minutes to an hour to do that. They were having issues with their buses because of the nature of the road. So now, they have saved lots of money from that (Key informant interview 8, February 2021).

The 33 km highway construction was probably the biggest investment made by a mining company in the country. While such capital-intensive highway projects have mostly been the responsibility of the government, the development planner argued that other mining companies are working to construct other major roads that are integral to their operations,¹² explaining the rise in expenditure on roads from 2016 onwards (as shown in Table 4.3). As argued by Ackah-Baidoo (2012), the onus of providing basic infrastructure in mining regions tends to fall on multinational companies, especially in the absence of government-initiated development projects.

Consistent with Bloch and Owusu (2012), forward linkages in terms of processing prior to export remain weak and limited. Ghana is unable to directly trade gold internationally because domestic refineries lack accreditation; hence the Rand Refinery in Germiston, South Africa, is a common destination for gold produced by large-scale mining companies before they are sold on the world market (Bloch & Owusu 2012). While LBMA accreditation is a priority for the Government, securing certification has been difficult for the country due to the cumbersome nature of the requirements set by the Organisation, such as the need for refineries to have worked continuously for three years while lacking the authorization to sell to trade on the world market (Edubi 2022). The absence of the LBMA certification has hindered Ghana’s

¹¹ Key Informant Interview 25, March 2021.

¹² Key Informant Interview 25, March 2021.

ability to participate in the entire gold value chain at the global level. According to the representative of the Ghana Chamber of Mines, the lack of LBMA accreditation means that even when the gold is refined in Ghana, it cannot be sold at the international market price because there are no means of verifying the accuracy of listed amount and purity of the precious metal.¹³

While the contributions of mining companies to Ghana's development at the national level are obvious in terms of fiscal and other linkages, the impact of the industry on host communities is an entirely different story. In the words of a Minerals Commission official and a respondent with Wassa Association of Communities Affected by Mining (WACAM – a human rights and environmental mining advocacy NGO), respectively, '*for mining communities in Ghana, none of them is satisfied as far as I know;*'¹⁴ '*they do not see development as they would have wished.*'¹⁵ Indeed, none of the key informants of the study could identify a single mining community that is satisfied with the level of development or contributions of large-scale gold mining companies in Ghana. Limiting analysis of the contributions of large-scale gold mining at the national scale is too simplistic a means of developing an in-depth understanding of the usefulness of the industry. The impact of large-scale companies on local residents is significant, as the introduction or presence of gold mining operations has social, economic and environmental implications on host communities. In that light, an assessment of the livelihood and poverty outcomes of the industry at the host community level is warranted in order to decipher the merits and challenges presented by large-scale gold mining companies as a result of their proximity to extractive activities. The host communities are the focus of the empirical analysis of this study because they are the most significant scale to assign attribution of natural resource exploitation to poverty production, exacerbation, or reduction due to their proximity and constant interaction with extractive activities.

¹³ Key Informant Interview 9, March 2021.

¹⁴ Key Informant Interview 23, March 2021.

¹⁵ Key Informant Interview 3, January 2021.

4.3 Poverty Outcomes of Large-scale Mining on Host Communities

While large-scale gold mining companies may exacerbate poverty by displacing local populations and livelihoods, they can also operate as agents of development, providing the needed investment to finance public infrastructure and job opportunities with various linkages to the economy. To understand the contributions of gold mining to poverty alleviation, sampled survey participants for the study were asked for their assessment of the impact of large-scale operations in their respective communities. Cumulatively, about 60% of the study respondents across the two communities (Salman in the case of Adamus Resources and Akyempim in relation to Golden Star Resources – see figure 4.1) indicated that large-scale gold mining operations had worsened the incidence of poverty to a certain degree.

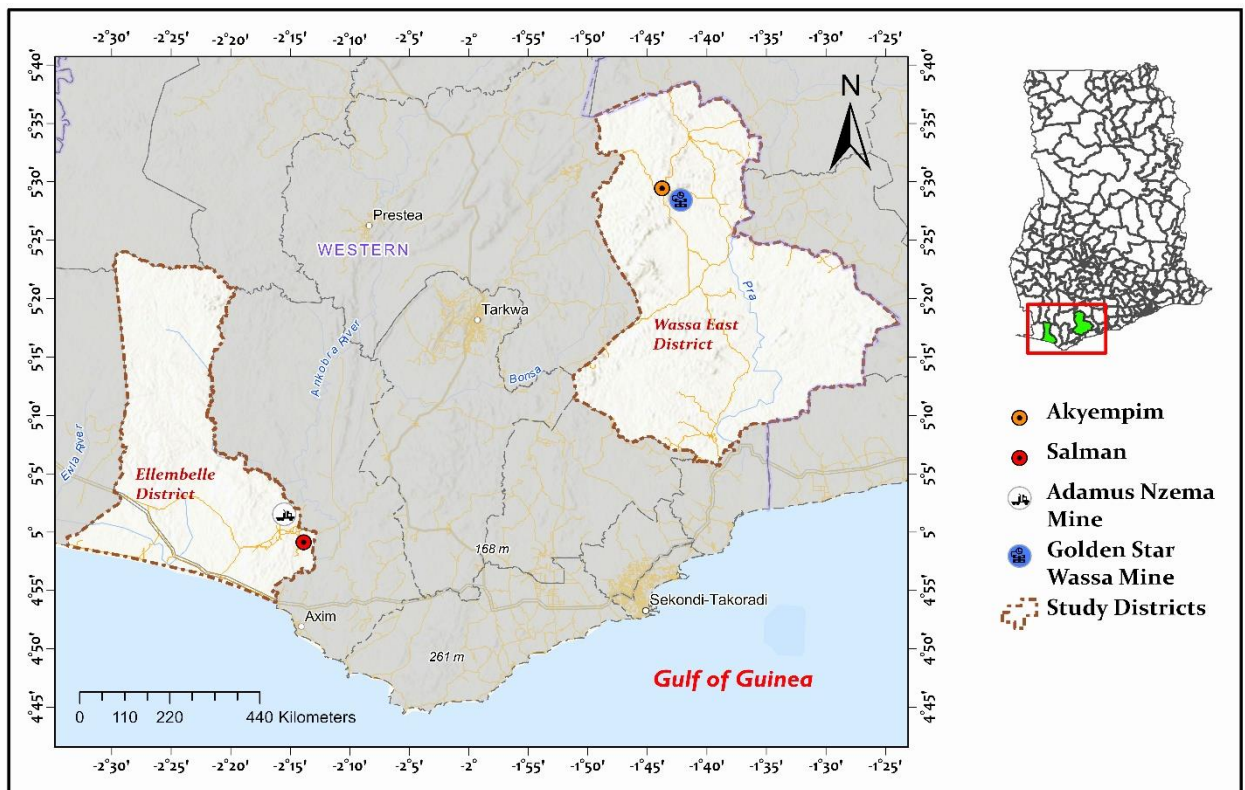


Figure 4.1: Map showing Salman and Akyempim.

Source: Author's Construct.

Instead of benefiting from the trickle-down effect of mineral exploitation, various local residents are pushed into poverty following land dispossession. Given that local perceptions about the impact of large-scale mining may not be accurate and too simplistic, assessment of the poverty outcomes needs to consider dimensions of deprivation, marginalization,

vulnerability and powerlessness. To make a detailed assessment of the livelihood and poverty outcomes of large-scale mineral extraction on communities, it is important to review various aspects of the activities associated with the operations of gold mining companies. Using the communities of Salman and Akyempim as specific case studies, this section examines opportunities for direct employment in the large-scale sector as well as the wider impact of the industry on livelihoods and economic activities, which go a long way to shape or influence the living situation of locals and ultimately, poverty outcomes on the ground.

4.3.1 Issues about Employment into Large-Scale Industry

The introduction of large-scale operations is often accompanied by the expectation that local residents can secure gainful employment with mining companies (Hilson & Maconachie 2009). However, the realities on the ground do not always follow the expectations of local residents in the host communities. It was established during the study that the expected level of employment with large-scale companies is not realized in the host communities and is an ever-present issue that was raised by locals in their assessment of the industry. In a discussion with an official of the Community Relations Unit of the Mineral Commission about unemployment and the disconnect between expected and actual employment opportunities, he argued that:

... before the mining company came in, they were living on the land. Now the land has been taken from them. The mining company usually promises some employment but the fact that they can't employ everybody. They cannot employ even 50%, maybe, even 20%... and sometimes, this ginger [motivates] some of the youth to rise up against the mining company (Key Informant Interview 37, August 2021).

The narrative highlights the disparity between community expectations and realities about the employment capabilities of large-scale gold mining. In Ghana, it is common practice for mining companies to announce or publish job openings in the host communities and give priority to hiring locals over applicants from outside their catchment area. However, there are considerable variations in the employment situation across host communities, mainly conditioned by the relationship and agreement with the mining company. With regards to the situation at Salman in the Ellembelle District, a youth leader argued that the community's relationship with Adamus Resources had deteriorated over the years to the extent that the company tends to employ outsiders before publishing the job opening in the community,

rendering local applications useless.¹⁶ Sharing their frustration about the lack of jobs with the mining company, some locals stressed during the community interviews that:

When they want to employ people, they bring a notice, and you will apply but won't get called. They know that if they don't publish that they are recruiting, the community will demonstrate against them... Recently, they said they will employ 12 people for the tipper trucks. The communities that are affected by their operations are Salman, Akango, Anwia, Bokazo, Nkroful and Kikam. That is six in total, so two from each. They brought the forms and we applied. As a community where their tailings dam and plants are located on our land; there are about 6 mining pits here. But they didn't even employ one person from this community. If you are to investigate, you will be told they employed someone from this community (Salman Interview 3, March 2021).

We are suffering because the company resettled us to this place and are only employing outsiders to work with them. There are things I can do, but they are not giving me a chance. My brother fought to get employed but to no avail. My brother now lives at Takoradi (Salman Interview 18, March 2021).

As evident from the narratives presented, the limited amount of employment by Adamus Resources is a major source of frustration for the people of Salman. Their frustration is compounded by the fact that about 60% of the company's concession was acquired from the community hence the hope that a greater percentage of the employees of Adamus will come from Salman.¹⁷ The majority of the respondents (about 90%) acknowledged that while there are job openings advertised in Salman, it is very difficult for locals to get employed, citing the corrupt practice of selling employment opportunities to outsiders as one of the reasons. It was also established that the few community members who get employed have very little job security. Speaking to a former driver for Adamus, he argued that:

... you go to the company, and the community members are few. When there is redundancy, it is the few community members who are affected. Now, when you get employed, you are made casual, not permanent. Also, they don't give a one-year contract anymore; it's just six months. The contracts hardly get renewed after six months (Salman interview 3, March 2021).

On the one hand, the lack of job security highlighted by the respondent is consistent with the strategy of mining companies relying on subcontractors and casual workers as a means of reducing costs as well as handling commodity price fluctuations on the world market to

¹⁶ Key Informant Interview 20, March 2021.

¹⁷ Key Informant Interview 15, March 2021.

maximize returns (Verbrugge & Geenen 2020). On the other hand, the narrative highlights a limitation in the labour laws of Ghana in ensuring that casual workers are able to secure permanent positions after a specific period (see Government of Ghana 2003). The sentiments of the former driver were echoed by another respondent who had worked as a casual worker for Adamus for almost ten years without an offer to be made permanent.¹⁸

In the case of Akyempim and Golden Star Resources in the Wassa East District, recruitments by the mining company are guided by conditions and agreements stipulated in the Memorandum of Understanding (MOU) signed with catchment communities. As a form of local content policy, the MOU was signed in 2019 with the hope of ensuring peace after years of intermittent agitation by local residents in the catchment of Golden Star Resources (Annim 2019). Providing details of the MOU, a Community Relations Officer with the Mineral Commission argued:

... every community has committees for employment, relationship and sustainable livelihoods. They have a development foundation which is in charge of the building of social amenities. Then, they have local employment and contracts. These are things that they have taken pains to draft, and they signed the MOU with the host communities and this is what they are going to do. They set the money aside so the various committees will have portions of the money every year for development. And they have committees that will work on the job vacancies. So, with Akyempim, I don't know how it will pan out. But for now, they have set some road map to direct some benefits to the host communities (Key Informant Interview 37, August 2021).

As shown in the narrative, the MOU provides some form of roadmap of how the community can directly benefit from the presence of the mining company. The MOU covered numerous aspects of the community's needs, with employment being one of the main issues, with stipulations clearly spelt out for Golden Star. Prior to the signing of the MOU, the mining company did not prioritize employing directly from the host community. The recruitment of locals improved considerably with the signing of the MOU.

Before the MOU, in actual fact, the company did whatever they wanted. We occasionally get stuff from them; we get leftovers when they are satisfied from eating. That was how we saw it but they always denied such allegations. When they are employing, they will do it on their own to an appreciable level before making the community aware of

¹⁸ Salman Interview 1, March 2021.

opportunities. But since we did the MOU, even if they are doing that, they are a little bit fearful (Key Informant Interview 28, April 2021).

To ensure that recruited individuals are from catchment communities, applicants are required to submit their applications with endorsements from community leaders (chiefs, elders or assembly members). As a matter of fact, it is a norm that job applicants have their applications endorsed by community leaders as a means of ensuring that mining companies are employing natives who originate from their catchment area in Ghana. This recruitment policy is the same for communities like Salman, who do not have any form of a written agreement or MOU guiding their relations with Adamus Resources. It was established during the study that this arrangement places a lot of power in the hands of chiefs and local leaders. Out of recognition of their status as custodians of the land they operate on and their revered status among locals, mining companies use chiefs as their first point of contact when dealing with host communities, especially with regard to publishing job openings.¹⁹ This is consistent with Ribot and Peluso's (2003) assertion that opportunities to benefit from resource extraction are often mediated by non-state actors such as community leaders and chiefs who selectively allocate access along social identity lines. In both communities, respondents lamented that the limited employment in large-scale companies was partly due to the actions of their leaders.

It is easier to get a job if you are not a native. This is simply because you will be asked to pay money. The person in charge will ask for some amount of money before the leaders will stamp your application to the community. For those of us living in this community, out of fear that you will speak out, they will not demand money from you. But for the outsiders, it is easy to demand money. They end up selling the employment opportunities, especially the chiefs. You will find someone who is not from this community but they will place a stamp on his letter indicating that he is a native of the community. Meanwhile, there is a native who is qualified for the job but has been ignored (Akyempim Interview 12, May 2021).

I blame the chief. When the company says it is looking for a number of people from the community, he will go and bring people from Tarkwa and Kumasi, take money from them and submit their names to the company. Because of that, the community is not on good terms with the chief (Salman Interview 13, March 2021).

On the one hand, the narratives highlight the difficulties faced by both natives and non-locals in securing employment with large-scale mining companies. For non-locals, their ability

¹⁹ Salman Interview 3, March 2021.

to offer money to community leaders gives them an upper hand in securing employment. As argued by Ribot and Peluso (2003), different circumstances or mechanisms alter the terms of access and consequently change an individual or group's ability to benefit from resource exploitation. On the other hand, the quotes show how community leaders tend to abuse their power, utilizing their position for financial gains at the expense of locals who have lost their farmlands to mining companies. Local leaders use their position of power and influence to seek rent from job applicants. Not only do chiefs and other community leaders wield power and control over employment opportunities, but they are often given contracts as part of the patronage mechanisms of the mining companies. The practice of awarding unskilled labour hire contracts to chiefs and traditional leaders, Geenen (2019) argued, is granted by mining companies to acknowledge their position as custodians of the land and associated natural resources as well as win legitimacy and stability towards securing their social license to operate. Discussing the issue of mining companies awarding labour contracts to community leaders, one respondent at Akyempim explained:

Some of the contracts have been given to the chiefs. So, if let's say, someone working with the company gets 5000 cedis, since the contract has been given to the chief, the chief will say I am giving you 1000 cedis. If you like, do it, if you don't like, go away. So that has been one of the things that has been an issue in the catchment area. It got to a time they were arguing that the contracts need not to be given to the chiefs and elders within the catchment area. The company needs to take it upon themselves to employ them. At least, that will help them to get the full amount of money for the job they do... Mostly, they are given to them because of their position. It is a privilege they are giving them... Normally, it is the unskilled laborer kind of work (Akyempim Interview 13, May 2021).

Issues about the award of contracts to community leaders were also raised in Salman. As a matter of fact, the chief of Salman, during the researcher's first visit and introduction, complained about the limited number of contracts awarded by Adamus Resources. Interestingly, it was established during the interview with the former driver for Adamus that the youth are not on good terms with the chief because he took a bus service contract awarded to the community for revenue generation for himself.²⁰ Talking about the lack of unity in Salman as a result of the chief's dealings with the mining company, one female respondent argued:

²⁰ Salman Interview 3, March 2021.

Funny enough, the chief has moved to Takoradi so he doesn't live in the community with us. He only comes around on Wednesdays to collect his money from the company. The chief does not help us so the youth are not on good terms with him. Even his own family are not on good terms with him. He is not educated so he easily accepts whatever Adamus says. Because of that, the company likes him more than the community. All they need to do is give him money and he will support them. He doesn't think about the community... We cannot do anything about him since it is the royal family that enstooled him. But some of the family members don't like him. He has his people who benefit from him so they refuse to listen when you complain (Salman Interview 16, March 2021).

Respondents in both Salman and Akyempim highlighted the role of their community leaders in their limited employment with the respective mining companies. In the opinion of some respondents in Salman, having well-educated and knowledgeable leaders was key to ensuring that the necessary arrangements were put in place to help natives secure employment with mining companies. In the case of Akyempim, community leaders were able to address the initial failure to properly structure an agreement with the recent signing of the MOU, ensuring that priority is given to the community.²¹ While the MOU does not guarantee enforcement, it serves as a reference document for local residents to hold the mining company accountable for their actions. With regards to Salman, they have not been able to rectify the mistakes of their leaders, as a sub-contractor with the company argued that Adamus was forced to buy the land instead of a more favourable agreement that would encourage them to hire from the community.²² In that regard, the mining company is less responsive to the needs of Salman because the leaders of the community forced Adamus to purchase instead of leasing the land at a lower cost.

Citing an example of exemplary leadership in relation to mining companies hiring from catchment communities, an Environmental Science graduate from Salman recounted:

I have applied to Newmont; they needed an environmental officer over there. My brother, the kind of questions they asked will make you stop because their main goal is to take natives. Their chiefs made sure that the company recruited from their community instead of bringing outsiders (Salman Interview 11, March 2021).

Unlike the case of Salman, the respondent's experiences highlight how the needs of natives are placed ahead of non-locals due to employment agreements between Newmont and

²¹ Akyempim interview 3, April 2021.

²² Salman interview 5, March 2021.

the host community. Although such employment policies can incite ethnic tensions, as experienced in the case of copper mining in the north-western province of Zambia (see Negi 2011), the risk of conflict in Ghana is higher when natives or indigenes are overlooked in favour of outsiders because of the detrimental effect of losing large tracts of land to large-scale operations, hence their higher sense of entitlement to be the main beneficiaries of extractive activities. As argued by a representative of the Mineral Commission, the sense of entitlement among local residents of host communities is not out of place because the mineral is mined from their land.²³ In the context of this study, the failure to uphold or fulfil promises to employ natives was a major source of tension between local residents and the respective mining companies.

Besides issues relating to the power wielded by chiefs and community leaders, another factor that greatly influenced the ability of locals to get employed by large-scale mining companies was the lack of requisite qualifications and experience. The inability of local residents to meet qualification requirements is partly conditioned by the fact that only about 13.5% of Ghana's population have had higher education beyond the senior high school/secondary level (GSS 2021b). In the gold mining industry, the minimum educational requirement for unskilled jobs is the completion of the senior high/secondary school level. In certain instances, having educational qualifications was not enough for natives to get employed by the mining company. In addition to educational qualifications, various respondents mentioned that the lack of experience is used by mining companies to justify their limited employment in the large-scale sector. Some of the respondents echoed their frustration by arguing that:

When they are hiring, they use the strategy that they want someone who has License D, Dump Truck operator and others. If you are unable to get money to go learn these things, how will you meet their requirements. As I am speaking with you, I didn't go to school so how will I get their license D? How will I be able to meet their requirement with no education (Salman Interview 6, March 2021).

We equally have excavator drivers here, but they refuse to hire us because of experience. That is what they say all the time; that is their only vocabulary; experience. (Salman Interview 9, March 2021).

²³ Key Informant Interview 23, March 2021.

In addition to the lack of experience and requisite educational qualification, the study revealed or echoed the dominance of men in the gold mining industry. Based on available estimates at the national level, only an estimated 8% of the employees of large-scale mining companies are female (Ghana Chamber of Mines 2021a). According to the International Labour Organization (ILO) (2021), women in the mining industry are frequently faced with discriminatory practices, unconscious bias and a lack of support systems that ultimately hinder their access to and long-term involvement in the sector. In the context of this study, it was established that the relatively lower level of education among local women in rural Ghana was a factor limiting their employment with mining companies. While the low level of education limits both men and women to unskilled labour jobs with mining companies, various female participants of the study highlighted how they are often overlooked by stating that:

As for the mining jobs, I will say that it doesn't help we the women in the community. They are always asking for educational qualification. Unfortunately, very few of us were able to get educated to the level they want. I went to a technical school and couldn't continue. There are others who finished senior high school and have not been to continue... So, the mining company's presence does not help the women in particular (Akyempim Interview 8, May 2021).

They don't employ us. So far, it is only one lady who is employed in the Adamus; she is a cleaner. As for the men, they say the company has about 50 people from Salman but in actuality, there is only about 3 or 4 who are from the community. I don't think it is a matter of qualification (Salman Interview 16, March 2021).

As alluded to by the respondent from Akyempim, the lack of financial resources hindered her pursuit of further education to the level that is required for employment. With the right level of education and training, employment opportunities are not entirely limited to women in the large-scale mining sector. Using her company as a reference point, the representative from the Women in Mining (WIM) organization argued that there are women working in various departments ranging from Human Resources, External Relations, Sustainability, Finance and Procurement to Mining Planning, Survey, Geology and Engineering.²⁴ While the lack of requisite qualifications might be one of the challenges faced by women in particular, as well as male residents in general, various respondents emphasized the fact that holding the required documents was not the only factor that helped one to secure

²⁴ Key Informant Interview 35, August 2021.

a job with the mining company. Various study participants who work with the mining company mentioned needing to know an official who is capable of supporting one's application in order to get employed. This is consistent with Ribot and Peluso's (2003) argument that social relations are one of the key mechanisms for gaining access to the benefits of resource extraction. A respondent who worked as a contractor for Golden Star Resources argued:

I remember when I was home and yet to get the job, I used to give my application to an official, and he was surprised I had the qualification and couldn't get the job. So, getting someone who can ensure that you are hired is difficult (Akyempim interview 3, April 2021).

On the whole, respondents across the study communities reiterated the fact that the mining companies working on their land need to show greater commitment on their part to hiring from the catchment area. Such calls seem justified, given how the acquisition of large-scale mining concessions contributes extensively to land dispossession and the marginalization of local residents in host communities. Throughout the study, Newmont was cited as an exemplary mining company in Ghana that is very committed to employing local residents or natives from their operational area. Their exemplary commitment was echoed by the representative from WIM when she mentioned that '*Newmont is the benchmark in Ghana in terms of representation and employment of women*'.²⁵ In the case of Salman, tensions were high within the community over the general lack of employment opportunities provided to local residents by Adamus Resources. Adamus Resources has been reluctant to implement any form of a training programme that will help boost the chances of local residents securing jobs with the company, probably due to the strained relations with the community. In Akyempim, there was a general sense of optimism among locals as the signing of the MOU in 2019 has brought some improvement to the hiring of locals. Golden Star's commitment to hiring local residents is evident in the (re)introduction of a community training program where a number of local residents are selected to work with the company over a period of time, with a chance to be made permanent employees at the end.²⁶ The community training program is a laudable effort by Golden Star as it aims at helping local residents in their catchment area who have not been able to pursue higher education and the requisite skills to work in the industry. While

²⁵ Key Informant Interview 35, August 2021

²⁶ Akyempim Interview 2, April 2021.

concerns can be raised about the selection criteria for the training program, the implementation of the MOU as a form of local content policy at Akyempim can be seen as a beacon of hope for residents.

4.3.2 Impact on Livelihoods and Economic Activities

The impact of large-scale mining operations on local economies is not limited to the availability of employment opportunities with extractive industries but includes the growth or decline of various livelihoods and economic activities within the region. In other words, assessment of the poverty outcomes of large-scale gold mining in the host communities requires examining the wider impact of extractive operations on livelihoods and various economic activities. In the attempt to understand the state of the local economy in both Salman and Akyempim, household surveys were used to identify the source of household income in the host communities. Identifying the major sources of household income is essential to understanding the level of dependence on various livelihood activities, including gold mining. Figure 4.2 shows the average percentage of income derived from various sources among the sampled households for the study.

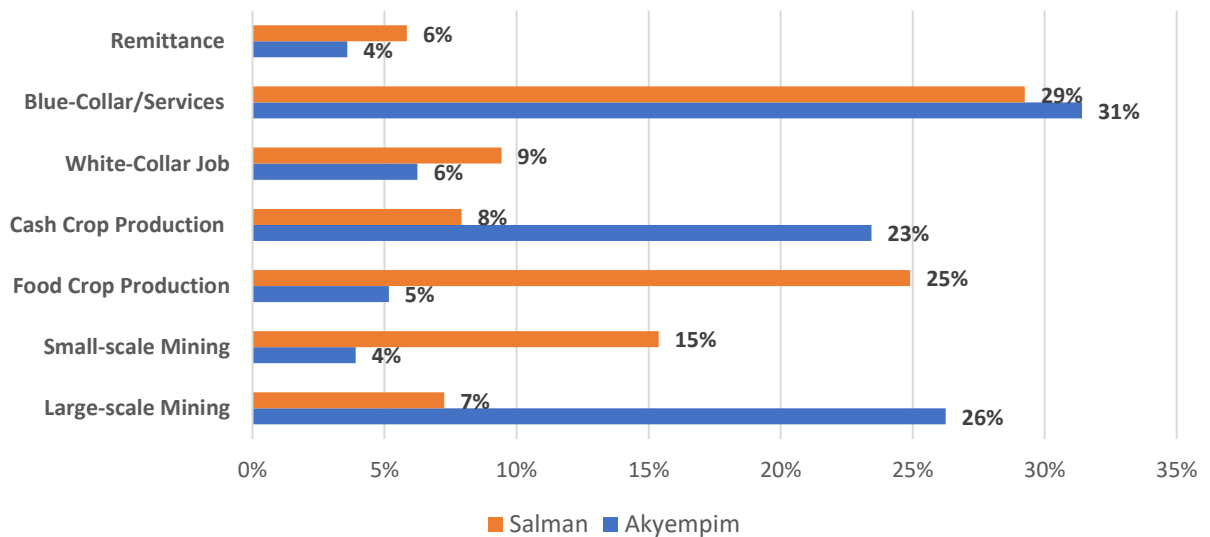


Figure 4.2: Household Income Sources
Source: Household Surveys, Fieldwork 2021.

Data from the survey highlight variations in large-scale mining employment in the host communities discussed in section 4.3.1. As shown in Figure 4.2, only an average of 7% of

household income was obtained from the large-scale gold mining sector in Salman compared to 26% at Akyempim. Inversely, a greater percentage of income for sampled households was obtained from the small-scale mining sector in Salman (15%) compared to Akyempim (4%). While small-scale operations in both communities were illegal, it is obvious that a greater number of local residents in Salman were engaged in the sector as part of their survival strategy following employment limitations with Adamus and the loss of livelihoods due to land dispossession to large-scale mining activities.

The variation in household income sources across the two communities is primarily a reflection of the extent to which the acquisition of large-scale mining concession affected livelihoods and economic activities in Salman and Akyempim. In most cases, the loss of agricultural land is the immediate impact of large-scale gold mining operations. With over 60% of Ghana's rural population involved in the agricultural sector (GSS 2021a), the loss of land to mining companies has severe consequences, leading to the marginalization of affected local residents in host communities, especially when they are not able to secure jobs in the extractive operations. In both Salman and Akyempim, respondents emphasized the hardship placed on locals who lost their farms to mining companies, despite having received compensation for depriving their user rights to lands.

With mining companies acquiring most of the land in the catchment of host communities, impacted farmers are forced to move away from producing cash crops like cocoa which served as a reliable source of income on a yearly basis. The transition from cash to food crop production is conditioned by Ghana's Mineral and Mining Law (see Section 72 of Act 703),²⁷ which stipulate that local resident are not allowed to grow or cultivate higher-value crops on affected farms after compensation has been paid without the written consent from the mining company or leaseholder. In the context of this study, the transition from cash to food crop production was more prevalent in Salman because the majority of their stool land (land claimed and owned by the traditional authority within an area) had been acquired under the concession of Adamus Resources.²⁸ This explains variations in the nature of agricultural activities in the communities based on the household income sources: 8% from cash crops in

²⁷ See Republic of Ghana (2006).

²⁸ Key Informant Interview 20, March 2021.

Salman compared to 23% in Akyempim and 25% from food crop production compared to 5%, respectively. The loss of land was more severe in Salman than in Akyempim, as Adamus Resource had to resettle the entire community in order to make their operations feasible. Salman was resettled approximately 1km to the east of a planned mining pit for Adamus resources in an attempt to alleviate the health hazard created by dust emissions from their operations (see GNA 2011). The sentiments raised by respondents about the loss of farmlands and its impact on affected residents include the following:

Usually, people cultivate cash crops like cocoa but since the mining company has purchased the land, the people are no longer able to cultivate the cash crops. The people are limited to producing low value crops such as cassava and others (Akyempim interview 3, April 2021).

Prior to the arrival of the mines (Adamus), things were not like that. That's because you have a farm that provides you with everything; cassava, pepper and everything. Now, to prepare a meal, you need to go to the market to buy pepper, garden eggs and everything. This is because the mining company has taken all the land (Salman interview 1, March 2021).

According to the above narratives, the loss of land to mining companies, and consequently, the inability to cultivate cash crops like cocoa, not only affects household income but also forces locals to become buyers of food items instead of producers. In the case of Salman, local residents found it extremely difficult to access an area to cultivate food crops, let alone consider the production of cash crops. Some respondents highlighted the issues faced by local residents:

At times, you have to go beg someone to give you a place for you to grow some cassava. I got an area from someone but that land has already been acquired by the mining company. They came to inform me yesterday that they are coming to commence work over there so all my cassava and everything on the farm will be destroyed. They are not going to pay any compensation because they had already done that with the original owner a long time ago. That is the risk involved in working on their land. Because I did not have any option, I had to take that risk to be able to cultivate my cassava. Now, they are coming to destroy everything and I can't say anything (Salman interview 1, March 2021).

To be honest, the company has brought a lot of hardship to us. Now, if you are going to the farm and you fail to use the right paths, their security men will start chasing you. They think you are going to steal their rocks. Funny enough, you will not be carrying

any rocks but only a cutlass. They will chase and interrogate you (Salman interview 6, March 2021).

The issue of locals being chased by security men when going to the farm brings to the fore Peluso and Lund's (2011) argument that enclosure and privatization are important ways of maintaining control over land and other resources. By acquiring a mining lease and, by implication, legal ownership rights, large-scale companies are able to enclose or restrict access to areas previously owned by local residents. As argued by Andrews (2018), farmers who "lose their land to a mining company soon become a foreigner to this same piece of land" (p. 246). The narratives also reveal why food security is an issue in the host communities since large tracts of agricultural land get taken by mining companies. Respondents in both communities argued that the limited ability to farm meant that food items had to be acquired from elsewhere, contributing to the high cost of living and overall hardship experienced by locals. Food items were often acquired from neighbouring communities less affected by the mining operations. While the switch from producers to buyers creates livelihood opportunities for individuals in the retail sector, respondents highlighted how the limited purchasing power of affected residents was detrimental to the local economy. The low level of employment and associated lack of purchasing power was a major concern raised by female respondents who worked as food vendors and petty traders.²⁹ Comparing the cost of living and the economic situation between mining and non-mining communities, a district planner explained:

In terms of economic potentials and local economic environments, I cannot see much difference because the impact of the mining activities on the pricing of commodities is not only restricted to the mining communities. It transcends to non-mining communities. Because since there is competition for the use of land with the mining company, food security is an issue in the mining communities. So other communities have to produce to augment the production from the mining communities. And obviously, demand and supply interaction to determine the prices of goods comes into play (Key Informant Interview 25, March 2021).

The narrative sheds light on the fact that the impact of large-scale mining on local economies is not limited to host communities. Based on the argument raised by the district planner, it is worth arguing that non-mining communities are often in an advantageous position in terms of securing more income from the sale of goods and services since their livelihoods

²⁹ Akyempim Interview 8, May 2021; Salman Interviews 18, March 2021.

have not been adversely affected by the operations of extractive industries. In such instances, the operations of large-scale mining companies generate opportunities for non-affected communities to obtain adequate income from high demand towards poverty reduction. For local residents in the host communities, the loss of land and livelihood, accompanied by the increase in the cost of living due to the demand and supply dynamics induced by extractive operations, exacerbates the incidence of poverty among affected groups.

While the presence of the mining company tends to attract migrant workers from all parts of the country, arguments were raised by both Salman and Akyempim that their presence didn't significantly boost sales for local businesses or traders. This can be attributed to the fact that only a small number of migrant workers settled in the host communities, hence the limited contribution to the livelihood of shop owners and petty traders. Migrant workers often resorted to commuting from larger towns, including district capitals, over host communities. The relatively low level of development in the host communities, despite their proximity to the mining site, rendered both Salman and Akyempim unattractive to migrant workers. At Akyempim, the Covid 19 pandemic forced a lot of migrant workers to stay in the community since the company buses were no longer travelling to distant towns on their daily routes as part of the company's measures to curb infection. However, various respondents in Akyempim stressed that the forced settlement of workers in the community did not significantly improve sales for local business owners as compared to what was experienced during the peak of illegal mining operations in the past.³⁰ This is to say that the presence of large-scale mining operations is less supportive of local businesses compared to what was experienced with small-scale mining. One respondent in Salman lamented the adverse impact of Adamus' operations on the local economy and their livelihood by saying:

When our wives sell at the market, no one purchases their items because there are no jobs in the community. Even the outsiders who get hired by the company refuse to stay here because the poor state of the local economy. Excuse me to say, if my mum prepares the food and no one buys, why will she continue to cook the next day? She wouldn't. Because of that, this community is not suited for them so they prefer to go live at Esiamia. So, ask yourself that if you have taken our lands and the company has come here, we don't get employed to work with them, our mothers are not able to sell because no one will buy, the outsiders who will come in to rent our rooms for us to gain an income don't

³⁰ Akyempim Interview 8 & 12, May 2021.

want to stay, then what is the benefit of the mining operations? (Salman Interview 6, March 2021).

The interview transcript contradicts expectations that large-scale mining operations are able to provide the needed boost for local economies of host communities through consumptive linkages (see Bloch and Owusu 2012). The limited development of consumptive linkages or boost to the local economy can be tied to the practice of drive-in, drive-out (see Keough 2015; Perry & Rowe 2015; Storey 2010), where migrant workers only maintain temporary accommodation in host communities while their families permanently live elsewhere, notably the more developed cities such as Tarkwa and Obuasi. This highlights the essence of paying attention to context since the expected economic boost is very dependent on prevailing development and socio-economic factors besides proximity to the mining operations. As established from the cases of Salman and Akyempim, proximity to the mining site/company does not guarantee that the host community will attract migrant workers and thus provide a significant boost to the local economy through consumptive linkages. Table 4.4 presents the impact of large-scale gold mining operations on their household income based on the surveys conducted in both communities.

<i>Impact on Household Income</i>	<i>Akyempim</i>	<i>Salman</i>
<i>Worsened</i>	3%	17%
<i>Somewhat Worsened</i>	9%	43%
<i>Unchanged</i>	55%	34%
<i>Somewhat Improved</i>	27%	6%
<i>Improved</i>	6%	0%

Table 4.4: Impact of Gold Mining on Household Income.
Source: Household Surveys, Fieldwork 2021.

Table 4.4 shows considerable variations in the impact of large-scale mining on household income across Salman and Akyempim. In Akyempim, 6% of the respondents perceived experiencing a significant improvement, while 27% mentioned large-scale operations bringing some improvement to their household income. In the case of Salman, none of the respondents perceived experiencing a significant improvement in their household income. Only 6% felt mining operations had caused some improvement to their household income. Households that mentioned experiencing some form of improvement in income often cited a member getting the opportunity to work with the mining company as the reason. The trend and variation in improvements to household income as a result of large-scale mining

operations in the communities were a function of the direct employment situation discussed in section 4.3.1, where Akyempim have a more favourable experience than Salman as a result of the MOU with Golden Star Resources. The favourable employment situation or availability of jobs for locals in Akyempim also explains why less than 15% of the respondents stated their household income had worsened, compared to Salman, where about 60% mentioned being worse off. Most of the respondents who are worse off stated they had lost their farmlands and livelihoods to large-gold mining operations. In order to help mitigate the adverse impact of large-scale mining operations on economic activities in host communities, the companies tend to support local residents through the introduction of alternative livelihood programmes.

4.4 Alternative Livelihood Programmes

Alternative livelihood programmes, Yankson (2010) argues, are best seen as a response to the loss of agricultural land, which has aggravated the problem of unemployment and poverty in host mining communities such as Salman and Akyempim. In most mining communities in Ghana, at least one form of alternative livelihood programme has been introduced in a bid to remedy the adverse impact of large-scale operations on the economic activities of local residents. Over the years, various kinds of alternative livelihood programmes have been introduced by not only large-scale mining companies but also civil society groups and state agencies. On the part of mining companies, alternative livelihood programmes tend to form part of their Corporate Social Responsibility (CSR) to host the community. According to Ablo (2019), CSR initiatives have become essential strategies used to foster the development of linkages in local economies towards addressing the enclave nature of large-scale mining. Indeed, alternative livelihood programmes encompass attempts to diversify the economies of mining communities through the promotion of skills training and various income-earning ventures. As argued by Hilson and Banchirigah (2009), the extractive companies expect that local residents will be placed in an improved position to earn a regular income and, as a result, discourage them from engaging in illegal small-scale mining activities, which is often associated with environmental degradation and social vices such as prostitution, illicit drug usage and crime. However, most of the alternative livelihood projects fail to achieve the desired results. Explaining the limited success of alternative livelihood programmes, a development planner argued:

The alternative livelihoods, they have tried so many things... they gave oil palm seedlings to people. They gave animals. But senior, how do you give a goat; one female goat, one male to individuals to go and rear when that person is hungry? How do you give pig, female and male pig to an individual when that person is hungry? You see, I don't know how they put those ideas together and the implementation path that was brought out for it to be implemented. It fizzled out. That thing didn't see the light of day; it was dead on arrival. Those who were given those animals, they slaughtered them for pepper soup. (Key Informant Interview 25, March 2021).

Using the cases of Salman and Akyempim, three main factors can be identified as impediments to the successful implementation of alternative livelihood programmes. The identified impediments, which are not mutually exclusive, include Poor planning and lack of local buy-in, Poor commitment from Mining Companies, and Preference for jobs with Mining Companies.

4.4.1 Poor Planning and Lack of Local Buy-in

During the study, various respondents argued that very few alternative livelihood programmes had achieved the desired impact in mining communities in Ghana, and this is true in the case of Salman and Akyempim. For Salman, the only notable alternative livelihood programme implemented by Adamus Resources was carried out as part of the community's resettlement process. Specifically, a selected number of young people underwent training in aluminium fabrication, electrical installation, refrigeration and air-conditioning repairs, computer hardware and mobile phone repairs at the Kikam Technical Institute located in the district of the mining company (Cision 2012). To local residents, Adamus' decision to offer training in these specific areas was indicative of the company's intention of not providing them with employable skills that are needed by the mining company. During his assessment of the programme, one of the beneficiaries argued:

They decided to train us on how to repair mobile phones... We asked for training, they chose mobile phone repairs and general electricals including how to repair refrigerators... As a company trying to train people, you should be giving them skills that are needed for your work. You don't repair phones at your workplace but you decide to train the people on how to repair phones. (Salman interview 9, March 2021).

While the community expected to be equipped with skills that would foster or improve their employment chances with the mining company, the training offered was rather aimed at diversifying the livelihood of local residents away from the extractive sector. Therefore, local

residents of Salman found it extremely difficult to understand why Adamus Resources have remained reluctant to offer training programmes that will improve their chances of securing jobs with the company. A taxi driver in the community argued:

I know one of the company workers from Tarkwa and he said that he was trained by the mining companies over there. Now, he has moved here to work with it. Most of the people who come from elsewhere tell us that we are weak; that they were trained by the companies in their places of origin. Some of them were trained at Damang and others. You see our problem? And we are not getting anyone to help us (Salman Interview 6, March 2021).

The narrative underlines the frustration of locals about the reluctance of Adamus Resources to train them in large-scale mining positions, similar to what is done by other extractive companies in the country. Since such training programmes tend to be goodwill policies and not obligated by law, Adamus Resources cannot be held accountable for their decision. Logically, recruiting highly skilled migrant workers helps Adamus Resources to maximize returns by saving time and money that would have been allocated to training local residents of the host community.

While not downplaying the usefulness of the training offered, the extent to which the community was involved in the decision-making process and their overall acceptance of the alternative livelihood programme implemented by Adamus Resources can be questioned. Planners of the programme failed to consider the practicalities of the skills provided in helping beneficiaries earn an income or diversify their livelihoods. Adamus Resources failed to consider how feasible it was for locals to use the acquired skills to earn an income within the very rural local economy. Speaking about the failure of the programme, the respondent argued:

None of us use the skills to earn an income. I learnt electricals... Ask yourself why didn't they hire some of us? Don't they use electricity at the worksite? So why didn't they get those who got trained attached to their relevant department at the worksite? When we completed the training, they provided us with tools and a certificate. (Salman interview 9, March 2021).

Based on the narrative, it is fair to argue that the alternative livelihood programme failed because of the poor prevailing economic and development conditions that can enable productive usage or application of new skills. On the other hand, beneficiaries could not make the most of the skills due to the limited access to capital and the market to ensure demand. It

was not enough to provide beneficiaries with tools and certificates at the end of the training. As argued by one of the local government officials interviewed, training people and leaving them to fend for themselves, in the end, doesn't help.³¹ This is consistent with studies citing incidences of disparity between community expectations and CSR programmes implemented by large-scale mining companies (Blowfield & Frynas 2005; Frynas 2008; Idemudia 2009). In Salman, local residents never got their desire to receive training in areas that are employable by Adamus Resources. Neither did the beneficiaries of the alternative livelihood programme get the needed assistance, such as start-up capital and market access, to promote income generation using their newly acquired skills. In the case of Akyempim, attempts by Golden Star Resources included all that was missing at Salman as part of the company's efforts to help diversify livelihoods, yet the general sense of dissatisfaction prevailed among local residents.

4.4.2 Poor Commitment from Mining Companies

As revealed with regard to direct employment opportunities (see section 4.3.1), Golden Star Resources has a community training programme that is aimed at equipping local residents with skills in the large-scale mining sector. Beneficiaries are given the opportunity to work within a particular department of the mining company over a period of time, with the chance of getting a permanent job at the end if there is an opening. Besides the community training programme, the company also introduced some alternative livelihood opportunities for local residents at Akyempim. The alternative livelihoods introduced included a programme supporting locals to rear poultry and pigs.³² According to information gathered during the fieldwork, the mining company set out to provide financial support to local residents interested in the poultry and piggery business. However, the programme was not successful because local residents were not interested in the proposed economic venture; they were rather interested in securing direct employment with Golden Star Resources.³³ For the few who got involved in the programme, the expected level of logistical support from the mining company was not realized, raising questions about Golden Star's commitment to ensuring the success of the

³¹ Key Informant Interview 27, April 2021.

³² Akyempim Interview 2, April 2021.

³³ Akyempim Interview 13, May 2021.

programme. Speaking about the experience of a relative who signed up for the programme, one female respondent explained:

It wasn't that successful. My brother-in-law got involved in poultry. They said they will be assisting him financially. But the program got out of their hands so he is now managing everything on his own. He is not getting any assistance with the feed. No one has offered to pay for bags of feed; nothing! He was left to do everything on his own. To me, that program was not successful. (Akyempim Interview 12, May 2021).

Based on the narrative, it is fair to argue that the poor level of support given to locals who got involved in the poultry and piggery business was detrimental to the success of the alternative livelihood programme at Akyempim. Besides the poultry and piggery programme, it was established that the mining company started an oil palm plantation business in their catchment area. The Golden Star Oil Palm Plantation (GSOPP) was established in 2006 as a non-profit subsidiary of the mining company with the hope of reducing poverty and creating wealth among beneficiaries (Njoku 2021). Using the smallholder concept, the oil palm plantation programme is best described as an income-generating venture for land owners, local chiefs and employed individuals within the catchment area of Golden Star Resources. It was interesting to note that the mining company has integrated the programme as part of its reclamation process, as palm trees were planted in areas no longer under gold extraction after restoring the topsoil.³⁴ With yields averaging between 15 and 18 tonnes per hectare (Njoku 2021), the oil palm plantation programme is probably one of the few success stories with regard to alternative livelihood programmes in Ghana, remaining operational since its inception in 2006. Revenues from the plantation were divided into three parts, with a portion accruing to the mining company, local chiefs and employed workers.³⁵ This is to say that the company has been recouping its investment from the alternative livelihood project; hence the oil palm plantation has remained operational over the years.

4.4.3 Preference for Jobs with Mining Companies

Despite the relative success of the oil palm plantation, doubts can be raised about its appeal to local residents, especially the youth in Akyempim. While the promotion of agrarian livelihood projects is prudent and practical for most rural settings, including mining

³⁴ Akyempim Interview 5, April 2021.

³⁵ Akyempim Interview 5, April 2021.

communities, engagement with various respondents revealed a general sense of disinterest in the oil palm plantation project to be specific, and agrarian livelihoods in general, among the youth in both Akyempim and Salman. With the presence of large-scale mining operations in their respective communities, the youth in Akyempim and Salman expressed their disinterest in farming activities due to the laborious nature of the work and concerns about its unprofitability.³⁶ The large-scale gold mining sector is more appealing to local residents due to the fact that employment guarantees regular income compared to the seasonal nature of agriculture. Additionally, employment with mining companies is appealing due to the industry's reputation as one of the highest-paying sectors of the Ghanaian economy.³⁷ Speaking about his disinterest in farming, a respondent explained:

I personally don't like farming. It is a very difficult line of work, and there is no money in it. You will go and harvest the cocoa, dry and all that, but the money is small. In the mines, you can be marked GHS 600 a day. With farming, you will suffer to get that amount of money (Akyempim Interview 7, April 2021).

The narrative is indicative of not only disinterest in farming due to the low returns but, more generally, speaks to the wider challenge companies face in promoting alternative livelihood projects that are non-mining related. Highlighting the challenge of promoting livelihoods outside the mining sector in host communities, some respondents explained:

For us here in the Western region, mining is one of our major aspirations. If you tell me to come work at the district assembly for you to pay me at GHS 2000 each month, I will not do it. This is because I am in a mining area so I will want to work in the company. If you are in Daboase where the assembly is located, then you should get employed at the assembly. For us here in Akyempim, the mines (mining companies) are ours, so you cannot bring someone from Takoradi or Daboase to come and work with the company while we, the community members, don't get the opportunity to work with the company (Akyempim Interview 3, April 2021).

... at all costs, want employment in the mining companies. Again, the mining companies have tried to help these people by training to engage in other occupations like soap making, dressmaking and some other technical skills. And even, to some extent, some of the people have graduated. The challenge is that some of these people work on their own for about one or two years and then go back to the mining company that they still want employment with the company... so far as the company is in their area, that is the only

³⁶ Akyempim Interview 12, May 2021; Salman Interview 15, March 2021.

³⁷ Akyempim interview 11, May 2021.

place they want to work. So, these are some of the challenges (Key Informant Interview 37, August 2021).

It is difficult to secure the buy-in of local residents on non-extractive alternative livelihood programmes since there is a general impression that everyone must secure work with large-scale mining companies in host communities. As stressed by the planner at the Wassa East District, the impression among local residents, even if they have other skills, is that *'if I am not working in the mine, I should sit and wait till the mine employs me'*.³⁸

With mining companies implementing alternative livelihood programmes not out of obligation but primarily motivated by their desire to establish a good working relationship and acquire a social license with host communities (Ackah-Baidoo 2012), it will be important to engage and actively involve local residents in the decision-making process. Even when mining companies engage in active consultation with host communities, there have been cited incidences of disparity between expectations and implemented CSR programmes (Frynas 2008; Idemudia 2009). Nevertheless, a lot of effort should be placed into ensuring that alternative livelihood programmes are in tune with the aspirations of its target demography in order to ensure that they have a positive impact on poverty outcomes among local residents in host communities. The success of alternative livelihood programmes will also depend on addressing the high interest of local residents in securing permanent work with the large-scale mining companies operating in their communities.

4.5 Infrastructural Development from Mining Companies

Similar to alternative livelihood programmes, large-scale gold mining companies are noted for investing in infrastructural development as part of their corporate social responsibilities. According to Yankson (2010), such voluntary commitments are undertaken with the hope of sending a positive signal about their behaviour to not only host communities but also other stakeholders, including investors, shareholders and employees. As shown in Table 4.2, large-scale gold mining companies in Ghana spend a lot of their revenue on improving access to educational and health facilities, just to name a few, within their catchments. For that reason, mining communities in Ghana are noted to have better access to social services than non-

³⁸ Key Informant Interview 27, April 2021.

mining ones due to the commitments of large-scale gold companies as part of their CSR. Explaining the difference with examples, a respondent stated:

I will say that in terms of access to basic infrastructure, the mining communities are better off than the non-mining communities... all the communities within Gold Fields Ghana's catchment area, in those days, around 1998, were provided with electricity, which, hitherto, would have been very difficult to get. Huni-Valley community, for instance, had its Health Centre rehabilitated and expanded by the mining company. They have built teachers quarters for schools; they've built classroom blocks for schools. Damang, same; they built health facility for them; they built classroom facilities also for the schools and they have a model school at Damang, where the mining company has adopted or provided a percentage of the teachers' salary as motivation to those teachers... So those are some of things that the mining communities have which are not available in the non-mining communities (Key Informant Interview 25, March 2021).

The narrative highlights the trend of mining regions in Ghana having better access to basic infrastructure, which may translate into a lower incidence of poverty than in non-mining areas. In the context of this study, Golden Star Resources was praised for its commitment to the infrastructural development of Akyempim and other communities in their catchment area. Thanks to Golden Star Resources, there are two health centres (one for the community and the other for employees of the mining company) with nurses' quarters at Akyempim.³⁹ Akyempim is on a small-town water treatment system, and the company has provided the market, community centre and toilet facilities.⁴⁰ In addition to providing scholarships to local residents, Golden Star Resources has contributed immensely to improving access to the educational infrastructure at Akyempim. Besides infrastructure, the mining company supports the teachers of one of the government schools in the community by providing an extra allowance of about 25% of their salary, among other benefits.⁴¹

As part of the MOU signed with the mining company, it was established that a development committee had been created, with money set aside, to handle the provision of social amenities at Akyempim and other catchment communities.⁴² Bearing in mind potential concerns about the development committee undertaking projects that will be worthwhile to the community at large, the fact that Golden Star Resources have set aside funds shows their

³⁹ Akyempim Interview 2, April 2021.

⁴⁰ Key informant interview 27, April 2021.

⁴¹ Akyempim Interview 13, May 2021.

⁴² Key Informant Interview 37, August 2021.

commitment to providing for the needs of local residents. On the other hand, very little can be said about the commitment of Adamus Resources to meeting the infrastructural development needs of local residents in the context of Salman. The different levels of commitment between the two companies can only be attributed to variations in the managerial priorities and mission of the extractive industries. The precise manifestation and direction of CSR hinge on the discretion of the extractive industries (Matten & Moon 2008). While implemented CSR programmes are influenced by the strategies and stipulations of the headquarters of some mining companies, others adopt an approach based on the prevailing political and cultural systems of host communities (Ackah-Baidoo 2012).

In Salman, it was established that most of the infrastructural development undertaken by Adamus Resources was provided as part of the resettlement project in 2012. In addition to rebuilding the homes of local residents, Adamus provided the community with a health centre, police station, schools, boreholes and living quarters for nurses, teachers and police officers (Cision 2012). However, the community has been struggling to get the company to come to its aid over the last few years with regard to new infrastructural needs or renovating existing ones. Unlike Golden Star Resources, Adamus Resources has refused to set money aside for the development needs of Salman, citing the social amenities provided during the resettlement as the reason why they are not willing to do that, according to a community youth leader.⁴³ Speaking about the community's relationship with Adamus and their struggles to get their needs met, assembly member of Salman explained:

Our relationship is not all that perfect because we usually have to wait for a long time to get the what we need from them. They know very well that it is part of their social responsibility... if our boreholes are faulty, they need to come to our aid. But here is the case you have to chase them with letters for long; it is not easy. As a result, our relationship is not that great... we need their assistance with the boreholes, streets, toilet facility, school, clinic and we have a very big community centre that needs renovation (Key Informant Interview 15, March 2021).

While the narrative indicates the relatively low level of commitment on the part of Adamus Resources, local residents were unable to provide a concrete explanation for why the mining company has been unresponsive to their needs. As argued by Owen and Kemp (2015),

⁴³ Key Informant Interview 20, March 2021.

allocations for community investment projects are often dependent on factors including the profitability of mines, budgetary allocations and corporate needs of mining companies. Furthermore, Adamus Resources are not mandated by law to be responsive to the development needs of the community. The narrative also speaks to the general expectation among the host community in Ghana that their infrastructural development needs are supposed to be met by mining companies. Indeed, the mining companies in Ghana are the first point of contact for local residents with regard to getting their development needs addressed. In a discussion about the lack of satisfaction among host communities in Ghana despite what mining companies do for them, an official with the Minerals Commission argued:

They are always crying foul. They are always saying that they are not getting the benefit... they want to see that they have a plush toilet, they have a plush school, plush medical care; all that you will see in Johannesburg or you will see in Colorado or places that they have mined gold. But they don't see that... For mining communities in Ghana, none of them is satisfied as far as I know (Key Informant Interview 23, March 2021).

In most cases, local residents fail to recognize the fact that projects undertaken as part of corporate social responsibilities are voluntary actions aimed at creating a positive reputation for mining companies. This is to say that host communities cannot hold mining companies accountable for refusing to meet their infrastructural development needs unless an official document or agreement with clear stipulations, such as the MOU between Akyempim and Golden Star Resources, has been drafted and implemented. For some mining companies, drafting and implementing MOUs is problematic. Explaining the tricky issue of drafting and implementing MOUs, a Community Relations Officer of the Minerals Commission argued:

... it is one thing drafting the MOU and one thing implementing it. Gold Fields Tarkwa, for example, are not interested in drafting an MOU... they think that if you draw this MOU, they as a company will be responsible, try and go by it. But when the youth rise up, the chiefs will not be able to control them so they will not want to enter into an agreement that will bind them but will not bind the communities properly. Yet, they have been doing so many things. The road from Tarkwa to Damang was constructed by Gold Fields (Key Informant Interview 37, August 2021).

The interview transcript highlights the importance of mining companies being committed to helping to improve the lives of local residents in host communities. Yet, the dissatisfaction among mining communities in Ghana brings up concerns about the significance

of improved access to basic social amenities for poverty alleviation and development. There is no denying that local residents stand to benefit from improved access to education and health facilities. The expectation is that improving educational levels will ultimately help local residents to be gainfully employed and, in turn, improve the standard of living of their respective households in the long run.⁴⁴ However, improved access to basic amenities does not resolve the unemployment situation, which is the biggest challenge that host communities face as a result of large-scale gold mining operations.⁴⁵ Sharing her opinion about the unemployment situation in the midst of infrastructural development, a local participant argued:

With regards to benefits, I will say that the company's operations adversely affected the work of our fathers when they took over their farmlands ... majority of the people are not employed with the company so they are staying at home. So how do you expected those affected to feed or cater for their families? Now, they are doing their part by building schools and others. But yet still, it is not the best. This is because when you build the school and I enroll my child while I don't work, how do I get money to cover the cost of their education. The place is rural and the only job that is available is the mining company. Since I am not getting an opportunity to work with the company, how will I manage taking my child to school? (Akyempim Interview 8, May 2021).

The narrative presented highlights the importance of being able to earn income in the midst of improved availability of social amenities. As stated by the respondent, access to basic human entitlements like education and healthcare are still mediated by one's ability to afford available services. In the words of a Community Relations Officer with the Minerals Commission,

The lack of income is the harbinger of poverty. So, no matter the social amenities that the mining company provide, if the people don't have employment and don't take advantage of the other benefits that the mines will bring, we cannot eliminate poverty or bring it substantially down (Key Informant Interview 37, August 2021).

Based on the argument raised by the participants, the large-scale sector's contribution to development and poverty alleviation in mining communities requires addressing the unemployment and strained livelihood situation among local residents. Local residents in host communities remain dissatisfied with the level of infrastructural development provided by mining companies. As Dam and Scholtens (2008) argue, poverty would no longer be a serious

⁴⁴ Key Informant Interview 27, April 2021.

⁴⁵ Key Informant Interview 37, August 2021.

issue in resource-rich developing countries if extractive companies were to apply the same standards that apply in their home nations to their subsidiary operations. However, since most multinational companies are interested in making larger and faster returns on equity compared to what is obtainable from projects in developed countries (Campbell 2010), it is difficult to envisage extractive industries showing significant commitment to addressing the unemployment and strained livelihood situation in host communities in Ghana. Corporate actions like the decision to employ experienced migrant workers over inexperienced local residents is an effective means of reducing cost for extractive operations in order to maximize profits. As argued by the respondent from the Ghana Chamber of Mines, addressing unemployment and providing basic infrastructural needs of local residents is the responsibility of the state, which is why large-scale mining companies pay royalties to the government to finance development in host communities affected by their operations.⁴⁶

4.6 Mineral Royalties Usage

Another source of dissatisfaction among mining communities in Ghana revolves around the usage of mineral revenues (royalties) by the government. Usually, large-scale gold mining companies pay a percentage (ranging from 3% to 5%) of their total revenue to the central government as mineral royalties. Upon receiving payment of royalties, the central government retains 80% in the Consolidated Fund (CF) and assigns the rest to the Mineral Development Fund (MDF) (see Figure 4.3 for a summary). The MDF was established by an executive fiat in 1993 to redistribute mineral royalties from the central government to local institutions with the aim of promoting socio-economic development in host communities as well as supporting the growth of the industry at large (Lujala & Narh 2020). For the 20% assigned to the MDF, 10% is transferred to the Office of the Administrator of Stool Lands (OASL),⁴⁷ while the remaining half is retained under the fund to support activities of mining-related institutions (including Ministry of Lands and Natural Resources, Minerals Commission, Ghana Geological Survey Authority).⁴⁸

⁴⁶ Key Informant Interview 9, March 2021.

⁴⁷ Office of the Administrator of Stool Lands (OASL) is a national institution mandated by Article 267(2) of the 1992 Constitution of Ghana, the Stool Lands Act 481 of 1994 and the Lands Regulations (L. I. 2377) of 2019 to collect and distribute stool land revenues in the country.

⁴⁸ Key Informant Interview 10, March 2021; Lujala and Narh (2020).

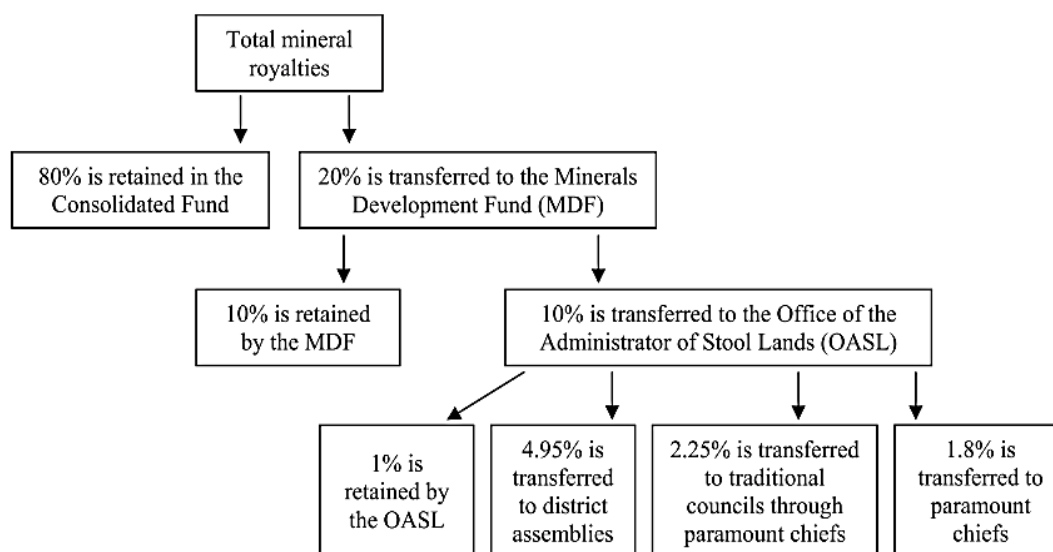


Figure 4.3: Ghana’s Mineral Royalties Distribution Scheme

Source: Adopted from Lujala and Narh (2020).

Until the enactment of the Minerals Development Fund Act 912 by the Parliament of Ghana in March 2016, there was no clear disbursement structure and legal document for the management of mineral royalties as the Ministry of Finance wielded a lot of discretionary power over when funds were released to beneficiaries.⁴⁹ As argued by Lujala and Narh (2020), little attention was paid to addressing the mining-induced issues in host communities due to the lack of legal guidance. Additionally, there were no clear provisions ensuring that a specific percentage of mineral royalties was spent on the mining communities. Therefore, the MDF Secretariate was created following the enactment of Act 912 to improve the disbursement of funds and ensure the implementation of the Mining Community Development Scheme (MCDS).⁵⁰ Out of recognition that host communities have remained poor (Lujala & Narh 2020), the Mining Community Development Scheme (MCDS) was introduced to support the socio-economic development of mining-affected communities.

The framework for disbursement of MDF (see figure 4.4 for the summary) under section 21 of Act 912 stipulates that half (50%) of funds are paid to OASL to be disbursed to beneficiaries as prescribed by law. The secretariate allocates 20% of the funds to the Mining Community Development Scheme (MCDS) for local projects; 4% goes to the Ministry of

⁴⁹ Key Informant Interview 10, March 2021.

⁵⁰ See Section 16 of MDF Act 912, Republic of Ghana (2016).

Lands and Natural Resources (MLNR), 13% to the Minerals Commission (MC) and 8% to the Ghana Geological Survey Authority (GGSA) to supplement their mining operations. Additionally, 5% of the funds are allocated for research, training and projects aimed at the promotion of sustainable development through mining.⁵¹

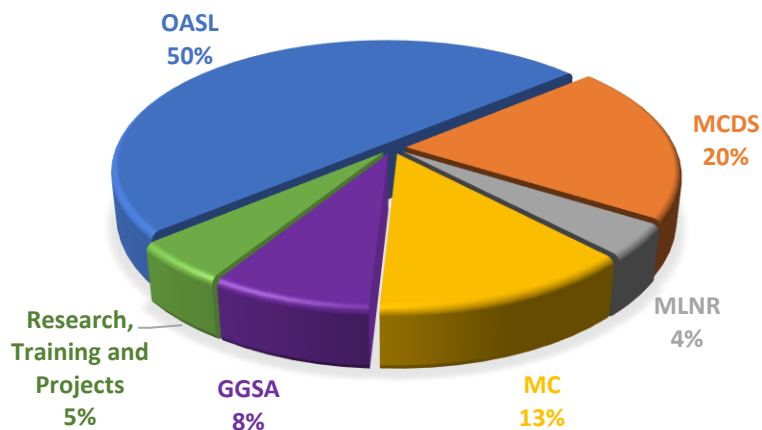


Figure 4.4: Framework for disbursement of Mineral Development Fund (MDF)

Source: Author’s construct based on MDF Act 912.

With regards to the portion of the MDF transferred to OASL, 1% is retained for administrative costs, while the remaining 9% is used to make payments to the paramount chiefs (2%) and traditional councils (2.5%) of the area from which the revenue originates as well as district assemblies (4.95%) to fund development projects at the local level.⁵² A good chunk of funds (55%) allocated to OASL are sent to the district assemblies to finance development at the local government level.⁵³ However, district assemblies don’t spend their portion of mineral royalties solely on mining communities. In a discussion with a district development planner about the usage of MDF in host communities, she explained that:

Where there is a need for us to spend something on them, we do. But it’s (MDF) for the whole district... And you know, our projects, let me say, emanates from the people. When the people demand for the project, then we do. As and when we need to go into a community to do something, we will not say because that community is not a mining catchment community, we will not take it (Key Informant Interview 22, March 2021).

⁵¹ See Section 21 of MDF Act 912, Republic of Ghana (2016).

⁵² See Article 267(6) of the 1992 Constitution of Ghana, the Stool Lands Act 481 of 1994 and Lands Regulations (L. I. 2377) of 2019.

⁵³ Key Informant Interview 10, March 2021.

The interview transcript is consistent with reports that mineral royalties are often used to undertake developmental projects in areas, especially district capitals, instead of the mining communities (Lujala and Narh 2020). Indeed, concerns were raised about how MDF funds are used by district assemblies and traditional authorities, given the low level of development and a general sense of dissatisfaction among mining host communities.

Reports suggest that the district assemblies often used mineral royalties for recurrent expenditures such as waste management and the purchase of fuel and vehicles instead of developmental projects that will benefit mining communities or local residents in the district at large (Ashiadey 2014). According to Twerefou *et al.* (2015), district assemblies cannot be compelled by any laws or regulations to use mineral royalties to fund development activities in communities affected by mining. District assemblies usually insist that royalties are for the entire district, and that's why mining communities still complain that they don't see the benefits of the industry.⁵⁴ It was established that even with the passage of Act 912, the MDF Secretariate does not have any power to hold district assemblies and other beneficiaries of mineral royalties accountable.⁵⁵ The MDF Secretariate is only able to track disbursements made to the local authorities by the OASL and not how the royalties are spent (Lujala and Narh 2020). Therefore, issues surrounding poor usage of mineral royalties by district assemblies revolve around the lack of accountability and transparency. As argued by Awortwi and Nuvunga (2019) and Gaventa and Oswald (2019), locals in host mining communities need to be empowered to influence decisions about how extractive revenues are utilized to meet their development lives. There is very little information shared with the general populace on how revenues collected by district assemblies are used. Speaking about the importance of transparency amid reports that they waste the fund, one district assembly official argued:

It came to a time that the mining communities were even fighting the assembly, that they had heard that MDF comes to the assembly. They think that the MDF is for them. They didn't know that when the MDF is shared, the stool gets its share... I blame the assembly. The reason why I blame the assembly is because the assembly should have been a bit transparent when it comes to townhall meetings; letting them know the portion of the MDF was received, what we have used it for and how it is benefiting them.... Though we do townhall meetings and engage people, the style of doing it was not transparent enough... we need to segregate our resources to talk about MDF only; talk about Internal Generated Funds only; talk about timber resources only; talk about Common-

⁵⁴ Key Informant Interview 8, February 2021.

⁵⁵ Key Informant Interview 10, March 2021.

Fund only... we have to split and let them know. They were fighting us that we don't do anything for them (Key Informant Interview 27, April 2021).

As mentioned in the transcript, local residents often argue that district assemblies do not do anything for them. Indeed, interview respondents in both Salman and Akyempim stated that their respective district assemblies had not done anything for their communities.⁵⁶ During the household surveys, respondents were asked to agree or disagree with the statement: “I am confident that district assemblies utilize royalties and revenues from gold mining for the development of this community.” The survey data (see figures 4.5 and 4.6) revealed slight variations in the level of confidence as a greater percentage of sampled respondents in Akyempim agreed that the district assembly would utilize mineral royalties for their development needs, while a smaller proportion of the responses in Salman expressed faith in the local government institution.

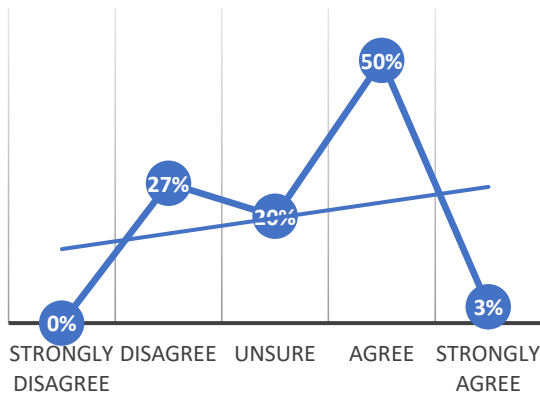


Figure 4.5: Akyempim - District assembly use MDF for development of community. Source: Household Surveys, Fieldwork 2021.

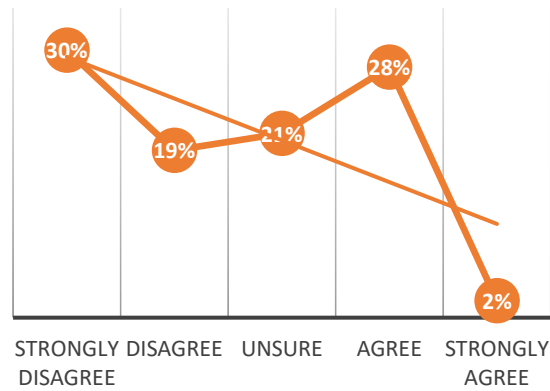


Figure 4.6: Salman - District assembly use MDF for development of community. Source: Household Surveys, Fieldwork 2021.

The variation observed among the two communities might be a function of differences in the level of infrastructural development in Akyempim and Salman. However, it is also worth noting that local residents in host communities tend to place their development needs and

⁵⁶ Salman interview 11, March 2021; Akyempim interview 12, May 2021.

expectations on large-scale gold mining companies rather than the district assembly, as evident in a respondent arguing that:

... for us, since the mine is primarily located in our community, we expect that the mine will provide most of the things for us. By so doing, we will not focus on the district assembly. Since we are in a mining area, it will be great if the mine will provide most of the things for us in the community just as the community can help the work of the mine to improve or grow. If you help the community to develop, we can also help the mining operations to grow and develop (Akyempim Interview 3, April 2021).

The narrative is consistent with Ackah-Baidoo's (2012) assertion that the responsibility of providing for the needs of host communities often falls on multinational companies, especially in the absence of government-initiated local development. The limited usage of mineral royalties for development projects also revolves around the heavy dependence of district assemblies on funds from the MDF. It was established during the study that mineral royalties from the MDF are a major source of capital for the operations of district assemblies. According to a public servant interviewed at one of the mining districts, the MDF tends to be the biggest source of revenue used for development projects at the local government level.⁵⁷

Comparatively, revenues obtained from MDF are substantially higher than allocations from the District Assembly Common Fund (DACF) (Boakye and Ofori 2021); hence their importance to local development cannot be overstated. Indeed, it was indicated by a district planner that the projects that are completed within their planned duration are mostly financed by the MDF.⁵⁸ While the Common Fund is the main public purse for district assemblies in Ghana, a lot of projects at the local governance level tend to lapse over their expected completion dates due to disbursement delays from the Ministry of Finance. With reports suggesting that the government owed the Common Fund GH¢ 2 billion (US\$ 285.71 million⁵⁹), which comprised disbursements that should have been paid from 2019 to 2021 (Adogla-Bessa 2021), district assemblies that receive revenues from the MDF are better placed to meet their development goals. It is worth noting that issues about delayed disbursement of funds from the Ministry of Finance apply to the MDF as well⁶⁰ (see Figure 4.7).

⁵⁷ Key Informant Interview 12, March 2021.

⁵⁸ Key Informant Interview 25, March 2021.

⁵⁹ Amount in US\$ computed using the exchange rate of US\$ 1 = GH¢ 7.

⁶⁰ Key Informant Interview 10, March 2021.

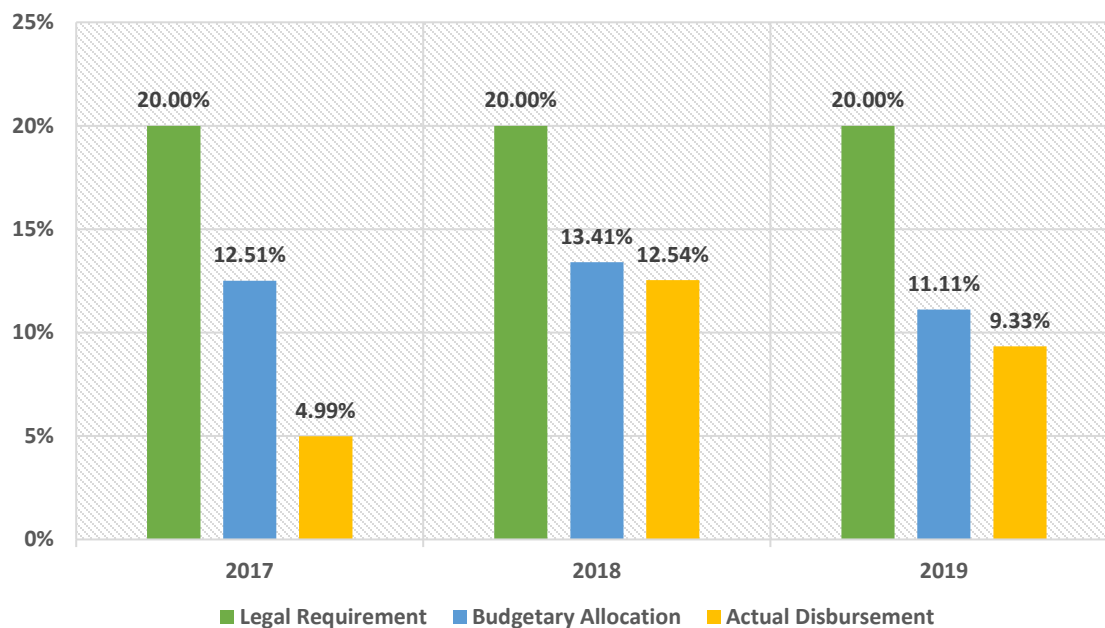


Figure 4.7: MDF budgetary allocations and actual disbursements from 2017 to 2019.
Source: Boakye and Ofori 2021.

For district assemblies, the MDF is a more reliable and efficient source of project funding than the Common Fund in terms of frequency of disbursement.⁶¹ Talking about delayed disbursement, the representative from the MDF Secretariate mentioned that:

... if the money comes, it goes straight to the Ministry of Finance. Of course, they subject it to issues of capping... So, for instance, you expect x amount of money. It gets to government coffers, the Consolidated Fund, and they say okay, priority areas of government are this and that. We need to take some monies from somewhere to support this kind of thing. Of course, that really affects us. Because, the truth is that since 2017, if we should... we know how much have been paid and how much to expect. So, our expectation from 2017 to date should have been like, in the region of GH¢ 666 million. But all that we have received is about GH¢ 328 million (Key Informant Interview 10, March 2021).

While district assemblies are not obliged by law to spend revenues solely on host mining communities, various respondents (such as officials of the Minerals Commission, NGO representatives and local residents) argued that the chiefs and traditional councils mostly used mineral royalties for their personal gain. There is very little clarity on how mineral royalties paid to traditional councils and chiefs (2.5% and 2% of total payments made to the

⁶¹ Key Informant Interview 25, March 2021.

government⁶²) are to be used. This stems from the ambiguity of Article 267(6) of the 1992 Constitution of Ghana (Lujala and Narh 2020). It was revealed that the traditional councils and chiefs misinterpreted the clause ‘*for the maintenance of the stool in keeping with its status*’ to mean that mineral royalties received could be used to finance personal projects and sponsor their position. According to Standing and Hilson (2013), the stool is not a throne or the personal authority of the individual who occupies it but rather symbolizes the social unit – a family, state or confederation – and in customary law, chiefs are custodians of communities. In that regard, the stool represents the well-being of the community and not the individual chief. Study respondents sharing experiences from engagements with traditional rulers about mineral royalties argued:

You see, when the chiefs receive their percentage, it goes to sponsor their status as chiefs. If the palace is not of a standard, they want to put few renovations here and there; buy their regalia; that is mainly what they use the money for. If the chief wants, he will use it for his own personal gains like buying cars for himself, marrying another wife or building his own structure. You know, they use it mostly for palace and buying regalia and when you ask them, they say the palace and the regalia represent the soul of the community and so they have to keep the soul of the community. For them, when they are using it for those things, they are using it to the benefit of the community (Key informant interview 1, January 2021).

I think in the law, what they indicated was ‘for the upkeep of the stool’. And they also have their own definition for that. I remember we had this chief who said “that’s what we use to pour libations”. Hahaha! It is for the upkeep of the stool so they also see themselves that, okay, at the time, what they said was that chiefs are not a development organization so they can’t use that money to develop communities... So, the amount of money that goes to the district assemblies should rather be used to develop communities and not what goes to the chiefs (Key Informant Interview 8, February 2021).

It is evident from the narratives that there is a lot of ambiguity surrounding the meaning of the stool as well as the purpose of mineral royalties paid to chiefs and the traditional councils. While it is obvious that royalties are paid to paramount chiefs as part of the government’s patronage mechanism to keep them happy and ensure that they benefit from mining operations, there is no clarity on the purpose of revenue paid to the traditional council.

⁶² See Article 267(6) of the 1992 Constitution of Ghana, the Stool Lands Act 481 of 1994 and Lands Regulations (L. I. 2377) of 2019.

Ghana's constitution fails to explicitly clarify the role of chiefs and traditional authorities in the governance structure of the country. While the constitution limits the power of chiefs to land ownership and control, recognizing customary institutions legitimizes traditional authorities as rulers of their subjects, often serving as proxies to the ruling government in parts of the country (especially rural areas) where state governance capacity is weak (Fox *et al.* 2011; Standing & Hilson 2013). Interestingly, payments made to traditional councils go through the paramount chiefs. This means that 4.05% of total royalties paid by mining companies to the government (Boakye & Ofori 2021) end up in the hands of paramount chiefs before possibly trickling down to sub-chiefs and other members of the traditional council at the community level. Again, there are no provisions in the laws and regulations to hold paramount chiefs and traditional councils accountable for royalties paid.

As shown in Figure 4.8, local residents of both Salman and Akyempim had very little confidence in traditional leaders with regard to using mineral royalties to undertake development projects for the community. Local residents in both Salman and Akyempim were unable to mention or identify a single project financed by traditional leaders of the community. As argued by a district planner, even members of the royal families moan or complain about the utilization of royalties that goes to the stool, let alone the community in general.⁶³ In Salman, it was established that tensions between the chief and the community were partly caused by his refusal to render accounts of mineral royalties received.⁶⁴ According to a youth leader, it was collectively agreed that mineral royalties accrued to Salman would be divided into three parts, with the community receiving one portion for development needs while the royal family or clan keeps the remaining two-thirds.⁶⁵

⁶³ Key Informant Interview 25, March 2021.

⁶⁴ Salman Interview 3, March 2021.

⁶⁵ Key Informant Interview 20, March 2021.

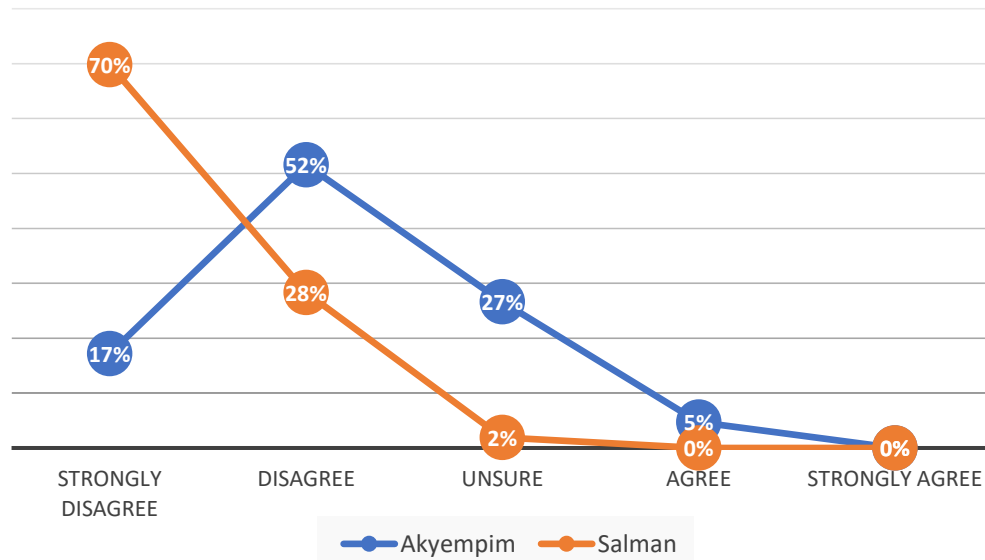


Figure 4.8: Traditional leaders utilize mineral royalties for community development. Source: Household Surveys, Fieldwork 2021.

Following the enactment of MDF Act 912 in 2016, the introduction of the Mining Community Development Scheme (MCDS) is supposed to guarantee that host communities benefit from large-scale mining operations. According to Act 912, the funds allocated to MCDS are managed by the Local Management Committee (LMC). Explaining how the LMCs work during the interview with the MDF Secretariate, the respondent argued:

... the Act mandates us to establish the Local Management Committee... The idea for establishing that, for making it distinct from the district assembly, is such that the district assembly will not have total control over the funds, where they can use it for any other thing... The composition of the local management committee is very fair such that everybody is well represented. We have traditional authorities represented. We have representative of recognized youth group; representation of recognized women's group. We have the mining companies themselves... We have the district mining officer of the assembly also involved... It is a new thing in the country that we are implementing so we took them through series of training programs like project selection, how to manage the fund and all those things because there are kind of strict Acts or Laws that needs to be followed; like the Policy Financial Management Act... The key thing is the project selection because we want to make it quite different from that of the district assembly. So, we said get the local's buy-in first before you implement and prioritize your projects as well. So, you need to organize stakeholder engagement at the community level to sort of get their buy-in before implementing (Key Informant Interview 10, March 2021).

There are two main issues that can be raised from the explanation provided by the respondent: (1) the composition of the local management committee and how it ensures local

participation, and (2) the desire to implement projects that are quite different from what the district assemblies undertake. While the MDF Act 912 was enacted in 2016, the guideline for the implementation of the MCDS was only finalized in 2020.⁶⁶ The long delay means that the LMCs were at the early stages of implementing the MCDS at the time of this study. Similar to the argument made by Lujala and Narh (2020), there are concerns about the composition of local management committees since only one is created for each mining district. For each district, there are several communities that make up the catchment of a mining company. Using the case of the Ellebelle District, where Adamus Resources operate as an example, the main communities that make up the catchment of the mining company are Nkroful, Teleku Bokazo, Salman, and Anwia. The company also has concessions in Kikam and Asanda but is yet to begin extraction in those parts of the district. As a result, Kikam and Asanda are yet to be included in the LMC since royalties are supposed to be spent on areas where the mineral was extracted.⁶⁷ In that regard, concerns can be raised about the possibility of the LMC leadership being biased toward one community over others.

With regards to the LMCs for the active mining communities, it was revealed that both the youth and women's representatives were from Nkroful, the capital of the Ellebelle district.⁶⁸ This means that Nkroful had two extra representatives on the leadership board of the local management committee over other communities. In that regard, there is a chance that Nkroful will have a greater edge over other communities in getting their projects prioritized. Instead of one youth and women's representative for the entire mining district, each community should have been allowed to elect two grassroots members to join the leadership of the LMCs. Having two grassroots members (male and female) for each community will help ensure that the actual needs of the community are presented to the LMC and not the aspirations of traditional leaders and assembly members who have their personal and political motives. Additionally, equal representation of communities on the leadership of the local management committee might help eliminate internal politics and conflicts over which project gets prioritized ahead of the other, helping ensure the success of the MCDS. Therefore, equal representation of communities on the local management committees, with increased

⁶⁶ Key Informant Interview 10, March 2021. See The MDF Board (2020).

⁶⁷ Key Informant Interview 11, March 2021.

⁶⁸ Key Informant Interview 15, March 2021.

involvement of grassroots members, will be essential to promoting participatory development through the Mining Community Development Scheme.

Besides issues surrounding the composition of LMCs, of greater concern is the need to implement projects that are sustainable and capable of addressing the development challenges faced by local residents of mining communities. According to the respondent with the MDF secretariate, various LMCs, in the first year of implementation, submitted proposals for the construction of social amenities such as schools, police stations and public toilets.⁶⁹ The nature of the projects implemented highlights the poor state of mining communities as well as the low level of development in the country as a whole. However, the implementation of small projects like public toilets and police stations is not significantly different from what district assemblies undertake as part of their development mandate. The LMCs are restricted to small projects like public toilets due to fund limitations emanating from disbursement delays as well as variations in payment over time. As argued by the representative of the MDF Secretariate, mineral royalties are easily repurposed to meet other government priorities hence the delays and inconsistencies in payments.⁷⁰ Therefore, larger and more consistent payments might help LMCs to undertake bigger projects than what they have been able to undertake so far. Also, concerns were raised by a District Development Planner about the usefulness of implementing such small projects since host communities had already benefited from similar social amenities provided by mining companies as part of their CSR and remain dissatisfied.⁷¹

It is quite unfortunate that the government (Ministry of Finance) still has so much discretionary power over mineral royalties despite enactment of the MDF Act 912. Speaking about the central government exercising too much control over mineral royalties and the lack of accountability in a summative assessment of the MDF Act 912, the participant with the Ghana Chamber of Mines explained:

My point on the MDF is that it is an arrangement that seeds money to the community, a very tiny amount to the community, and the remaining chunk will end up with the Ministry of Finance where there is no control over it [no accountability]; or end up with the chiefs and there is no control over it; or end up with the parastatals involved

⁶⁹ Key Informant Interview 10, March 2021.

⁷⁰ Key Informant Interview 10, March 2021.

⁷¹ Key Informant Interview 25, March 2021.

in the mining sector, again where no one has control over it or with the research institutions where no one has control over it. So, the only share, potentially, where you can find some form of control is what is given to the assemblies and then what ends up with the Mining Community Development Scheme. If you combine the two, they will not add up to more than 7% of the mineral royalty that ends up at the community. So why will you create a law that provides guidelines for 7% of the revenue (Key Informant Interview 9, March 2021).

In line with the limitations highlighted in the narrative presented, various participants of the study expressed the need to increase the amount allocated to the development of mining communities.⁷² While there is room to improve the type of projects undertaken, the share of mineral royalties assigned for development in mining communities is quite small for the implementation of projects capable of resolving challenges faced by local residents, such as unemployment. Besides the need to create jobs to resolve the unemployment problem among local residents, capital-intensive projects like roads which are capable of opening up mining communities to various economic activities, have not been feasible due to the negligible amount of mineral revenues returned to the local level. Interestingly, the Ghana Chamber of Mines (2021b) hold a similar opinion that the share of mineral royalties for the development of host communities is woefully inadequate. Hence the Chamber calls on the government to increase MDF allocations from 20% to 30%, earmarking more funds to develop host mining communities. Given that there is some form of clarity on the purpose of the MDF, an increase in allocation to 30% might be beneficial towards development and poverty reduction in host communities.

It is, however, important to note that calls for an increase in mineral royalties sent back to mining communities are a tricky political issue, similar to the request made by the members of the Western Regional House of Chiefs after the discovery of oil (see Frimpong 2015). The politics emanate from the fact that Ghana is a unitary state that relies on revenues from different regions, districts, and traditional areas. The Constitution of Ghana vests all natural resources in the state via the President, who holds it in the trust of the people. In that regard, revenues that accrue to the country from natural resources, by implication from the constitutional provision, belong to the entire country (Adomako-Kwakye 2018). In that regard, the state is

⁷² Key Informant Interview 8, 9 &10, February-March 2021.

supposed to utilize the funds to improve the lives of all citizens, not only local residents of mining communities. Therefore, calls to increase the fraction of state revenues allocated to specific communities will be seen as the government prioritizing or investing more into the development of resource-rich areas over less endowed parts of the country.

To some extent, the poor state of mining communities in Ghana is a function of the underdeveloped status of rural parts of the country and the nation to a larger extent. Despite the allocation of mineral royalties for their development, host mining communities remain poor in Ghana. The recent enactment of the MDF Act 912 failed to address major issues associated with the usage of mineral royalties in terms of the confusion surrounding the purpose of payments to chiefs and traditional councils as well as the lack of accountability associated with the district assemblies. However, the quest for greater accountability and transparency in the use of extractive revenues, Hilson and Maconachie (2009) argue, is unlikely to reduce rent-seeking behaviour and poor governance without fundamental institutional changes. Also, the kind of projects undertaken by the LMCs as well as the district assemblies, such as public toilets, may not have significant development and poverty alleviation potential. Just as mineral royalties have been poorly managed to develop and alleviate poverty in host communities, the payment of compensation is expected to offset the adverse effect of large-scale mining operations on local residents.

4.7 Compensation & Resettlements

The need to resettle or compensate local residents is an inevitable aspect of mineral extraction since mining companies deprive the user rights of land owners or lawful occupiers of their acquired concession. The failure to appropriately resettle or compensate local residents in mining host communities underscores how poverty is created and re-created under conditions of capitalist accumulation (see Harriss-White, 2006; Bond, 2008; Arrighi *et al.*, 2010). The payment of compensation to affected individuals is critical to mitigating the hardships faced by expropriated persons as well as attaining the sustainable development of host communities (Kidido *et al.* 2015).

In Ghana, section 74 (1) of the Minerals and Mining Law, Act 703 of 2006⁷³ stipulates that the owner or lawful occupier of the land may be entitled to compensation for a) Deprivation of the use or a particular use of the natural surface of the land or part of the land; (b) Loss of or damage to immovable properties; (c) In the case of land under cultivation, loss of earning or sustenance suffered by the owner or lawful occupier, having regard to the nature of the interest in the land; and (d) Loss of expected income, depending on the nature of crops on the land and their life expectancy. In essence, the law states that the owner or lawful occupier of the awarded mining area is to be compensated for any crop on it and for deprivation of the use of that land. Once compensation is paid, the mining company can enter the land to start their operations while the recipient of the payment is no longer allowed to erect any immovable structure or plant cash crops.⁷⁴ Compensated farmers are only allowed to cultivate food crops.

The term ‘resettlement’ is used to denote not only the physical relocation of people from one place to another but also the comprehensive process of livelihood restoration and social integration at the new location (see Adam *et al.* 2015). Indeed, resettlement is a comprehensive process that spans well beyond the physical relocation of affected households. In Ghana, Legislative Instrument (LI) 2175 of the Minerals and Mining Regulations (2012) is the main document that provides the framework for resettling communities affected by mining in the country. Section 6 (1) of L.I. 2175 provides that “...*the inhabitants shall be resettled by the holder on suitable alternative land, and the resettlement shall have regard to the economic well-being and sociocultural values of the persons to be resettled, with the objective to improve the livelihoods and standards of living of those persons.*” At the core of the legislative instrument is the need to ensure that the livelihoods of resettled communities should not be worse off compared with their situation before the move. In other words, the resettlement process must include a plan on how livelihoods will be restored in order to ensure that affected individuals are better off.

Despite the compensation and resettlement laws of Ghana clearly stipulating the importance of ensuring that affected individuals are better off, various respondents in Salman

⁷³ See Republic of Ghana (2006).

⁷⁴ Key Informant Interview 23, March 2021.

and Akyempim revealed how local residents have been marginalized and deprived, living in hardship, despite the implementation of the mining regulations. The sources of hardship experienced by local residents following compensation and resettlement are discussed in the following sub-section.

4.7.1 Inadequate Compensation

Throughout the study, respondents whose lands were acquired as part of the mining lease in both communities were duly compensated as stipulated by the laws of the country. However, it was established that most of the compensated local residents felt the monies received were not enough for the crops that were on the farmland.⁷⁵ The Mineral and Mining Law, Act 703, requires mining companies to consider the life expectancy of crops (different lifespans such as maize and cassava being annual while cocoa and rubber are perennial plants) and their expected market value during compensation calculations and negotiations. However, companies tend to ignore these specific stipulations in the law and, in turn, exacerbate poverty and the marginalization of local residents in many mining communities (Andrews 2018). Comparing the amount received as compensation to what they would have gained from keeping their farms, some respondents argued:

I think that if I had maintained my farm to date, I would have gotten more. I would be getting money from the cocoa as well as the other crops like cassava (Salman Interview 19, March 2021).

... since the mining company has purchased the land, the people are no longer able to cultivate the cash crops. The people are limited to producing crops that will not last long, such as cassava and others. They were paid but the money they got isn't better than what they would have gotten if they continued to harvest their cocoa on a yearly basis (Akyempim Interview 3, April 2021).

The sentiments raised by study participants about the inadequacy of compensation paid by mining companies are consistent with other studies (see Adonteng-Kissi 2017; Andrews 2018; Essah 2022). The inadequate amount of money received as compensation contributes to deepening poverty and hardship among local residents in the mining communities. It is, however, important to note that while the Mineral and Mining Laws state that compensation

⁷⁵ Akyempim Interview 3, April 2021; Salman Interview 8 & 13, March 2021.

should be paid for the loss of crops and deprivation of land, it was established that part of the payments due to farmers often goes to the chiefs.

4.7.2 Elite Capture of Compensation

Chiefs and traditional leaders receiving a share of farmer's compensation is a by-product of the complex land tenure arrangements under customary law in Ghana and Africa at large. In Ghana, land ownership rights and tenures are administered in a plural legal environment, with a larger fraction of the land under the control of the customary system. In fact, customary lands form about 78% of the total land area in Ghana, with about 20% controlled by the state under statutory law and the remaining 2% held in a dual relationship between the two legal entities (Ministry of Lands and Forestry 2003). The customary land tenure system in Ghana makes it common to have multiple interests and rightsholders co-existing over a given area with different entitlements and claims. As a consequence, there is very little clarity on the rightful recipients of compensation, the proportions to be received (if the amount is to be shared among claimants) and the conditions under which claims can be made (Kidido *et al.* 2015).

As land custodians, local chiefs were entitled to a share of the compensation paid for every farm affected by the mining operations. This is to say that the alleged low amount of compensation stated by respondents of the study was conditioned by the fact that a part of their payment went to the chiefs, royal family and traditional authorities of the community as owners of the land. One respondent in Salman argued that when the compensation was paid, '*most of the money went to the chief and elders; just a small fraction was given to us.*'⁷⁶ The sentiments raised by the respondent were corroborated by the assembly member of the community when he stated that '*the land was a stool land [owned by traditional leaders], so the compensation for the land will go to the royals.*'⁷⁷ In essence, it will be difficult for expropriated individuals to transition into new livelihoods since a fraction of the capital needed to support new economic ventures went to the traditional authorities.

⁷⁶ Salman Interview 6, March 2021.

⁷⁷ Key Informant Interview 15, March 2021.

It was also alleged that Adamus Resources were forced to purchase instead of leasing the land from the chief and the leaders of Salman.⁷⁸ To one respondent, the community leaders forcing Adamus Resources to purchase the land instead of a more favourable agreement for the company is the reason why they have not been responsive to the needs of Salman.⁷⁹ Additionally, it was revealed that the compensation received for crops was lower for individuals who were farming on share-cropping arrangements. In Ghana, share-cropping is a common system or agreement that grants individuals access to agricultural land. Share-cropping also helps local chiefs and individual landlords to obtain their own cash crop farms through an agreement where the established farm or produce is divided between the tenant farmer and land owner (see Baah and Kidido 2020). In essence, the compensation for some cocoa farms was divided into three, with a portion given to the land owner since they usually receive a share of the annual yield or profit based on the share-cropping arrangements in place.⁸⁰

4.7.3 Poor Usage of Compensation

Notwithstanding reservations among local residents about the amount paid as compensation, it was also established that a lot of the recipients failed to properly invest the money received. At the individual level, the increased incidence of poverty in host mining communities has been partly conditioned by the failure of local residents to make the most of compensation paid for depriving them of their user right to land. Providing examples of how compensation was poorly used, some respondents argued:

You see, many of them are uneducated and were just farmers. And they received about 300 million old cedis (GHC 30,000). Most of them deposited the money at the bank and were not working. So they kept spending the money. At the beginning when the money was paid, about 100 million was wasted as the people decorated their houses. Some of them didn't own TVs and stuffing chairs. So, as they have received the money, they must acquire all of those things. By the time they have purchased all of those stuff, they have lost their livelihood income. From 2010 to date, am sure most of them exhausted the money as early as 2015. So, I am not lying to you when I say that there is a lot of hardship here (Salman Interview 3, March 2021).

⁷⁸ Salman Interview 8, March 2021.

⁷⁹ Salman Interview 5, March 2021.

⁸⁰ Salman Interview 8, March 2021.

Hmmm. I wish you were here to see what happened in this community the day the compensation was paid. Some of the people wasted the money. There was a man who wasted the money at drinking spots and chop bars; he was using beer to wash his hands after eating and the ladies were all over him. He even passed recently. So, the money that was paid brought out the egos of people (Salman Interview 8, March 2021).

The narratives presented demonstrate how the allegedly inadequate amount of money received as compensation by local residents was wasted. The failure to make the most of compensation is a function of the low level of education among recipients, as they were unable to invest in sustainable livelihoods that would replace what was lost to the mining company. As stated by a key informant at Akyempim, *'these were people who will struggle to count 500 cedis; how much more receiving 5,000 or 10,000 cedis'*.⁸¹ Compensated local residents tend to invest in the transport business or other business ventures, which often fail to work due to various reasons, including the lack of adequate knowledge of how to manage them.⁸² In essence, the hardship and impoverishment of local residents in host communities have been partly conditioned by poor usage of compensation paid by mining companies. During the interview with the Mining Director of the Environmental Protection Agency about the high level of impoverishment in host communities, he argued that:

... they don't allow themselves to go through the rudiments of how to reinvest the money so they can't sustain it for the rest of their lives. Some of them will tell you that they have received sums of money you haven't seen in your life. And you see him and he is living in poverty (Key Informant Interview 4, January 2021).

The narrative highlights the importance of introducing capacity-building programmes on how compensation recipients can invest and properly manage their finances. Such capacity-building programmes can be championed by state regulatory bodies, mining companies and civil society organizations. Besides the issues about inadequate and poor usage of compensation, the hardship experienced in host communities was also conditioned by unkept promises (including job recruitment) made during resettlement negotiations with mining companies.

⁸¹ Key Informant Interview 28, April 2021.

⁸² Key Informant Interview 4, January 2021.

4.7.4 Marginalization from Unkept Resettlement Promises

The level of benefits received by a resettled community often depends on their knowledge of the rules and regulations, which, in turn, improves the strength of their bargaining. As argued by Twerefou *et al.* (2015), a typical host community may not have the knowledge and skills to better negotiate for resettlement, while mining companies usually have the personnel and resources needed to tilt negotiations in their favour. In that light, mining companies tend to have the upper hand over communities during resettlement negotiations. The first thing mentioned by the chief of Salman about the community's plight was the fact that they lacked knowledge of the law and did not have a lawyer to guide them during resettlement negotiations with Adamus Resources.⁸³ The only substantial benefit of their resettlement was the improvement in the kind of buildings constructed by the mining company for the community. Figure 4.9 provides images of the nature of buildings in Old and New Salman.



Figure 4.9: Images of the nature of buildings in Old and New Salman.
Source: Adopted from Cision (2012).

For residents in Salman, the resettlement was the primary source of their impoverishment. In terms of livelihood restoration, the only activity undertaken by the mining company was the one-time provision of planting materials to interested farmers, a programme labelled as poorly organized and messy by the assembly member of Salman.⁸⁴ As argued by various respondents of the study, the resettlement has caused the collapse of previously thriving businesses and livelihoods. While a baker's business collapsed due to challenges accessing a

⁸³ Personal communication with the chief of Salman, March 2021.

⁸⁴ Key informant interview 15, March 2021.

flour processing facility,⁸⁵ food vendors observed a significant drop in sales because the unemployment situation in the community had reduced the purchasing power of local residents, especially after the compensation had been exhausted.⁸⁶ Sharing the plight of the community, one respondent argued:

Resettlement is not a good thing when a mining company comes. If the arrangement between the community and company are not well done, it will destroy the town. Due to the need for money, a fraction will always back the company. They will pay the compensation and that gets exhausted in no time. The arrangements that will ensure the future of the community are not done. If you go to some mining communities, they have an agreement that the company must pay an allowance every year for resettling the community. This company could have given stuff to the elderly in the community; even if it is just half a bag of rice every year. But they have not done anything like that. And most of the elderly failed to use the money to educate their kids to a level that they can take care of the family... So, we have a problem in this town. The community is not united. If we were united, most of these problems can be resolved (Salman Interview 3, March 2021).

The narrative highlights the importance of putting in place the right arrangements during the negotiations phase of the resettlement process. The Salman case emphasizes the need for host communities to have a united front when dealing with mining companies. The biggest mistake made by the community was the fact that the resettlement terms or promises were not officially documented. According to local residents, all they received in addition to the new homes was a relocation allowance of 700 Ghana Cedis (approximately US\$ 100) given to each household.⁸⁷ Speaking about resettlement arrangements that never came to fruition, one respondent argued that *'they promised to take good care of us, providing food every month but have never done that since we came.'*⁸⁸ Unfortunately, there is no legal document that can be used by the community to hold Adamus Resources accountable for the promises made as part of the resettlement negotiations. The assembly member of the community recounted numerous attempts made through meetings and letters to get Adamus Resources to meet the needs of the community.⁸⁹ As argued by Twerefou *et al.* (2015), it is very difficult for local residents to follow up on promises and other issues that the mining companies need to provide

⁸⁵ Salman Interview 2, March 2021.

⁸⁶ Salman Interview 17 & 18, March 2021.

⁸⁷ Salman Interview 4, March 2021

⁸⁸ Salman Interview 13, March 2021

⁸⁹ Key informant interview 15, March 2021.

once they have been moved to the new location. The lack of legally binding documents that will hold Adamus Resources accountable has left the community powerless and marginalized. For local residents in Salman, embarking on demonstrations is their only avenue to get the attention of the mining company and state authorities about the lack of jobs and the adverse living situation at the new location.

It is fair to argue that Adamus Resources had shown little commitment to livelihood restoration after the Salman resettlement due to the lack of stability in the ownership and management of the mine. The Nzema gold project of Adamus Resources has undergone multiple ownership and management changes over the years, which has potentially affected their commitment to resettlement agreements with the community. While the name of the company has remained over time, ownership of the mining lease changed following the merger between Australia's Adamus Resources and Canada's Endeavour Mining in 2011 (Topf 2011). Endeavour Mining later sold the lease to BCM International in 2018 (Leotaud 2018). As argued by Owen and Kemp (2015), expansions, acquisitions and divestments tend to affect the availability of revenue and resources to support resettlement programmes. Interestingly, the merger with Endeavour Mining happened prior to the completion of the Salman Resettlement project in 2012. Following the merger in 2011, Topf (2011) reported that Endeavour Mining was expected to "put at least US\$160 million towards paying down debt on the Adamus' Nzema project and to reduce gold hedging volumes". Since the merger in 2011 was expected to provide at least US\$160 million to service accumulated debt on Adamus' Nzema project, it can argue that the mining company failed to honour its resettlement promises to the community in a bid to reduce the cost of their operations in the area.

It is important to note that at the time of negotiations for Salman's resettlement in 2010 (Cision 2012), the legislative instrument, L.I. 2175, had not been passed. Nevertheless, Salman's resettlement was undertaken based on the laws stipulated in the Minerals and Mining Act 703 of 2006. While Act 703 covers the need for mining companies to ensure that resettled communities are better off, it did not provide a definite framework or guidelines until the enactment of L.I. 2175 in 2012, which places emphasis on consultation, negotiation, and bargaining. This is to say that Salman's resettlement was not undertaken with public consultation of local residents since the negotiations and bargaining with the mining company

were handled by the chief and a selected number of community leaders. As emphasised in the interview transcript, the lack of unity among the representatives of the community derailed the negotiations; hence they are ill-equipped to hold the mining company accountable for their needs. Interestingly, the legislative instrument, L.I 2175, does not have provisions for monitoring and evaluation of mining companies with regards to upholding the outlined resettlement framework in the laws of the country. As a result, the impoverishment of local residents has been partly conditioned by poor monitoring and evaluation of the resettlement programme by regulatory bodies. The poor level of monitoring and evaluation of resettlement programmes, which is a common phenomenon in developing countries like Ghana (see Terminski 2012), often leads to the marginalization of local residents who have been relocated by mining companies. In that regard, the marginalization of local residents as a result of poor monitoring and evaluation of resettlement programmes can be seen as a consequence of the reduced capacity of state institutions to regulate extractive industries following implementation of liberalized reforms (see Campbell 2010).

4.8 Conclusion

Based on the empirical evaluation of the development linkages and poverty outcomes of large-scale gold mining in Ghana, this chapter has revealed the uneven impact of the extractive activities of multinational companies. A review of the development outcomes of large-scale gold mining operations on local residents in Akyempim and Salman demonstrates the importance of context and situated analysis. As argued throughout this chapter, local residents in both communities have been frustrated by the unemployment situation and the limited opportunities to work with their respective mining companies as a result of the capital-intensive mode of operation. However, respondents in Akyempim were more appreciative of the fact that the mining company had provided most of their infrastructural needs and showed more commitment to addressing their challenges following the signing of the MOU.

In the case of Salman, not only are local residents struggling to get employed by the mining company, but they also have most of their infrastructural development needs unmet following the resettlement. Conceptualized as a form of local content policy at the subnational level, the availability of the MOU in Akyempim and the lack thereof in Salman was a key factor accounting for variations in development outcomes of large-scale mining. The case

studies highlight differences in the corporate culture and management approach of multinational mining companies. As argued by Ackah-Baidoo (2012), there are differences in the commitment to providing the basic needs of local residents in host communities or the standards employed in subsidiary operations of multinational companies compared to where they are headquartered. The cases of Salman and Akyempim are also consistent with arguments about the enclave nature of capital-intensive extractive industries, evident in the limited linkages to local economies (see Ablo 2015; 2019; Ackah-Baidoo 2012).

While various initiatives are often undertaken by large-scale mining companies – including payment of compensation, alternative livelihood programmes and infrastructural development projects – to mitigate the adverse impact of mineral extraction, they have been largely unsuccessful in alleviating poverty due to varying reasons ranging from poor planning and community disinterest in implemented projects to mismanagement of compensation and revenues, among others. In terms of making the most of the large-scale mining sector, this chapter has shown the importance of putting in place the right agreements – similar to the MOU in Akyempim – as a means of protecting the interest of local residents while holding extractive industries accountable to the development needs of host communities. Having such legal documents developed might be vital to securing the commitment of mining companies to being responsive to the needs of local residents in host communities. As argued by Ablo (2019), local content policies like the MOU can play an essential role in addressing the enclave status of the extractive industry by engendering the use of personnel, goods and services within the domestic economy. This study has also shown the importance of jobs and incomes to poverty alleviation in host mining communities. While the availability of social infrastructures such as schools and health facilities is important, access to such basic entitlements is often mediated by incomes hence the need to rethink how poverty is conceptualized and measured as a multidimensional phenomenon. While some local residents in Akyempim remain optimistic about the positive impact of large-scale gold mining operations thanks to the MOU, those in Salman have developed an interest in securing an area to mine gold on a small-scale basis for survival.

Chapter Five

Small-Scale Mining for Poverty Alleviation in Ghana: A Myth or Reality?

5.1 Introduction

The expansion of the large-scale mining sector has been accompanied by an equally dramatic increase in small-scale mining in Ghana, despite state neglect and bias toward attracting foreign investment from Multinational Companies (Ayelazuno & Mawuko-Yevugah 2019; Hausermann *et al.* 2018; Hilson & Maconachie 2020). The sector significantly contributes to Ghana's gross domestic product (GDP) and is an essential source of employment and income for miners and their dependents at the local community level (Wilson *et al.* 2015). For instance, in 2018, the small-scale mining sector contributed about 43% to the total reported gold produced in the country (Adu-Baffour *et al.* 2021). Based on purchase and export records by the Licensed Gold Exporting Companies (LGECS), small-scale miners produced 1.175 million ounces of gold in 2020, a decline from 1.588 million ounces in 2019 (Ghana Chamber of Mines 2021a). Reasons for the decline in output were tied to Covid 19 induced mobility restrictions and associated challenges in accessing inputs, as well as the introduction of withholding tax on the output of small-scale miners at the point of export. It is worth pointing out that output from the sector is considerably higher than reported figures, given that the introduction of a 3% withholding tax on gold produced by small-scale miners in 2019 led to an expansion in the smuggling of the precious metal out of the country (see Ghana Chamber of Mines 2021b; Nggenbe 2021).

Besides the issue of smuggling of their output in a bid to evade paying the withholding tax, various scholars (Hilson 2017; Owusu-Nimo *et al.* 2018) argue that the small-scale mining sector, especially galamsey or illegal activities, have the status of being the greatest social 'menace' in Ghana due to the environmental havoc associated with their operations. Galamsey operators are the topic of regular public condemnation by both the media and government as they are accused of "disturbing and degrading landscapes without environmental rehabilitation, disrupting social life due to drug and alcohol usage and prostitutes, and contributing to the militarization and influx of firearms into the mining sector" (Tschakert 2016, p. 123). On the other hand, scholars such as Hilson and Banchirigah (2009) and Wilson *et al.* (2015) contend that the small-scale mining sector has become a safe haven or means of survival for locals in

rural Ghana owing to factors including decreasing productivity due to climate variability and inadequate support or the loss of agricultural input subsidies such as for fertilizers. People diversify their livelihoods away from agriculture into the non-farm economy as a resilience strategy to the effects of climate change and other shocks (Asravor 2018; Mohammed *et al.* 2021). According to Wilson *et al.* (2015), increased interest in the small-scale sector is not only because gold mining is often more remunerative than farming but also due to the higher incidence of poverty and the lack of other livelihood alternatives compared to the urban areas (Wilson *et al.* 2015). Unlike the large-scale industry, the barriers to entry are low for small-scale mining. Beyond being physically capable, small-scale miners typically do not need to meet any training or educational requirements (Schwartz *et al.* 2021). The ability of people to join and disengage from small-scale mining at any time can be a valuable asset for individuals, especially farmers, during the off-farming season.

In the context of this study, an individual or household is said to be living in poverty when they lack adequate and sustainable access to income and resources to meet basic needs or entitlements. Therefore, relying primarily on narratives from interviews with local residents and key stakeholders of the industry, this chapter reviews the importance of small-scale mining to livelihoods in rural Ghana and examines its contribution to development and poverty alleviation. Besides this introduction, the chapter is organized into four main sections. The first section after this introduction discusses the allure of small-scale gold mining using the diverging fortunes of the communities of Salman and Akango in the Western region of Ghana. The section reveals why local residents are attracted to small-scale gold mining despite being located within the concession of Adamus Resources – the large-scale mining company in the Nzema area. Salman has not been able to secure an area for small-scale mining despite local residents expressing an interest in partaking in the sector as a livelihood activity due to the broken relationship between the community and Adamus Resources. Yet, small-scale gold mining is an active economic activity for local residents at Akango because the community managed to secure a portion of the concession of Adamus Resources.

Highlighting the importance of the sector to livelihoods, the second section reviews the economic life surrounding small-scale gold mining at Akango. The section discusses the extent to which livelihoods in the community are moulded around the small-scale mining sector and

reviews the economic linkages associated with operations in the community. It is argued that the economic linkages associated with small-scale mining tend to benefit non-tradable sectors like housing and retail. However, the impact of the extractive sector on agriculture is mixed. While generated income from small-scale mining may serve as a source of capital for investment, increased competition for land and labour adversely affects the productivity of the agricultural sector. The section before the conclusion evaluates the poverty outcomes of small-scale mining by reviewing the potential of utilizing the extractive sector as a vehicle for rural development. The critical assessment shows that the nature of operations and the labour processes involved in the extractive sector does not necessarily facilitate the accumulation of sufficient income for a majority of the people involved in small-scale mining to move beyond subsistence. In the concluding section, it is argued that while small-scale mining offers opportunities for a relatively larger number of people to earn an income, the inherent class-based or hierarchical payment structure does not contribute to narrowing the gap between the rich and poor but rather increases social inequalities. Additionally, poverty reduction is hindered by fluctuations in productivity and earnings from small-scale mining, which has a corresponding effect on other sectors of the local economy.

5.2 'Allure' and 'Pursuit' of Scale-scale Gold Mining

The rapid expansion of small-scale mining has been debated in the literature and can be examined along a broad spectrum (see Hilson 2009; Hilson & Garforth 2012; Hilson & McQuilken 2014; Wilson *et al.* 2015). At one end of the spectrum is the 'demand pull' school of thought that holds the view that small-scale mining is populated by entrepreneurs or businessmen looking to 'get rich quick' (Hilson 2009). According to Hilson and Garforth (2012), the lure of earning fast money motivated a significant number of entrepreneurs to participate in the sector. On the other end of the spectrum is the 'distress-push' school of thought, which recognizes the expansion of small-scale mining activities became strongly linked to the hardship faced by vulnerable groups, including women and children (Hilson 2009; Hilson & Banchirigah 2009). Various scholars (Banchirigah 2006; Hilson & Potter 2005; Wilson *et al.* 2015) have highlighted the fact that for many in rural Ghana, small-scale mining represents work intended to meet livelihood needs, often driven by a lack of alternative sources of income, hence becoming a primary means of survival.

In the context of this study, most of the survey respondents (79.1%) in the Salman community advocated that they should be allowed to engage in small-scale gold mining activities due to the loss of livelihoods emanating from the extractive activities of Adamus Resources. As argued by Hilson and Garforth (2012), small-scale mining has become an indispensable activity for rural households. At Akango, the third community selected for this study, engagement in small-scale mining was tied to the need for survival in an area devoid of economic opportunities. The lives of local residents are moulded around small-scale mining activities despite being located within the concession of Adamus Resources (see Figure 5.1). Located in the Nzema East district of the Western region of Ghana, Akango is a community well noted for small-scale gold mining activities. Akango is surrounded by the river Ankobra and swampy areas with no through-road; hence there are limited opportunities for the expansion of the community beyond its initial boundaries.

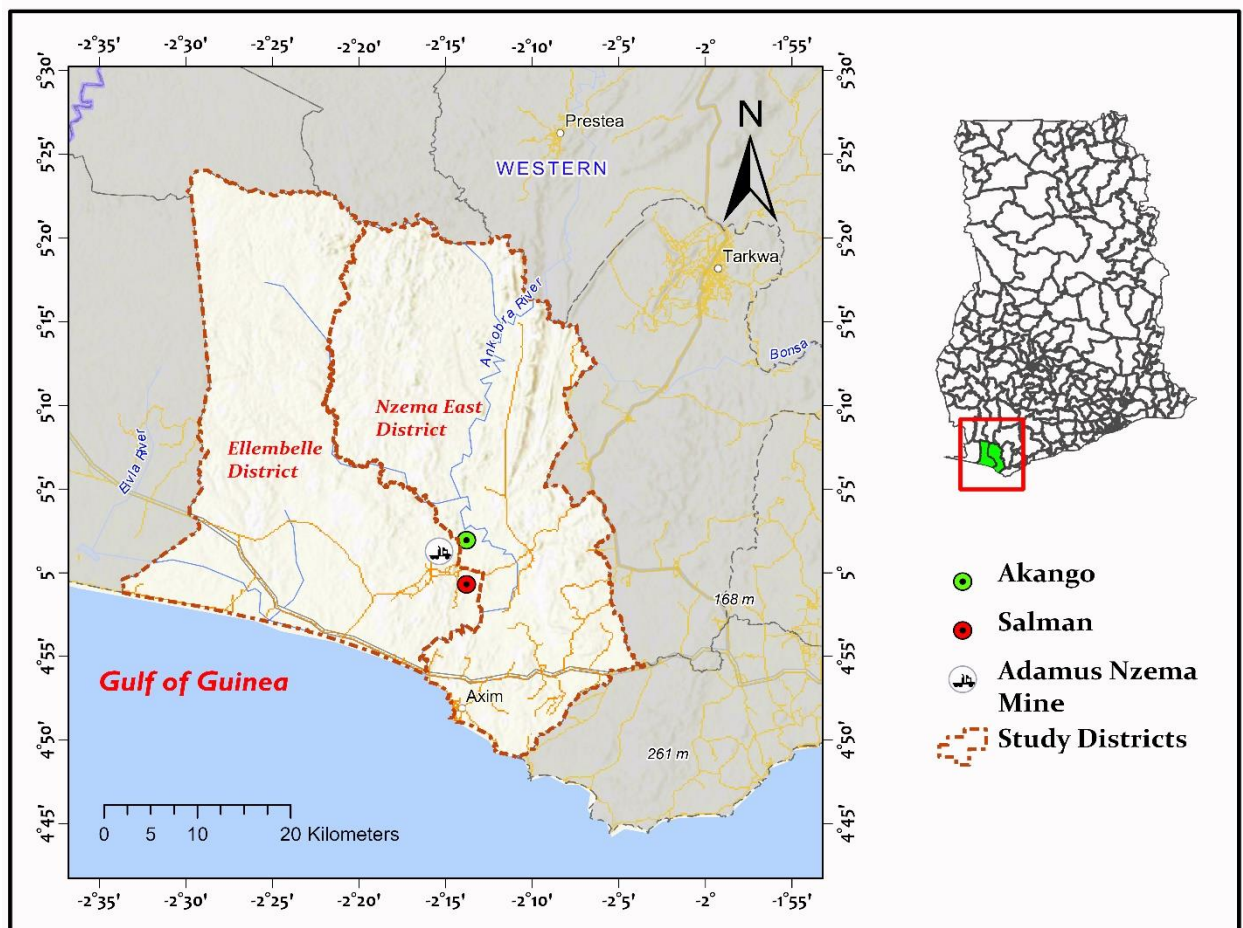


Figure 5.1: Map of Akango and Salman with the location of Adamus' gold mine.
Source: Author's Construct.

According to the *Tufuhene*, the Regent of the community, Akango has always attracted migrants due to the presence of gold, with small-scale mining active about 15 years ago before the acquisition of the area as part of Adamus Resource's concession.⁹⁰ Highlighting the importance of small-scale mining activities in the community, the Assembly member of Akango explained the impact of Adamus' acquisition of the area under their concession by stating that:

... from that time (after the acquisition of the concession), the livelihood of the youth, especially the women, was a problem; they didn't have anything to do except this galamsey activity. So, people were dodging and engaging themselves in illegal mining. While they were doing so, there were a lot of problems. Police were coming to arrest them... and when you don't have 2000 Ghana cedis [for the fine], maybe you will go to jail (Key Informant Interview 5, January 2021).

Following the acquisition of most of the farmlands under Adamus' concession, locals were pushed into the small-scale mining sector due to the lack of alternatives. The narrative is consistent with arguments that people engage in small-scale mining operations, whether legal or not because there are few viable income-earning alternatives (Hilson and Garforth 2012; Wilson *et al.* 2015). As established in the case of Salman, local residents expressed an interest in small-scale mining due to the limited income-earning opportunities following resettlement by Adamus Resources. Attempts to secure land for small-scale mining activities in Salman since 2015 have proven futile as Adamus Resources has refused to relinquish control of acquired lands under their concession.⁹¹ In the case of Akango, the community has been successful in securing land from the mining company for small-scale mining operations. Explaining the unique circumstances that helped his community to secure an area while Salman has not been successful, the chief of Akango argued:

We don't get any assistance from them [Adamus Resources] whenever we send our request. That's because they barely worked on our land. And the little area they worked in has been abandoned for a while..., and that is the area we have managed to secure for our community mining. They barely worked in the pit I mentioned. And the young guys in the community were familiar with how to do the galamsey. So, since there are no jobs in the area, we pleaded with them to give us a small area for us to feed off so that the community will generate some income to cater for our needs (Key Informant Interview 13, March 2021).

⁹⁰ Key Informant Interview 14, March 2021.

⁹¹ Salman Interview 3, March 2021.

The Regent of the community gave an account of how negotiations with the mining company transpired by stating that:

I made them understand that there is no way the lorry road that passes in this town leads to another community. It ends here. And then the community itself is more or less an Island, so during raining season, we find it very difficult to survive. And there is no economic activity in the area here. We don't have any market whatsoever. Our main source of livelihood depends on the land... for survival, and your employment rate is also very limited. You are saying that it is your concession, so for that matter, we don't have to do our farming work again. Then how do we survive? What do we do? When you come and meet us during raining season; it is a very bad experience during the raining season. And the Minister, the former MP, honourable Catherine Ablema Afeku, understood our point, and then Madam Angela List [CEO of Adamus Resources] in a way also agreed with us. Out of that, we brought in the Minerals Commission people and in the process, gave us 52.7 acres of land for community mining (Key Informant Interview 14, March 2021).

The narratives portray the dire living circumstance of the community following the acquisition of the large-scale mining concession. The explanations provided by the Chief and his Regent show that the land awarded to the community was basically a goodwill gesture, an act of empathy from the mining company. Interestingly, speaking with the Community Mining Manager of Adamus Resources about other communities like Salman getting land assigned for small-scale mining, he stressed that:

... any community that is interested should put in the request and management will look at the availability of the area and then the comportment of the community members that are actually interested in the mining (Key Informant Interview 26, March 2021).

The community mining manager also stressed that while Adamus Resources wants to secure its social license with communities, the company will only assign an area for small-scale mining if local residents comport themselves well: this is to say that the fate of host communities is tied to having a cordial relationship with extractive industries who have legal access rights to gold-rich lands. As emphasized by Elwood *et al.* (2017) and Feldman (2019), the exploitation and impoverishment of the poor and marginalized groups are mediated and sustained by social relations. The comment about community comportment brings to the fore the argument that poverty is produced and perpetuated through intersecting power relations (see Feldman 2019; Sharma *et al.* 2020) as Adamus' legal rights to land have prevented local residents from addressing their unemployment and hardship through gold mining on a small-scale basis. With local people dispossessed of their land and livelihoods with very little

prospect of inclusion in the capitalist project (Geenen 2019), affected communities like Akango and Salman turn to small-scale mining due to conditions of poverty and unemployment following displacement. The presence of artisanal miners on the concession of large-scale extractive projects has been a source of tension between the two sub-sectors of the gold mining industry (Aubynn 2009; Geenen & Verweijen 2017). What remains unclear is whether small-scale mining is a viable solution to poverty in rural Ghana.

According to an official of the Minerals Commission in Accra, the small-scale mining sector can be a very good vehicle for poverty alleviation in rural Ghana if it is managed well.⁹² That point of view was shared by the representative from the Solidaridad Network.⁹³ Explaining why small-scale mining is well received in some communities over large-scale operations, the representative of the Minerals Commission in Accra argued:

... I always tell my people that small-scale operations enjoy a lot of support at the community base than even the large-scale. What I have seen is that the small-scale miners are with them; they become more or less the pivot around which the local economy thrive. They marry their women, they associate with them, and they rent the rooms/houses that they have built. You know, when it comes to employment, they do the chunk of employment. You know, the small-scale sector does a lot of employment of the locals. So it enjoys a lot of support. But when you talk about capital investment, then you are talking about the large-scale. They are interested in what they can eat daily. And since the small-scale mining gives them that leverage, they tend to align more with the small-scale; the legal and even illegal ones enjoy a lot of support at the community level. (Key Informant Interview 1, January 2021).

The narrative presented highlights the pivotal role played by the small-scale sector in local economies in Ghana. Local residents are interested and more welcoming of small-scale mining operations due to its contributions to local businesses. In both Salman and Akyempim, some respondents spoke highly of the impact of small-scale gold mining on their respective communities compared to large-scale operations. In Salman, two female respondents explained their preference for small-scale mining by recounting its contribution to their livelihood prior to the community's resettlement by stating:

At the old town, the guys were heavily engaged in galamsey [illegal mining] so it attracted a lot of people to the community. As such, the food I prepare to sell didn't take long to finish... I could sell stuff worth 300 Ghana cedis in a day. There were lots of

⁹² Key Informant Interview 1, January 2021.

⁹³ Key Informant Interview 8, February 2021.

people in the community; a lot of people came from elsewhere to work. From the 300 Ghana cedis I made; I was able to contribute 30 Ghana cedis to my susu [daily savings] ... By the end of the month, I was getting about 600 Ghana cedis from my savings. But now that we are living in this community, we are struggling to take care of the children through school. That is why we are forcing that the Assemblyman should lead us to secure an area for community mining (Salman Interview 17, March 2021).

Galamsey has always been our occupation from the past... So, we are pleading that the government should allow us to engage in it like it was done in the past. This is because it attracts lots of people to the community, so businesses thrive. As I was saying, some of the work at the mining company requires educational qualifications, so not everyone can do the work. So, the only other thing that can help the community is to allow us to do our galamsey. Now, you can get arrested for walking through the bush. So, all the hardship is from the lack of jobs in the community (Salman Interview 18, March 2021).

A notable point made by both respondents is the way small-scale mining activities attract a lot of people into the community. The boost to the local economy mentioned by respondents from Salman was equally highlighted by participants in Akyempim. In their case, illegal small-scale mining or galamsey surfaced in an adjoining town (Nsaagyesu), yet the effects of the operations were felt in Akyempim, as some respondents recounted:

Business [drinking spot operator] was good. It wasn't too much, but at least we were getting something. It [business] was far better because galamsey brings a lot of people.... Well, with the mining company, most of the workers are outsiders... from Tarkwa, Obuasi and others. When they are done, they go back but the galamsey guys usually stay in the community and buy from us (Akyempim Interview 8, May 2021).

The galamsey operations was beneficial... The traders benefited from high sales. It brought a lot of people to the community... bought a lot from us. Whenever they have their breaking day and they are going home, it was on Wednesdays; I was selling diapers and soaps at the time. You will get many of them buying them for their trip back home. But all came to an end when the work stopped and they left. In a way, it was good but the deaths made it bad (Akyempim Interview 12, May 2021).

The narrative about small-scale mining attracting lots of migrants to host communities compared to large-scale operations was confirmed during the household surveys across the three communities. As shown in Figure 5.2, Akango, having secured an area for small-scale mining, had a larger share of migrants sampled for the study than Salman and Akyempim.

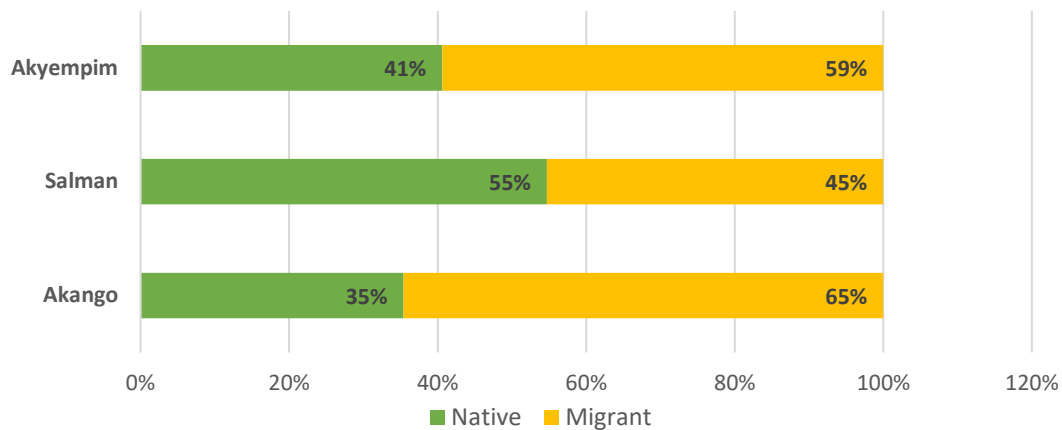


Figure 5.2: Share of native versus migrant in sampled communities

Source: Household Surveys, Fieldwork 2021.

Due to the presence of Golden Star Resources, about 59% of survey respondents at Akyempim were migrants. However, as stated by the respondents, their presence in the community doesn't have a significant impact on local businesses compared to what was experienced during the brief period of small-scale mining activities in the past. The limited linkages of large-scale mining to the local economy can be tied to the practice of drive-in, drive-out (see Keough 2015; Perry & Rowe 2015; Storey 2010), where migrant workers are attracted to host communities by the opportunity to earn higher income and only maintain temporary accommodation in such places while their families permanently live elsewhere. In Salman, it was established that the proportion of migrants in the community had slightly increased in recent times due to small-scale mining activities at Akango, which is less than 15 minutes away by a vehicle. As argued earlier, there is little room for community expansion due to the swampy landscape of Akango. As a result of that, securing accommodation in the community is a challenge due to the high influx of migrants who are engaged in small-scale mining operations. In that regard, a few migrants opted to secure accommodation in Salman while working out of the community and hence barely had an impact on the local economy, as stressed by a female resident.⁹⁴ The majority of the gains from the influx of small-scale mining remained centred at Akango, hence the unwavering interest of local residents of Salman to secure an area of their own.

⁹⁴ Salman Interview 17, March 2021.

The unique cases of Salman and Akango confirm the fact that access to productive resources is often mediated by relations with powerful actors who have legal rights to gold resources. Residents turn to small-scale mining because of the lack of alternatives and the positive contributions of operations on local businesses and the economy as a whole. While small-scale mining offers direct income to the individuals who engage in the extraction of the mineral, it is better received than large-scale industries due to the wider benefits it brings to the community. As stressed by some of the respondents from Akyempim and Salman, the economic contributions experienced in their respective communities during periods of small-scale mining were more beneficial than having the large-scale sector operational.

5.3 Development Contributions of Small-scale Mining at Akango

The local economy of Akango revolves around a thriving small-scale gold mining sector. With about 65% of sampled respondents being migrants, it is difficult to disagree with the chief of Akango when he argued that *‘because of the mining, most of all the Ghanaian tribes are here; people have come from as far as the north.’*⁹⁵ As established in studies by Hilson and Banchirigah (2009), Hilson and Garforth (2013), and Yakovleva (2007), communities like Akango are often populated by migrants from all parts of the country, with small-scale mining serving as the foundation for economic and commercial activity with various forms of linkages.

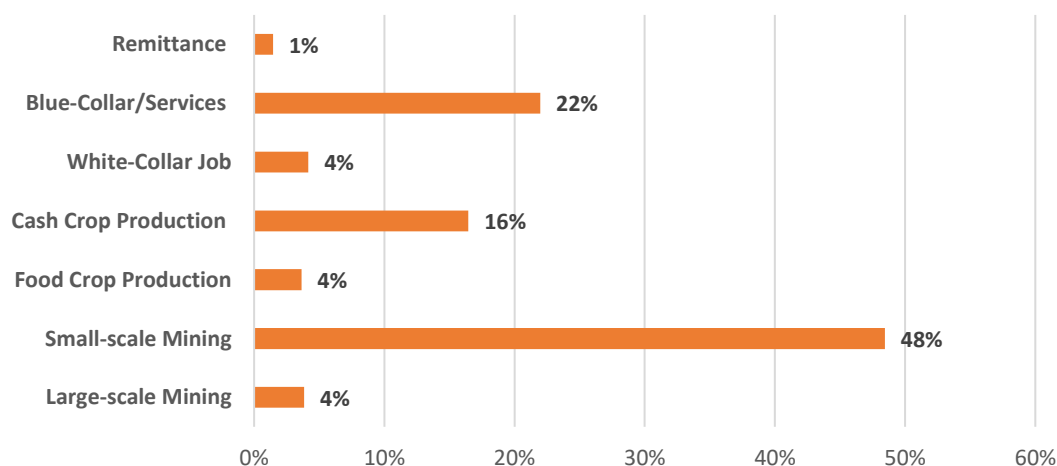


Figure 5.3: Household Income Sources at Akango.
Source: Household Surveys, Fieldwork 2021.

⁹⁵ Key Informant Interview 13, March 2021.

As shown in Figure 5.3, an average of 48% of household income is obtained from small-scale mining operations compared to 4% from the large-scale sector. The low level of household income obtained from food (4%) and cash crop (16%) production also highlight the relevance of small-scale mining to income generation at Akango. At the district level, an estimated 57.8% of the population is engaged in agriculture (see GSS 2014b). In that regard, the low proportion of household income generated from the sector at Akango speaks to issues about the declining interest and profitability of the agricultural industry as locals are encouraged to pursue other financially rewarding forms of livelihood, notably small-scale mining. The seasonality of agriculture, Hilson (2016) argues, is a contributing factor to the increased dependence on small-scale mining to complement farming, especially during the non-harvesting periods of the calendar year. Speaking to the Nzema East District Planner, he argued that the rise in small-scale mining was notable in communities or areas bedevilled with erratic rainfall patterns; hence agricultural lands are converted into small-scale mining sites, often on an illegal basis without a formal license.⁹⁶ The relatively low contribution of agriculture to household income at Akango supports the findings of studies by Hilson and Garforth (2012) and Wilson *et al.* (2015) that people are pushed into the small-scale mining sector due to declining productivity and profitability of food and cash crop production. Interrogating the development contributions of small-scale mining requires a critical assessment of the organization of extractive activities and the extent to which the sector is embedded within the local economy at Akango.

5.3.1 Organization of small-scale mining activities at Akango

In order to evaluate the development contributions of small-scale mining, it is important to analyse the type of operations and the corresponding organizational structure employed at the site. Based on Owusu-Nimo *et al.*'s (2018) classification of the types of small-scale mining or galamsey activities in the Western Region of Ghana, operations at Akango are best described as the underground sample hole/pit or “ghetto” kind, with a small fraction of the population undertaking the stream/river dredging. The underground sample hole or ghetto type of work typically entails the manual digging of pits and the use of dynamite to blast rocks in order to extract gold-rich ores for processing. For individuals directly engaged in small-scale mining at

⁹⁶ Key Informant Interview 17, March 2021.

Akango, it was established that there is a plethora of roles that can be played in the extraction of ore-rich rocks. Explaining the organization of work at the mining site, the Regent of Akango argued:

So, we have the ghetto [underground pit] owner and the sponsor. Then the rest is the workers... We have the chisellers; those who use the hammer and drill to remove the particles. Then we have loco boys; they use the sac to bring out the broken rocks upwards. They also have watchmen who watch over the load upstairs so no one can steal it. We also have a committee setup by Nananom [traditional leaders of the community] to ensure security; make sure that nobody steals. But they always steal. We also have people called alluters. They are illegal miners within the work. For them, they don't play role. They are not sponsors, they are not ghetto owners, they are not workers; nothing. But they can go down the pit through your ghetto. They go and explore a particular ghetto they know the rock contains money and then they will steal it. Even if the workers are there, they will still struggle with them. They say they must also survive (Key Informant Interview 14, March 2021).

The narrative shows the division of labour and the level of organization involved in the extraction of gold-bearing earth materials. Similar to situations where illegal miners encroach on the concession of large-scale mining companies, often resulting in conflict between the two parties (see Hilson 2002a; Okoh 2014), the presence of illicit operators embedded in the small-scale sector is purely motivated by economic factors in the struggle to access and benefit from the natural resource. This brings to fore issues about illicit forms of access to resources predicated on notions of morality and legitimacy (see Ribot & Peluso 2003), as the respondent argued that the illegal miners say they must survive.

The organisational structure of small-scale mining translates into a hierarchical payment system employed by operators. According to Bryceson and Jønsson (2014), the geological uncertainties and expenses associated with mining lead to the adoption of a system of informal shareholding where the principles of risk and profit-sharing form the basis of how proceeds are awarded to the parties involved. While operating based on the principles of risk and profit sharing, the elites, comprising of the equipment owners, pit owners, and sponsors who bear the operational expenses, tend to earn more than labourers (diggers, load bearers, etc.) who carry out most of the work on the ground. Explaining how proceeds are typically shared at Akango, the Regent of the community stated:

For every 10 pieces of sac that they get, the person draining the water will take 3, the person pumping the air will take 1, the one drilling the hole will take 1 making 5. For the remaining, we give 1 to Nananom [traditional leaders]. Then the remaining 4, the ghetto owner will take 2, and the other workers will take 2 (Key Informant Interview 14, March 2021).

Extrapolating from the narrative, the actual workers who undertake most of the work in terms of digging, chiselling and extracting ore-containing materials typically receive about 20% of the mined load as payment to share among themselves. The ghetto owners also receive 20%, while the traditional leaders of Akango are entitled to 10% of the mined load for every pit in the community. Interestingly, the Regent of the community revealed that a person becomes a ghetto owner by virtue of their position in the community; *‘if you are part of Nananom, it is likely that you will get a ghetto.’*⁹⁷ Similar to issues of traditional leaders using their position to secure contracts with large-scale mining companies, as established in the case of Akyempim and Salman in chapter four, it is important to recognize how they also dominate the small-scale sector. Additionally, the sponsor(s) provide the sacs for the work, cover the cost of purchasing or hiring equipment (drilling, pumping air, draining water, etc.), as well as money for subsistence. As a result of the need to recoup their investment, a greater portion of the gold find (about 50%) accrues to the sponsor of the operations.

Speaking to a small-scale miner from Prestea, he argued that sponsors are *‘the ones who benefit the most because they buy all the gold you produce and provides money to cover the cost of operations.’*⁹⁸ In certain instances, the pit owners double as sponsors of the operation. Securing sponsorship is often the responsibility of the pit owners, and access to financial capital is integral to success despite the notion that small-scale mining is labour-intensive. The informal nature of the work serves as a barrier to acquiring formal loans to cover the cost of small-scale mining operations in Ghana. As established by Hilson (2012b) in the case of Talensi-Nabdam in Northern Ghana, the possession of licenses does not facilitate access to financial support from banks and other formal channels because of the risk associated with the sector. As a result, funds are often secured through informal channels –in most cases, gold buyers and political elites (see Banchirigah 2008; Hilson 2012b). Informal sponsorship

⁹⁷ Key Informant Interview 14, March 2021.

⁹⁸ Akango Interview 4, March 2021.

places small-scale miners in a precarious position as they are forced to sell their output at a reduced price in exchange for operational supplies and support (see World Bank 2005). Figure 5.4 shows the hierarchical organizational structure of small-scale mining operations.

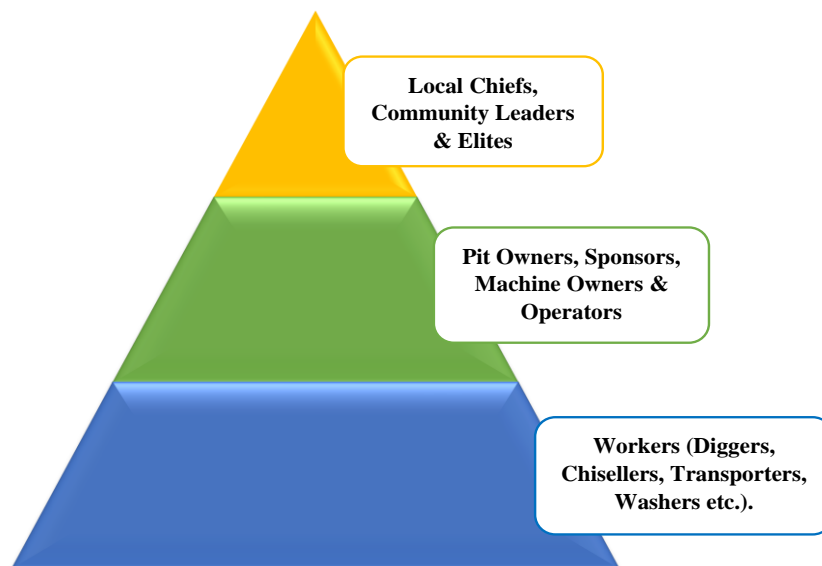


Figure 5.4: Organizational Hierarchy of Small-scale Mining
Source: Author's Construct.

As shown in Figure 5.4, at the apex of the organizational hierarchy are the chiefs, traditional leaders and elites who control land and are able to provide some form of protection (either legally through license acquisition or informally) for small-scale mining activities to be carried out. The highest returns accrue to stakeholders in the top tier of the hierarchy. The local chiefs, community leaders and other elites receive a more significant share of the returns from small-scale mining by virtue of their position and power over activities in the community without any work done. Explaining how community leaders receive a share of extracted gold, a gold buyer at Akango argued

... they have created a committee to oversee or supervise the work... for every load that is extracted, it is divided for the committee to take a share, then the chief will also take his share. As we speak, the committee have over 3000 loads of gold stored in a room (Akango Interview 5, March 2021).

The narrative highlights how community leaders receive a share of extracted gold as 'royalties' from small-scale mining activities. Like the large-scale sector, small-scale mining at Akango is male-dominated. In the middle tier of the hierarchy are the pit owners, machine

operators and sponsors, who act as investors and bear most of the financial risk of the extractive process. An often-overlooked factor is the level of investment needed by small-scale miners, especially since operators are unable to secure funds from formal channels such as banks and micro-credit institutions (Banchirigah 2008). As stressed by Hilson (2012b), the availability of capital is crucial to the improving productivity of small-scale miners since financial resources mediate access to reliable equipment and other factors of production, including wages. In that regard, the principle of risk and profit-sharing employed in the sector is partly informed by the need to ensure that stakeholders in the middle tier are able to recoup their investment based on the level of financial resources spent. The bottom tier is composed of the workers who carry out most of the extractive activities, including the diggers, chisellers, transporters, and washers, among others. The hierarchical organizational structure of small-scale mining translates into class differentiation as the workers at the bottom (the largest group of participants) receive the least amount of income compared to the sponsors, pit owners and machine operators in relative terms. The earnings of workers at the bottom tier are relational to that of other stakeholders based on the principle of risk and profit-sharing hence income varies based on the value of extracted gold.

The participation of women is primarily limited to loading and transporting extracted gold-bearing rocks for processing. Women are not allowed to participate directly in the extraction process. Explaining why women are prohibited from getting directly involved in the extraction, the Regent of Akango stated that:

The women, in actual fact, are not directly involved. It is not a feminine work. And again, the job has some sort of spiritualism which bans women from getting closer to it... There is this superstitious believe that the gold is associated with the lesser gods of which there are certain things they don't want. And most of the time, it is the women who align with those things, especially when the woman is in her menses, she is not supposed to be on the field or at the site. Somebody who is a 3rd born is not supposed to be on the field. If you are a twin born person and they have not performed any ritual, you are not supposed to be there (Key Informant Interview 14, March 2021).

The explanation provided in the narrative is consistent with Amankwah and Anim-Sackey's (2003) argument that the barriers to effective female participation in small-scale mining in Ghana are linked to cultural and social taboos. While some women engage in the processing phase of the operations, the final stage of burning the amalgam (mixture of mercury

and earth particles to extract gold) is mostly done by the men. Speaking with a woman who engages in the loading and transportation of extracted materials at the mining site, it was established she typically made 30 Ghana cedis (approximately US\$ 4.29) for a day's work based at 10 Ghana cedis for 50 pans of load carried depending on the distance.⁹⁹ The low wage level reported by the respondent at Akango was consistent with what was stated by another respondent at Salman and is in line with previous studies – such as Yakovleva (2007) – that emphasize the poor income received by women engaged in the small-scale mining sector compared to men. Despite the inferior amount of income earned by women, the respondent expressed her preference for engaging in that role over farming. As established by Zolnikov (2020), the small-scale mining sector in Ghana serves as a source of economic empowerment for women due to the ability to earn income on a daily basis compared to more traditional subsistence options such as farming. During Yakovleva's (2007) study at Noyem, it was established that other non-farm employment opportunities were not financially rewarding for women compared to earnings from small-scale mining. Despite their limited participation in the extractive process, the women at Akango benefited more from the indirect economic activities generated by the small-scale mining operations.

5.3.2 Linkages between Small-scale Mining & the Local Economy at Akango

Regarding linkages to local economies, Hilson and McQuilken (2014) contend that small-scale mining operations may create as many as six (6) downstream jobs for every individual directly employed in the sector. Debrah and Asante (2019) note a rise in demand for goods and services, such as trading and retailing, food and beverages, and rental accommodation, as the number of income earners increases with small-scale mining. At Akango, the women, in particular, took advantage of the consumptive and backward linkages that emerged in the community due to the mining activities. In terms of backward linkages, there are individuals who have established shops to supply mining inputs such as sacs, nails, touch lights, batteries, fuel, mercury, chisels, pick-axe and various types of tools or equipment used by small-scale miners. Speaking to a young lady employed to sell fuel in bottles and gallons on a table by the street of Akango, she stated that daily sales typically ranged from 700 to 1,200 Ghana cedis (approximately US\$ 100

⁹⁹ Akango Interview 8, March 2021.

to US\$ 170).¹⁰⁰ Variations in sales were tied to the differing levels or intensity of small-scale mining activities in the community.

The consumptive linkages of the mining operations are mostly seen in the sale of food. Not only do women sell food close to the mining site and along the streets at night, but others come from neighbouring communities to work as hawkers, carrying around various items to sell. As a testament to how small-scale mining serves as the foundation of economic activities at Akango, a single mother from northern Ghana who sells sachet water argued that *‘things get better for me only when the work [mining] is thriving.’*¹⁰¹ The respondent stated that she made an average of 13 Ghana cedis a day (less than US \$2) as profit when the mining work was thriving in the community. Earning less than US \$2 a day as the primary source of income is quite low for a single mother with two children considering that the international poverty line is set at \$2.15 a day (World Bank 2022). Besides supporting retailing activities, the small mining operations are a huge source of income for homeowners since the influx of migrants has created a market for rental prices to be increased. According to the Regent of Akango, the accommodation situation in the community has been stretched to the point where you will find 6 to 7 people sharing a room.¹⁰²

The forward linkages to small-scale mining operations offer income-earning opportunities for people engaged in the processing of extracted rocks as well as those involved in the gold-buying business. The gold-buying business at Akango is an economic space for both natives and migrants. Most of the gold buyers in the community operated without a license from the Precious Mineral Marketing Company (PMMC), the state agency in charge of licencing in Ghana. Acting mainly as middlemen to license holders, often located in Tarkwa, the local buyers at Akango purchase gold at relatively lower prices compared to what the miners would obtain from state-registered individuals or business entities. Gold from small-scale miners, Johnson (2020) argues, is usually sold based on weight, using “blade” as the local unit of measurement; ten (10) blades are equivalent to one (1) pound. Explaining how pricing

¹⁰⁰ Akango Interview 7, March 2021.

¹⁰¹ Akango Interview 10, March 2021.

¹⁰² Key Informant Interview 14, March 2021.

works within the community, a buyer at Akango who typically purchases about 60,000 Ghana cedis (approximately US\$ 8,571) worth of gold in a day stated that:

If you go to Tarkwa, the prices are all the same. So currently, the price is 200 Ghana cedis for one blade of gold... I am purchasing them at 190 Ghana cedis to keep knowing that the price was higher than that in the past. I am waiting for the price to go up to the previous rate of about 270.5 Ghana cedis for one blade... if I buy it in the boz state [raw and unrefined gold after burning the amalgam], I will not sell it in that same state. I will refine it [process the gold to the yellow metallic state that is heavy] before going to sell so the money I will obtain will be more... they will not pay 190 Ghana cedis for the refined gold, they will buy it at about 250 or 260 Ghana cedis for one blade... Also, some people calibrate the scale that we use for the work. So, if they are using the calibrated scale, they get more income (Akango Interview 5, March 2021)

From the narrative, local buyers earn more by adding value to the gold purchased in an unrefined state. Refining leads to the production of a yellow metallic state of gold that is heavy. Without refining, it is impossible to establish the level of purity and quantity of gold produced. Yet, the miners typically sell their produce in the unrefined state, limiting their income earnings as highlighted by the difference in pricing from 190 to 250 Ghana cedis per blade based on the narrative. Speaking about how the price volatility on the world market affects their work, two interviewed gold buyers argued:

Yeah, it [frequent price changes] affects us a lot because the miners know that we used to buy it at that price, so when you tell them it has changed, they will not believe you. A lot of the miners have their load locked away because prices are down, so they will wait for it to go up before they sell (Akango Interview 5, March 2021)

We have an app, so when you check it, you will notice that the price is rising or going down... assuming you buy the blade for 250 Ghana cedis and get to Tarkwa to realize that the price has dropped, you have to return without selling the gold... you have to wait till the price goes up. It has happened to me before (Akango Interview 3, March 2021)

According to the narratives presented, the price of gold at a given time influences the decisions of both miners and buyers to sell their merchandise. For the buyers, price drops have an adverse impact on business as miners are not motivated to sell. Discussions about whether it was more profitable to work as a miner or buyer were inconclusive, with the respondents arguing that success in either position depended on luck. Price volatility makes the buying business riskier compared to working as a miner. As mentioned by the respondent, miners tend to hold on to their load when the price is not conducive for them. For buyers, access to capital affects their ability to purchase more gold during a decline in prices as they are forced to hold

onto their merchandise in order to avoid making losses. As argued by the representative from PMMC, gold buyers often cited access to capital as their main challenge.¹⁰³

In terms of processing, extracted rocks are typically sent to a mill where they are crushed before washing, panning and burning of the amalgam after mercury has been applied to the output. Speaking to a mill operator at Akango, it was established that between 80 to 100 sacs or bags of rocks are processed on a daily basis if the work is thriving. However, payment for the work done was dependent on whether gold was recovered from the processed rocks or not. He argued:

With this work we are doing, our profit is the sump (tailings). If they come for the sump, that is when we earn our profit. Besides selling the sump, when people come to process their gold bearing rocks, there are times when you don't obtain any gold from it. In cases like that, the diesel or petrol becomes our cost to bear... how do you expect the miner to pay me? I let them go because I have no option. If things didn't work for you today, tomorrow might be your lucky day. When they bring the load and at least, it is valuable, I charge 7 cedis [US\$ 1] for every sac of load... we keep the sump of the load that has some gold in it; that what you see over there. So that is what we just reprocessed to get some money as you can see (Akango Interview 6, March 2021).

The narrative highlights the challenge faced by mill operators in the small-scale sector. The “trial and error” nature of small-scale mining often leads to situations where the extracted earth material does not contain any gold. Just like the miners, mill operators only earn when the processed material contains gold. It was interesting to establish that mill operators mainly turn a profit from selling their tailings to large-scale operators. Due to the poor efficiency of the use of mercury to extract the gold, tailings are often reprocessed; hence the valuable waste that is kept by mill operators serves as their primary source of income. This is to say that mill operators earn from either reprocessing the tailings by themselves or selling them to large-scale mining companies that are in the business of buying the waste of small-scale miners. However, it is worth noting that they significantly profit off small-scale miners when they sell valuable tailings to large-scale mining companies, earning about 30,000 Ghana cedis (approximately US\$ 4,300) from such transactions, according to the mill operator at Akango.¹⁰⁴ Shedding light

¹⁰³ Key Informant Interview 2, January 2021.

¹⁰⁴ Akango Interview 6, March 2021.

on the practice of large-scale mining companies buying tailings or waste from the small-scale sector, a representative of the EPA explained:

The small-scale miners only extract between 19 and 21% of the gold by the method they use currently. It is the Cyanidation [process used by large-scale companies] that takes all the gold. For now, some of the small-scale miners, especially the hard rock, when they process the gold, whatever is left, what they call the tailings, they keep it for the large-scale companies to buy and add it to their processing plant to extract the gold out of them. This is because if you extract 19 to 21%, what do you do with the 79% left. So they go for it and sometimes, the grade is high so it is good for a large-scale mine... Adamus is doing it. Asanko is the only Ghanaian gold company, it is owned by GNPC, and they also process tailings (Key Informant Interview 4, January 2021).

The explanation provided by the EPA official shows how large-scale mining companies feed off small-scale miners by purchasing valuable tailings or waste, avoiding the need to invest more into gold ore extraction while increasing their output and profits. The explanation also emphasizes the importance of improving the efficiency of gold processing among small-scale miners. With the use of mercury only extracting about 21% of gold, according to the EPA representative¹⁰⁵, small-scale miners earn significantly less than what they could have gained with more efficient methods.

The relationship between small-scale mining and agriculture has been examined within the literature, with scholars like Hilson and Garforth (2012) highlighting the continuous flow of labour and capital between the two sectors over time. In terms of labour, the assembly member of Akango illustrated the impact of small-scale mining on agricultural activities in the community by arguing that

... getting laborers to work on farms is a problem. The person goes into galamsey and makes 100 Ghana cedis in a day. On the farm, you have to weed under the cocoa, spray, harvest and dry it before you can get something... Formerly, when it is getting to Christmas, December, the northerners come and ask for portions to weed for money. Now, they don't. They come for the gold (Key informant Interview 5, January 2021).

The narrative highlights the competition for labour between the two sectors, with small-scale mining edging ahead of farming due to the ability of miners to earn more income over a short timeframe. This is consistent with Osman *et al.* (2022) argument about increased competition for labour due to the growth in small-scale mining operations in Ghana. The

¹⁰⁵ Key Informant Interview 4, January 2021.

assembly member of Tinga also stressed the declining interest in agriculture due to ongoing small-scale mining activities in the community but also revealed how the income from extractive operations was instrumental to the purchase of weedicides and other farm inputs.¹⁰⁶ Hilson (2016) contends that engaging in small-scale mining has enabled some households to fortify agriculture by putting them in a position to acquire more inputs and hire more labour. On the other hand, various studies have emphasized the decline in agricultural productivity as a result of increased engagement in small-scale mining (Danyo & Osei-Bonsu 2016; Sarfo-Mensah *et al.* 2020).

According to the assembly member of Akango, the decline in agricultural activities had affected the food supply in the community as the local market has become increasingly dependent on the produce of farmers from other villages.¹⁰⁷ As argued by Danyo and Osei-Bonso (2016), declining yields in agriculture is a contributing factor to the high cost of living in small-scale mining regions in Ghana as a result of the transition of residents from food producer to buyers. In the Amansie West district of Ghana, Osman *et al.* (2022) established that most landowners were motivated to sell their land for small-scale mining in return for short-term income due to financial problems emanating from unemployment and poor cocoa yield. The sale or allocation of farmlands to small-scale miners contributes to the marginalization of tenant farmers. During their study in the Amansie West District of Ghana, Sarfo-Mensah *et al.* (2020) established that small-scale mining operations had negatively affected food availability by reducing local environmental capacity to support adequate production. Similarly, Osman *et al.* (2022) found a reduction in the output of cocoa since farms easily got flooded during the rainy season as a result of uncovered mining pits, causing the black pods disease, early dripping of immature pods and stunted growth. In essence, the relationship between the small-scale mining and agricultural sector has not always been complementary in terms of the flow of capital between the two activities. Rather, the competition for labour and land has led to instances where extractive operations have been detrimental to farming.

¹⁰⁶ Key Informant Interview 32, July 2021.

¹⁰⁷ Key Informant Interview 13, March 2021.

In essence, this study has revealed the extent to which small-scale mining is essential in local economies by creating opportunities for individuals to directly earn an income or through various linkages with other sectors, including retail and housing. However, the gains in retail and housing tend to be accompanied by a decline in agriculture due to increased competition for land and labour. Consistent with Humphreys *et al.* (2007), small-scale mining facilitated the expansion of the non-tradable sector at the expense of more traditional export sectors at the local level. Do the relatively stronger linkages between small-scale mining and local economies imply better development or poverty outcomes from the extractive activities in host communities? How does small-scale mining contribute to processes of class formation and differentiation in host communities? To answer these questions, the next section provides a critical assessment of the poverty outcomes of small-scale mining.

5.4 Poverty Outcomes of Small-scale Mining in Ghana

The landmark Mining, Minerals and Sustainable Development report on ASM by Hentschel *et al.* (2002) echoed the view that small-scale mining can play a crucial role in poverty alleviation and rural development since the sector offers the most promising, if not the only, income-earning opportunity for most of the people involved. Various scholars such as Hilson and Banchirigah (2009) and Wilson *et al.* (2015) contend that the small-scale mining sector has become a safe haven or means of survival for locals in rural regions. However, the sector is well known as being a major social ‘menace’ due to the high environmental costs as well as poor health and safety records (Hentschel *et al.* 2002; Hilson 2017; Owusu-Nimo *et al.* 2018). Nevertheless, various stakeholders (national governments, international donor agencies and scholars) recognise the close relationship between small-scale mining and poverty (Hentschel *et al.* 2002). Proponents of the ‘poverty-driven’ narrative contend that the sector tends to offer income-earning opportunities to people in areas typically devoid of other employment prospects (Hilson & Garforth 2012; Schwartz *et al.* 2021). In the case of Akango and Salman, interest in small-scale mining was based on the need for survival in a rural area with limited livelihood opportunities despite the presence of large-scale extractive operations. Speaking about the rise of illegal small-scale mining activities at Akango prior to the CMS, a representative from the Minerals Commission argued

... almost all their farmlands have been taken away by Adamus. So, at the point, they were indulged in illegal mining and it was very difficult to control them... I went there and the sheer number of people I found in the community; I couldn't get out of the vehicle. It was scary. (Key Informant Interview 37, August 2021).

Based on the narrative, the growth of small-scale mining at Akango is linked to poverty and marginalization of residents, as the loss of farmlands to Adamus Resources contributed to a rise in illegal extractive activities. The 'poverty-driven' narrative has led to calls for the small-scale mining sector to be at the epicentre of development efforts, notably since the International Roundtable on Informal Mining in 1995 (Barry 1996). As argued by Hentschel *et al.* (2002), there is increasing awareness of the relevance of the sector to poverty alleviation. However, there is a counterargument that small-scale mining does not help people escape 'poverty traps' (Hilson 2012b). A 'poverty trap' is understood as a set of self-reinforcing mechanisms which prevent many individuals from building upon their productive assets, accumulating disposable incomes and/or pursuing alternative, less arduous employment (Carter *et al.* 2007; Hilson 2012b).

The Roundtable drew attention to the fact that increased engagement in the extractive sector is linked with hardship at the household level, and the organization of small-scale mining activities tends to trap many participants in a vicious cycle of poverty (Hilson 2012b; Schwartz *et al.* 2021). According to Hilson (2012b), the poverty trap with small-scale mining is similar to what is prevalent with small farming plots of land or the experiences of petty traders who operate small shops and household enterprises. A critical assessment shows that the nature of operations and the labour processes involved in the extractive sector does not necessarily facilitate the accumulation of sufficient income for a majority of the people engaged in small-scale mining to move beyond subsistence. Sharing their thoughts on the ability of small-scale mining to help alleviate poverty among locals, two miners and the Regent of Akango argued:

If you look at the work we do here, it is not something I should do for long because when I stay in it for long, it will disturb me [health concerns due to nature of work] in the future. For money, yes, it is true. It is very lucrative... it can alleviate poverty in the short run but it is not good for the long-term. It can collapse for months (Akango Interview 1, March 2021).

Just as I mentioned, I want to use it [small-scale mining] to secure capital to open my own business... I want to open my shop and there is no alternative. Because where will I get the capital from? If not that I am doing galamsey to get the capital, there is no other

alternative avenues to explore for the capital. Do you understand?... That's why some people argue that it helps alleviate poverty. For instance, if I get the capital I need, then I can also say that it has helped me move out of poverty because if I have my shop, at least, I can cater for my family ... as we speak, you can go to work for just a day and get billions. But you can also work for an entire month and not get even 1 Ghana cedi. I remember some time ago, we went to do some work and at the end, everyone received 1 cedi each. (Akango Interview 4, March 2021).

It doesn't have any future at all; it is an activity of survival. It is a quick way of getting money. And once you get the money, one has to reinvest it. You get the money and reinvest; that way, it becomes sustainable (Key Informant Interview 14, March 2021).

The use of phrases such as 'doesn't have any future', 'an activity of survival', and 'a quick way of getting money' by some of the respondents highlight the temporality of economic gains associated with small-scale mining. The miner from Prestea¹⁰⁸ got involved in the sector with the hope of securing capital for his welding business. The hope of securing capital to invest in their future is a common objective among a lot of people found within the sector. This is consistent with the notion that the sector is filled with 'fortune seekers' looking to improve their social statuses by securing funds to invest in housing and/or a business (Hilson 2009). Yet, the inconsistent economic returns and uncertainties surrounding the operations of small-scale miners make reliance on the sector difficult, casting a shadow over hopes of poverty alleviation. Despite increasing calls to make small-scale mining the epicentre of development efforts in rural settings (Barry 1996), Hentschel *et al.* (2002) contend that reliance on the sector for poverty reduction and sustainable development depends on the nature of operations and stability of economic activities. An in-depth assessment of the current state of small-scale mining in Ghana shows that the sector may not be significantly advantageous for poverty reduction in the long term, as perceived. Despite its superior linkages with local economies, available evidence from this study shows that small-scale mining tends to create wealth for a limited number of people, contributing to inequalities while reinforcing existing social class relations among residents in mining communities.

As discussed earlier with regard to the organizational structure employed at Akango, the pit owners and sponsors benefit the most from small-scale mining while the regular workers or crew receive a very meagre amount for the work done (see Hilson 2012b). Poverty reduction

¹⁰⁸ Akango Interview 4, March 2021.

from the sector is hindered by the principle of risk and profit sharing that is employed by small-scale miners, where earnings are tied to what is produced. Acting as entrepreneurs or investors, the elites who bear most of the risk of financing operations by covering the expenses (land and license acquisition, daily subsistence of workers, purchasing or hiring of equipment etc.) earn the most. In the case of community or traditional leaders, earnings are received with no investment or work done by virtue of their status. The hierarchical payment structure of small-scale mining operations (see Bryceson & Jønsson 2014) contributes to class formation through patron-client relationships and generates inequalities among participants despite being more inclusive than the large-scale sector. This is to say that while small-scale mining offers opportunities for a relatively larger number of people to earn an income, the inherent class-based or hierarchical payment structure does not contribute to narrowing the gap between the rich and poor. Speaking about how only a small number of people have benefited from the significant growth of the small-scale mining operations at the expense of the masses in host communities, a local government representative in the Ellembelle District argued:

The worse-off ones are in the majority. Of course, it's not like many people have made it and few are struggling. No, few have made it but the repercussions are huge on the larger community... As for those who benefit, it's a long chain. You have political structures that are connected. Politicians are connected. Non-political actors are connected. A lot of people; it's a mixture... The galamsey you used to know was the shovel, pickaxe, wash, get something small and go. They didn't spoil much... until somebody, some people had the authority to bring in heavy equipment, excavators. That is where the political and the business men got involved. They are the people who own a lot of gold but have never gone to the mine site. But they will bring all the equipment; just take it into the forest. So that is where the political elites will come in. Granting them right of way; permission to go into areas that ordinarily, you and I couldn't go or couldn't reach (Key Informant Interview 12, March 2021).

The narrative brings to the fore the argument that the recent growth and transformation of Ghana's small-scale mining sector, following the introduction of excavators and other heavy earth-moving machinery (see Mantey *et al.* 2017; Owusu-Nimo *et al.* 2018), has barely translated into poverty reduction among the majority of individuals located within or associated with operations. The elite capture associated with the growth is not limited to only Ghanaians, as the small-scale mining sector has been infiltrated by foreigners, especially from China. In fact, with China noted as a major destination of illicit minerals from Africa, Bofo *et al.* (2019) argue that an estimated value of \$2.3 billion worth of gold left the shores of Ghana through

illegal channels in 2016. As put forth by Hilson and Maconachie (2020), the influx of ‘foreigners’ into the small-scale economy in Ghana has altered the dynamics of the sector through increased investment and reduced retention or repatriation of export revenues.

Reduced retention or repatriation of export revenues does not bode well for arguments about making small-scale mining the epicentre of development efforts in rural settings (see Barry 1996). The development strength of small-scale mining lies in its stronger linkages to local economies hence reduced retention of revenues will have an adverse effect on other sectors, notably housing and retail, which tend to benefit the most from the extractive activities. As argued by Hentschel *et al.* (2002), sustaining the linkages between small-scale mining and other aspects of the local economy is essential to utilizing the extractive sector as a vehicle for poverty reduction and rural development. Maintaining the integration between small-scale mining and other sectors of local economies long-term is a challenge due to the unstable nature of extractive operations as well as fluctuations in productivity and earnings. In terms of the unstable nature of extractive operations, the small-scale gold mining sector in Ghana has been an arena of great instability as a result of the fact that most operations are carried out without a license. An estimated 70% of small-scale mining operations in Ghana are carried out without a license (Boafo *et al.* 2019). In that regard, state officials have often resorted to the use of military sweeps to discourage or expel illegal small-scale mining operations (Banchirigah 2008; Hilson & Osei 2014). The use of military sweeps to eliminate illegal operations is disadvantageous to individuals living in regions devoid of economic opportunities. Various governments have continued to use the military to regulate the small-scale mining sector in Ghana despite the realization that such deployments hardly yield the right results, according to a representative of the Mineral Commission.¹⁰⁹ The recent deployment of the military to regulate or eliminate illegal activities include Operation Vanguard, launched in mid-2017, and Operation Halt, introduced in 2021 (Albrecht *et al.* 2021).

While Operation Halt was targeted at curtailing the adverse effect of illegal operations on forest reserves and water bodies, Vanguard was launched to enforce a ban imposed on all small-scale mining activities (both legal and illicit) in Ghana between April 2017 and

¹⁰⁹ Key Informant Interview 1, January 2021.

December 2018 (Albrecht *et al.* 2021; Hilson & Maconachie 2020). The ban in 2017 was a radical move to ‘sanitize’ the small-scale mining sector in light of the devastating environmental havoc associated with illegal operations in the country (Adu-Baffour *et al.* 2021; Hilson 2017; Hilson & Maconachie 2020). Besides addressing illegal operations, the ban simultaneously suspended all legal small-scale mining activities and froze the allocation of new licenses (Hilson & Maconachie 2020). With a joint task force composed of 200 military and 200 police personnel (Albrecht *et al.* 2021), Operation Vanguard arrested 1,129 illegal miners and destroyed 7,000 pieces of mining equipment (Pein 2018). Given that the small-scale mining sector directly employs an estimated one million people (McQuilken & Hilson 2016), the ban had drastic impacts not only on local economies but also on vulnerable groups like women and unemployed youth who depended on thriving operations for their livelihood (Kumah *et al.* 2020; Orleans-Boham *et al.* 2020). Not only was the ban and use of the security task force detrimental to poverty alleviation among vulnerable groups in local communities, but the effects were also felt by wealthier entrepreneurs and businessmen involved in the mining industry. Speaking to an executive of the Ghana National Association of Small-Scale Miners (GNASSM) about the ban and use of the military, he argued:

You recently dispatched the military people to go and do a whole lot of harm here and there, targeting people here and there... I lost two excavators during Atta Mills time [President of Ghana from 2009 to 2012]. I lost another two in Akuffo Addo's time [current President since 2017]. If I am to buy each excavator around 125,000 dollars those days, and somebody in my late 40s, I have lost a whooping close to 500,000 dollars. Are you creating millionaires or you are killing millionaires?... Every four years, the dynamics change (Key Informant Interview 36, August 2021).

The narrative highlights the instability faced by operators within the small-scale mining sector as governance is altered with every change in government or institutional leadership. The losses incurred from state attempts to regulate the sector are huge, as shown in the case of the respondent, and is consistent with claims that some small-scale miners are stuck in an economic ‘poverty trap’. The experience of the respondent shows why small-scale miners find it extremely difficult to repay borrowed capital or recoup investments (see Fisher *et al.* 2009; Hilson 2012b). The unstable nature of the small-scale operations due to frequent state interference and interventions to eliminate illegal activity and regulate or formalize the sector has been detrimental to the growth and development of Ghana’s gold mining industry as a

whole. According to Ayelazuno and Mawuko-Yevugah (2019), the interest of the ruling class reigns supreme in the enforcement of extractive laws in Ghana. For instance, the Community Mining Scheme (CMS) was recently introduced to tackle illegal operations while encouraging a cooperative form of small-scale mining aimed at creating jobs and improving livelihoods among local residents (Minerals Commission 2021).

As argued by Hilson *et al.* (2022), the introduction of the CMS is a morale booster for individuals who have long grown frustrated with the bureaucracy that must be navigated and costly payments made in order to secure a small-scale mining license. However, various key informants¹¹⁰ stressed how the scheme was introduced to appease political followers in an election year following the marginalization of many small-scale miners and others who rely on the sector for their livelihood. Shedding light on the political dimensions of the scheme, a representative of the Minerals Commission in the Western Region argued:

... you will see a lot of signposts with community mining that are actually illegal mining activities. Because you know, community mining is some sort of political arrangement so when people say that there is a community mining, it sort of keeps the security agencies away... There are some that was commissioned by the president close to the 2020 elections. But there are others that people found the strategy of putting up the signpost (Key informant Interview 37, August 2021).

The narratives show the politics surrounding the scheme as well as the unintended effect of promoting illegal operations through the use of the signboard (see Figure 5.5 for example). The endemic clientelist politics and patronage networks have fuelled rent-seeking behaviour to fill the pockets of elites whilst impeding Ghana's development (Hilson & Maconachie 2020).

¹¹⁰ Key Informant Interview 23 & 37, March & August 2021.



Figure 5.5: Bónsa Community Mining Signboard.¹¹¹
 Source: Field Work 2021.

As stated by the representative from the Ghana Geological Survey Authority:

The politics attached to small-scale mining sector is a major deterrent driving investors to the other countries. There is no transparency in the licensing process of the country. Political influence is very important to securing the license to mine. You can get your application refused for an area but someone else will be granted the license and there is no explanation for why that happens. Investors need to be connected to someone in the ruling government in order to be successful (Key Informant Interview 40, June 2021).

The narrative presented is consistent with arguments that some operators have the backing of certain powerful state officials (Adu-Baffour *et al.* 2021). Scholars such as Ayelazuno and Mawuko-Yevugah (2019) and Hilson and Maconachie (2020) have shed light on the large-scale mining bias where the state prefers to award most of the valuable areas to Multinational Companies in order to maximize mineral rents generated from the industry.

¹¹¹ The community of Bónsa in the Tarkwa-Nsuaem Municipality was not listed as one of the official areas selected for the scheme (see appendix 1).

According to Hausermann *et al.* (2018), the neglect of the small-scale mining sector and lacklustre formalization efforts by state authorities and relevant stakeholders is tied to the personal interests of elites who find the informal status enabling for land grabbing, corruption, money laundering and other illegal practices. The incentive for various governments to reform the formalization process can be questioned, given that the state benefits from the sale or export of gold produced by small-scale miners despite being largely informal. Furthermore, the informality and general lack of regulation afford local elites, such as chiefs and politicians, the opportunity to extract sizeable rent from operators (Aidoo 2016; Hilson & Maconachie 2020).

Poverty reduction is also hindered by fluctuations in productivity and earnings from small-scale mining, which has a corresponding effect on other sectors of the local economy that are linked to the extractive sector. As stressed by the sachet-water seller at Akango, the petty trading activities in the community are rewarding only when extractive operations are thriving; a change in the fortunes of small-scale miners has a corresponding effect on the retail sector.¹¹² The adverse impact of dwindling extractive activities on other aspects of the local economy was noticeable when the investigation into the missing police rifle and murder of a young man from Bawku (see Kaku 2021) led to a decline in small-scale mining operations at Akango for a brief while. Fluctuations in productivity and earnings from small-scale mining are a function of the unscientific “trial and error” method of ore identification and reliance on the mercury amalgamation technique. Small-scale miners in Ghana, whether legal or illegal operators, seldom rely on any form of geological data when prospecting for areas to mine. During the interview at the Ghana Geological Survey Authority, the respondent argued that there is very little regard for the importance of geological data among the small-scale miners in the gold industry.¹¹³ Ghana’s mining law is silent on the need to acquire geological data as part of the licensing process for small-scale miners. In that regard, licensed small-scale miners rely on their artisanal know-how rather than geological data; hence their operations are prone to periods of low productivity.

Due to the “trial and error” nature of work, small-scale miners typically sample various rock types that are encountered underground in order to identify the valuable ore to extract. It

¹¹² Akango Interview 10, March 2021.

¹¹³ Key Informant Interview 40, June 2021.

was established during interviews at the community level that the economic gains and linkages of small-scale mining to the local economy are strongest when the ‘sample’ is good. Highlighting the importance of geological data to small-scale mining operations, a cocoa farmer at Akango argued:

It gets to a point where they [small-scale miners] say that things are not going well because the sample is not good. But with time, they get to a point when the sample is good enough and that brings happiness... they frequently encounter the bad sample more than the good ones... In this house, there are some guys who are from Kumasi. They recently left and haven't returned since the sample hasn't been great in recent times (Akango Interview 2, March 2021).

The narrative shows why the quality of the sample is crucial to the attractiveness and productivity of small-scale mining operations. It also explains the migratory nature of the sector as miners move onto new regions with a better sample. As argued by Tenkorang and Osei-Kufuor (2013), migration is often related to rural poverty, especially when conditions in a particular area are not favourable for the well-being of people. Sharing his experience working with a group of underground miners and the importance of the sample, a respondent at Salman explained:

... it all depends on the sample. It is in layers, so we kept going deeper. So, when I initially got 1,500 Ghana cedis, I was expecting the second one to be more. But it rather came down. And those who worked the next round got something lower again (Salman Interview 10, March 2021).

During the interview with a painter who had previously engaged in small-scale mining, he explained how he was running a loss due to the sample by stating:

I did the work for almost 2 years. I had my own machine but it got to a point where the work was not rewarding. That was what made me stop... With the galamsey, if you own a machine and are not fortunate to get a place where the sample is good, the workers will earn more than yourself. This is because the worker will always take their pay at the end of the week no matter what. So if you are paying each worker 300 Ghana cedis, you have 6 of them and the sample is not good, you the owner will keep making losses. You will have to use your savings to pay off the workers (Salman Interview 14, March 2021)

The painter’s experience of making losses is consistent with studies that contend that small-scale miners are trapped in a vicious cycle of poverty due to low productivity hence their indebtedness to sponsors and others (see Hilson 2012b; Wilson *et al.* 2015). Improving the

kind of sample that is extracted will require a turn to the use of geological data in the small-scale mining sector. While the use of heavy earth-moving machinery has improved the quantity of gold produced by small-scale miners in Ghana from 7.4% in 1995 to 43% in 2018 (Botchwey *et al.* 2018; Adu-Baffour *et al.* 2021), the adoption of geological data will be key to improving the quality of the mineral produced from the sector. At the moment, prospecting for gold is mostly carried out by large-scale mining companies, and the government has been very passive about generating the geological data on its own towards informing licensing decisions about the small-scale sector (see Hilson 2017). The passive attitude of the state can be attributed to the large-scale mining bias towards awarding valuable areas to multinational companies in order to maximize mineral rents generated from the industry (see Ayelazuno & Mawuko-Yevugah 2019; Hilson & Maconachie 2020).

Besides the issue of poor quality of extracted materials, the earnings from small-scale mining are considerably low due to the poor recovery rate of mercury amalgamation. To Hilson and Pardie (2006), mercury is an ‘agent of poverty’ among small-scale miners in Ghana. Small-scale miners, regardless of the quality of ore (sample), earn considerably less because mercury has a lower recovery rate compared to other techniques, such as cyanidation and direct smelting technologies. Cyanide is faster and more effective at extracting gold than mercury amalgamation (Esdaile & Chalker 2018). Yet, Ghana’s mining laws prohibit small-scale miners from using cyanide because it is a hazardous chemical that requires careful handling compared to mercury. Due to the highly toxic state of cyanide, training is critical for safe and secure use in order to mitigate its risk to the miners and the environment (Esdaile & Chalker 2018; Tschakert & Singha 2007). According to the Mining Director of the EPA, Ghana has not passed a law for small-scale miners to use cyanide because of their carelessness.¹¹⁴ Additionally, the use of mercury is the favoured amalgamation technique among operators because it is easy to use, very accessible and easy to transport, as well as cheaper compared to other methods (Mantey *et al.* 2020; Telmer and Veiga 2009). However, the poor recovery rate of mercury serves as a barrier to poverty reduction among miners through access to adequate income. During their comparative study in Uganda, Stofferson *et al.* (2019) established that

¹¹⁴ Key Informant Interview 4, January 2021.

the mercury-free technique recovered 40% more gold than the traditional amalgamation method used by small-scale miners.

Speaking in support of mercury-free mining, the interview respondent from the Ghana National Association of Small-Scale Miners (GNASSM) argued that the quality of gold produced from such techniques is superior compared to what was obtained from the traditional amalgamation method used over the year.¹¹⁵ In essence, small-scale miners stand a chance of improving their earnings by adopting mercury-free techniques of gold extraction. While the need to adopt mercury-free techniques is essential to improving earnings, moving away from their traditional amalgamation method is critical to addressing the environmental concerns associated with the small-scale mining sector. The government of Ghana took a massive step toward addressing the problem of mercury pollution emanating from the small-scale mining section when the nation ratified the Minamata Convention on Mercury on 23rd March 2017 (see Kippenberg 2017). Explaining the implications of Ghana signing the Minamata Convention on Mercury, the representative of the EPA argued:

... in the Minamata Convention, there is an article saying that if you have artisanal mining and you use mercury, it is illegal and therefore you need to have a national action plan on how to eradicate the use of mercury going forward. So, in Ghana, we are working towards 2025. By 2025, not only small-scale miners will not have mercury but the use of mercury thermometers, mercury stethoscopes that are used by the hospitals, blood pressure machines and all that... So, with the Minamata convention, Ghana have submitted our action plan to the United Nations and we are working to move from the use of mercury (Key Informant Interview 4, January 2021).

Eradicating the use of mercury from the small-scale mining industry will be a challenge, given the nation's struggles to regulate or address illegal operations. Shedding light on the low adoption rate of mercury-free technologies among small-scale miners, a Mining Consultant with the Coordinating Unit of the Ghana Land Restoration and Small-Scale Mining Project (GLRSSM) argued:

The problem with the small-scale miners is that they want 100% recovery, which is not done. So whatever technology you bring will not give you 100%... the reason why they still go to the mercury is that there is something they call 'kolikoli'. What happens is that after they recover the gold, they reprocess it. Yes, you can't get 100% at a go with the

¹¹⁵ Key informant interview 36, August 2021.

mercury... So it's out of that greed; maybe that's a harsh word. But it's out of that greed that they still use the mercury. Because we have tried so many technologies, the retort and all those things but they say that it doesn't give them maximum recovery... The 'Sika Bokyia' [a mercury-free technology] is relatively a smaller kind of equipment. You need time and these guys are quick. They want things done quick... With mercury, someone can process the gold at the back of his house. And it is so convenient for them... anything you try to introduce needs to tackle both the end product as well as the convenience they are going for. The convenience is very important (Key Informant Interview 30, April 2021).

The argument raised by the respondent about the convenience mercury provides highlights the challenge of introducing and ensuring the adoption of new technologies. The poor recovery rate of mercury has developed the culture of reprocessing tailings, serving as an income generation activity for some individuals and large-scale companies. As established during the interview with the representative of the EPA, some large-scale mining companies in Ghana (Adamus Resources and Asanko Gold)¹¹⁶ have taken advantage of the inadequacies of mercury by going into the business of purchasing waste or tailings from small-scale miners to reprocess for gold. The mobile, nomadic nature of small-scale mining operations in Ghana makes portability and convenience crucial to ensuring the adoption of new processing technologies. As argued by Esdaile and Chalker (2018), it is critical that new technologies or techniques are low-cost and adaptable to the remote and under-resourced areas where small-scale miners mostly operate. Fundamentally, poverty alleviation from small-scale mining is adversely affected by the low earnings from the continued reliance on the mercury amalgamation technique. Therefore, the idea of utilizing the sector as a vehicle for development and poverty reduction is not feasible without significant reforms to the nature of work and the labour processes involved. As stressed by Schwartz *et al.* (2021), the current status quo of small-scale mining creates wealth and prosperity for a few individuals who are typically neither the miners themselves nor the local residents of communities where the mineral is mined. Rather, the lucrative rewards tend to benefit elites within the community, the government or the military.

¹¹⁶ Key Informant Interview 4, January 2021.

5.5 Conclusion

The small-scale gold mining sector can be instrumental to poverty alleviation due to the low barriers to entry for locals, therefore becoming a significant source of income for many people. The sector does not only provide income for individuals directly involved in the extraction of the resource, but the economic gains percolate into other aspects of the local economy. Based on the case of Akango, a thriving small-scale mining sector promotes the growth of other sectors of the local economy, such as retail and housing. However, such gains in retail and housing are often accompanied by a decline in agriculture through increased competition for land. Such effect of small-scale mining on the local economy empirically supports Humphreys *et al.*'s (2007) argument that resource extraction often leads to the growth of non-tradable sectors at the expense of more traditional export sectors.

The relationship between small-scale mining and poverty has been debated within the literature, with national governments, international donor agencies and scholars holding varying positions. The growing interest in the small-scale mining is noted to be 'poverty-driven' as the extractive sector offers an opportunity for people to earn an income in areas with limited economic prospects (see Hilson & Garforth 2012; Schwartz *et al.* 2021). The unwavering interest of residents of Salman in small-scale mining and the prevalence of the sector at Akango are consistent with arguments that the extractive sector is linked to poverty and marginalization in rural regions. The other side of the debate is built on the argument that small-scale mining does not help a significant number of participants to escape 'poverty traps' (Hilson 2012b; Schwartz *et al.* 2021). It is argued that the extractive sector does not facilitate the accumulation of sufficient income for a majority of the people involved in small-scale mining to move beyond subsistence. As argued by Schwartz *et al.* (2021), extractive activities in the sector create wealth for a few individuals (mostly local elites and traditional leaders) at the expense of actual miners and local residents in the community.

A critical assessment of the labour processes and nature of small-scale mining operations shows that reliance on the extractive sector to alleviate poverty and rural development can be problematic. The principle of risk and profit-sharing employed by operators in the sector means that earnings vary significantly for small-scale miners based on the quality of extracted materials. The hierarchical payment system used in the sector results

in a situation where the most lucrative rewards accrue to sponsors and other elites who provide some kind of support to extractive operations. While small-scale mining offers opportunities for a relatively larger number of people to earn an income, the inherent class-based or hierarchical payment structure does not contribute to narrowing the gap between the rich and poor but rather increases social inequalities. Furthermore, poverty reduction is hindered by fluctuations in productivity and earnings from small-scale mining, which has a corresponding effect on other sectors of the local economy. The fluctuations in productivity and earnings from small-scale mining are a function of the unscientific “trial and error” method of ore identification and reliance on the mercury amalgamation technique. The poor quality of the ore extracted due to the lack of geological data, coupled with the inferior recovery rate of the mercury amalgamation technique, affects the economic sustainability of small-scale mining and complicates the reliance on the sector for poverty reduction and rural development. In essence, this study highlights the need to be critical of claims about the development strengths of small-scale mining since the nature of operations (payment system and methods) and unstable governance approach complicates reliance on the sector for poverty reduction.

Chapter Six

Summative Reflection: Poverty Impacts of Extractive Industries

6.1 Introduction

This study has reviewed the linkages between extractive industries and development in Ghana by examining the impacts of gold mining on poverty outcomes through in-depth case studies of different host communities. Previous analysis of the paradox between natural resource endowment and development has mostly been focused on the oil industry (see Kopyński *et al.* 2013; Okpanachi and Andrews 2012; Ross 2012; 2015). Therefore, this study sought to fill the literature gap by empirically reviewing the linkages between gold mining and poverty. By operationalizing poverty to encompass the lack of adequate and sustainable access to income and resources to meet the basic needs of people, the study examined the impact of both large and small-scale sectors of gold mining on the livelihoods of local residents in host communities. The study also examined how revenues from gold mining have been used to meet the development needs of host communities as well as evaluate the role played by extractives companies in the provision of social infrastructure in host communities. Furthermore, the study discussed how each sector (large and small-scale) contributes to poverty production and reduction. This concluding chapter reflects on the main findings and discusses the lessons learnt from the empirical review of the linkages between gold mining and poverty.

6.2 Poverty Outcomes of Gold Mining

Previous studies on the development outcomes of gold exploitation have often concluded that the impact of the industry is one-dimensional (either positive or negative), with Deaton and Niman (2012) and Pegg (2006) providing evidence of the poor record of poverty alleviation in resource-rich economies while Labonne (2002) argued that “mining broadly contributes to poverty reduction” (p. 69). Therefore, there is no consensus in the literature about the directionality of development outcomes from gold mining. This study, however, revealed that the large and small-scale sectors of the gold mining industry in Ghana have the double-edged effect of reducing and exacerbating poverty at the same time, similar to the relational co-production of development and underdevelopment (see Peet & Hartwick 2009; Potter *et al.* 2018). The double-edged effect of poverty exacerbation and reduction from gold mining are

opposite sides of the same coin. Analysis of the contribution of both sectors of the industry revealed how gold mining operations help alleviate poverty through mechanisms such as employment of some individuals, as well as create poverty by displacing local populations and livelihoods (see table 6.1 for summary).

	<i>Poverty Creation or Exacerbation</i>	<i>Poverty Reduction</i>
<i>Large-scale mining</i>	Marginalization from land dispossession and resettlement	Formal employment and regular income with some form of job security for a selected group of people
	Decline in income following displacement of livelihoods	Improve access to basic needs through the provision of Social Infrastructure
	Limited linkages to local economy due to economic enclave	Improve income from the promotion of Alternative Livelihood Programmes
	Marginalization of women due to the dominance of men in the industry	Acquire investment income from payment of compensation
<i>Small-scale mining</i>	Uncertain incomes due to inefficiencies in gold ore identification	Opportunities for local businesses to grow due to linkages to local economy
	Livelihood insecurity due to illegal status & frequent disruptions from security forces	More inclusive to all social groups due to ease of entry
	Decline in agricultural productivity due to competition for land and labour	Source of income during the off-farming season

Table 6.1: Double-edged impact of Large and Small-scale Mining sector on Poverty.
Source: Author's Construct.

As shown in Table 6.1, poverty is created or exacerbated by large-scale mining through the marginalization of local residents following land dispossession and resettlement, as well as the displacement of livelihoods. Furthermore, the linkages of large-scale mining industries to the local economy are very limited; hence small businesses seldom benefit from extractive activities. However, poverty is reduced among the few who are fortunate to secure employment in large-scale mining industries. The poverty-reducing impact of small-scale mining emanates from its superior linkages in local economies while offering income-earning opportunities to a lot of people in host communities due to the low barriers to entry without the need for special skills. On the other hand, small-scale mining may contribute to poverty production by adversely impacting agricultural productivity through increased competition for land and

labour. Based on the cases of Akyempim, Salman and Akango in the Western region of Ghana, the following sub-sections provide a summary of the key findings from reviewing the impact of large and small-scale mining on livelihoods and poverty among locals in host communities.

6.2.1 Outcomes of Large-scale Mining

The analysis of the impact of large-scale gold mining operations on local residents in Akyempim and Salman revealed how poverty was produced through land dispossession and displacement following the acquisition of concessions in the respective communities. Local residents in both communities expressed their frustration with the unemployment situation and the limited opportunities to work with their respective mining companies. However, there were considerable variations in the employment situation between the two communities due to differences in the management or corporate culture of Adamus Resources and Golden Star Resources. Respondents in Akyempim were more grateful for the fact that Golden Star Resources showed greater commitment to employing locals and addressing their development challenges after signing the MOU. In the case of Salman, not only were local residents struggling to get employed by the mining company, but they also had most of their infrastructural development needs unmet following the resettlement of the community.

Variations in corporate culture and priorities of mining companies can be tied to factors such as ownership or managerial changes, as well as the profitability of operations, evident in the case of Adamus Resources and the Salman community. Indeed, the 2011 merger with Endeavour Mining was expected to provide capital to service accumulated debt on the Nzema project of Adamus Resources (see Topf 2011). Furthermore, Adamus Resources was reluctant to train or equip local residents in Salman with valuable skills that would improve their chances of securing jobs with the company. On the other hand, while Golden Star Resources had introduced training programmes to help local residents secure jobs within the mining company, the capital-intensive nature of their operations limited the number of opportunities available. In that regard, poverty was produced and exacerbated among a fraction of displaced local residents excluded from extractive activities within the community. Hence, the main beneficiaries of large-scale gold mining were the local chiefs, community leaders, and elites in host communities.

The study highlighted the advantageous position of local chiefs and community leaders who mediate access to mineral-rich lands. Traditional authorities not only received royalties from extractive activities but also influenced the inclusion of local residents in the extractive activities of large-scale mining companies. The local content policies in both Akyempim and Salman ensured that it was almost impossible to secure employment with large-scale companies without the assistance of traditional authorities. Therefore, it was revealed that local authorities often sold employment opportunities to individuals willing to pay, especially migrant workers. Such corrupt practices contributed to the exclusion of some local residents from the extractive activities of large-scale companies. Additionally, the capital-intensive mode of operations generated exclusions since only the educated elites were able to meet the employment requirements of large-scale mining companies. Therefore, while the acquisition of large-scale mining concessions led to the displacement of large populations, the mode of operations limited their inclusion in extractive activities and reinforced existing class relations within host communities.

Besides the exclusion of a significant number of local residents from the extractive activities, the study also revealed the limitations in measures that are implemented to mitigate the adverse effects of large-scale mining in Ghana. Large-scale mining companies have often resorted to the implementation of alternative livelihood programmes and the provision of basic infrastructure to mitigate the adverse effects of extractive operations, as well as meet the development needs of host communities. However, the study revealed how local residents of the host communities were dissatisfied with the level of infrastructure development provided by mining companies. Various respondents stressed the hardship faced from unemployment and the strained livelihood situation among local residents, arguing that access to better educational and health facilities in the community was not possible without regular income.

In terms of alternative livelihood projects, analysis of the cases of Salman and Akyempim revealed how poor planning and lack of local buy-in, poor commitment from mining companies, and the preference for employment with extractive companies impede the success of implemented programmes. Since extractive activities mostly occurred in remote rural regions with limited livelihood opportunities and often resulted in the dispossession of huge tracts of land, there was a sense of entitlement among various local residents in host

communities that securing jobs with mining companies was their ‘birthright’. In essence, the case studies of Salman and Akyempim revealed the double-edged effect of poverty production and reduction from large-scale gold mining. In both cases, the presence of large-scale companies contributed to developed interest in small-scale mining among a section of the local population, especially in Salman.

6.2.2 Outcomes of Small-scale Mining

Compared to the large-scale sector, interest in small-scale gold mining in rural Ghana stems from its ability to provide income for individuals directly involved in the extraction of the resource as well as the economic gains which percolate into other aspects of the local economy. As argued by Wilson *et al.* (2015), increased interest in the small-scale sector is not only because gold mining is often more remunerative than farming but also due to the lack of other livelihood alternatives compared to the urban areas. The Akango case study revealed how a thriving small-scale mining sector promotes the growth of other sectors of the local economy, such as retail and housing. However, the gains in retail and housing were accompanied by a decline in agriculture due to increased competition for land. Consistent with Humphreys *et al.* (2007), small-scale mining facilitated the expansion of the non-tradable sector at the expense of more traditional export sectors. In relation to the decline in agriculture, it is revealed that tenant farmers are dominant losers from small-scale mining, especially when landowners and traditional authorities elect to sell gold-rich lands to prospective miners, depriving them of their long-term livelihoods. This is to say that while the expansion of the non-tradable sector may help reduce poverty among some individuals, the decline in agriculture also makes small-scale mining productive of poverty among affected farmers and their dependents.

In terms of the direct impact of small-scale mining, it is revealed that the labour-intensive mode of operations enabled the inclusion of a significant number of people compared to the large-scale sector. At Akango, small-scale mining accounted for an estimated 48% of household income among the sampled respondents for the study. However, an in-depth assessment of the labour processes and nature of small-scale mining operations shows that reliance on the extractive sector to alleviate poverty and rural development can be problematic. The principle of risk and profit-sharing employed by operators in the sector means that earnings vary significantly for small-scale miners based on the quality of extracted materials. The

hierarchical payment system used in the sector results in a situation where the most lucrative rewards accrue to sponsors and other elites who provide some kind of support to extractive operations. While small-scale mining offers opportunities for a relatively larger number of people to earn an income, the inherent class-based or hierarchical payment structure does not contribute to narrowing the gap between the rich and poor but rather increases social inequalities. Furthermore, poverty reduction is hindered by fluctuations in productivity and earnings from small-scale mining, which has a corresponding effect on other sectors of the local economy.

The fluctuations in productivity and earnings from small-scale mining are a function of the unscientific “trial and error” method of ore identification and reliance on the mercury amalgamation technique. The sole reliance on artisanal know-how rather than geological data during the prospecting phase makes small-scale miners prone to periods of low productivity. Additionally, the use of mercury in the amalgamation process contributes to the low-income earnings from small-scale mining due to the poor recovery rate of the chemical. In their comparative study, Stofferson *et al.* (2019) established that the mercury-free technique recovered 40% more gold than the traditional amalgamation method used by small-scale miners. Yet, the use of mercury is still the favoured amalgamation technique among small-scale miners because it is easy to use, very accessible and easy to transport, as well as cheaper compared to other mercury-free technologies (Mantey *et al.* 2020; Telmer and Veiga 2009).

Besides the uncertainties surrounding income from small-scale mining, a review of the organizational structure revealed how the extractive activities in the sector reinforce existing social class relations as most of the benefits accrue to the elites in host communities. Similar to the large-scale sector, the traditional leaders and elites in host communities are the dominant winners by securing or exercising some form of control over extractive activities, often in the capacity of pit owners, equipment owners and sponsors. Since small-scale miners employ the principle of risk and profit sharing, the earnings of regular workers are tied to what is produced. However, the elites who bear most of the financial risk in financing operations earned the most. In the case of community or traditional leaders, earnings were received with no investment or work done by virtue of their status. To that effect, the payment structure embedded in the labour

processes of small-scale mining limits the poverty reduction impact for the majority of the people located at the bottom tier of the hierarchy.

By analysing the poverty impact of large and small-scale sectors of the gold mining industry of Ghana, this study concludes that, in general, some people have benefited a lot more from extractive activities than others in host communities. There are similarities in the poverty outcomes of large and small-scale mining, as evident in the dominant winners and losers of extractive activities. Both sectors reinforce existing social class relations within host communities. Based on the case studies examined, the primary beneficiaries of gold mining are the local chiefs, community leaders, and elites (the richest, most powerful, best-educated, or best-trained group in society) in host communities (see Figure 6.1). Beyond host communities, political elites at the regional and national levels are also dominant stakeholders who benefit from gold mining operations in Ghana. The Ghanaian state wins from small-scale mining through the payment of taxes on exported gold from the sector.

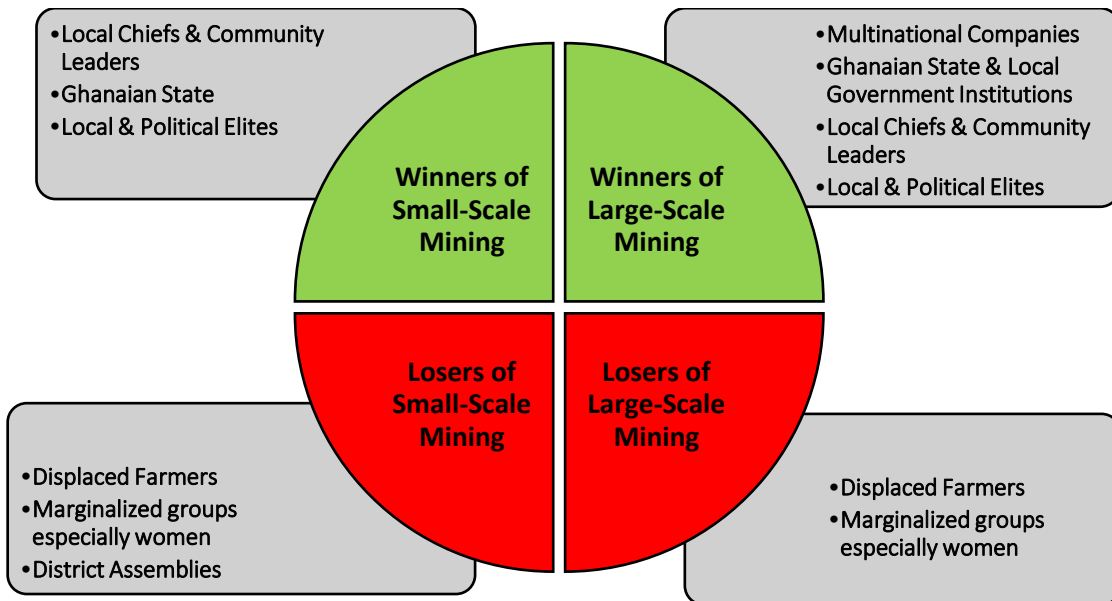


Figure 6.1: Dominant Winners and Losers of Large and Small-Scale Mining
Source: Author’s Construct.

As a result of the integral role played by local chiefs and community leaders in the gold mining industry in relation to access to mineral-rich lands, elites or individuals with significant ties to traditional authorities within host communities are dominant winners. Not only are the

elites able to secure employment with large-scale companies with the assistance of traditional authorities, but they are also able to benefit from small-scale mining by securing or exercising some form of ownership over gold-rich lands, often in the capacity of pit owners as established at Akango. Local elites are often wealthier and/or highly educated than the non-elites of society, hence are able to either sponsor small-scale mining operations or meet the employment requirements of large-scale mining companies.

The dominant losers from the activities of both large and small-scale mining tend to be displaced farmers and marginalized groups, especially women. While there are some variations in the extent of land dispossession caused by both sectors, the impact of gold mining is more severe on local farmers than other social groups due to its direct impact on their livelihood. Land displacement from large-scale mining tends to be more extensive in scale and is forced as the allocation of concessions by the government often leaves farmers handicapped. Analysis of the impact of large-scale mining in chapter four revealed how the land tenure system and the share-cropping farming system negatively affected the amount of compensation received by displaced farmers. Respondents in both Akyempim and Salman stressed how tenant farmers had to share their compensation with landowners and local authorities who are custodians of the land. Likewise, tenant farmers are dominant losers from small-scale mining, especially when landowners and traditional authorities elect to sell gold-rich lands to prospective miners, depriving them of their long-term livelihoods. Highlighting the plight of tenant farmers in the Amansie West district of Ghana, Osman *et al.* (2022) established that most landowners were motivated to sell their land for small-scale mining in return for short-term income due to financial problems emanating from unemployment and poor cocoa yield.

Besides displaced farmers, another dominant loser of both large and small-scale mining is women in host communities. The marginalization of women from gold extractive activities is partly due to customary or traditional practices. Although gold mining may be a male-dominant livelihood activity, customary practices prevent women from actively participating in small-scale mining; therefore, they are limited to participating in the processing phase of the operations. As argued by Amankwah and Anim-Sackey (2003), cultural and social taboos serve as a significant barrier to effective female participation in small-scale mining in Ghana. Furthermore, a contributing factor to the marginalization of women stems from unequal power

relations along gender lines, which are deeply embedded in the customary land tenure system. According to Sarpong (2006), men typically have primary rights of inheritance, while women have user rights mediated through their relationship with men. Unequal gender relationships were exemplified when a woman in Akango argued that compensation from Adamus Resources for the land she could have used for farming went to her father and family leaders, of which she did not receive a penny.¹¹⁷ Therefore, women are dominant losers of gold mining due to pre-existing socio-cultural practices.

Beyond the host community level, the Ghanaian state and the wider population benefit from both large and small-scale mining operations through revenue generation from the payment of various taxes and mineral royalties. At the local government level, the presence of large-scale mining companies provides an additional source of revenue to district and municipal assemblies in mining regions compared to non-mining areas, as highlighted in chapter four. District assemblies with large-scale mining companies are able to complete most of their development projects due to access to mineral royalties. At the same time, local government institutions are dominant losers from gold mining as a result of the environmental cost associated with extractive activities. The “trial and error” system of small-scale mining was a major source of environmental degradation in Ghana, as several pits and trenches were dug in the process of prospecting for ore bodies. In addition to a decline in agriculture due to the increased use of farmlands for small-scale mining, the lack of reclamation after extractive activities had been completed rendered most of the gold-mined areas unsuitable for farming. The activities of small-scale miners significantly contribute to the pollution of water bodies in Ghana, often taking the form of highly suspended solids and mercury contamination (Attua *et al.* 2014; Bansah *et al.* 2018; Kusimi *et al.* 2014). The environmental cost of small-scale mining is a major development issue for local government bodies. Tracing the winners and losers of gold mining highlights how the large and small-scale sectors, while different in terms of mode of operation, are quite similar in terms of their impact on local populations. While the extractive governance policies have been framed to promote the large-scale sector, interest in small-scale mining has accompanied increased foreign investment. Both sectors reinforce existing class relations, with the elites in society being the main beneficiaries of gold mining in Ghana.

¹¹⁷ Akango Interview 8, March 2021.

Ayelazuno and Mawuko-Yevugah (2019) argue that extractive governance in Ghana is highly politicized and imbricated in power structures and relations.

At the national level, gold extraction may be implicated in improved development in Ghana as the period of the commodity boom in the early 2000s and the increased government revenue from mining coincided with a reduced incidence of poverty in the country (see GSS 2018). Despite the reduced incidence of poverty, the development disparities between regions, different socioeconomic groups, and rural and urban areas persist in Ghana. Although poverty decreased from 31.9% in 2006 to 23.4% in 2017, there was an increase in inequality with the Gini coefficient from 41.9% to 43.0% in the corresponding years (GSS 2018). This study has revealed how extractive activities have generated inequalities by reinforcing existing class relations, as gold mining mostly occurs in remote rural parts of the country. Indeed, while rural inequalities increased from 37.8 % to 41.8% between 2006 and 2017, the Gini coefficient for urban regions decreased from 38.3% to 37.9% over the same timeframe (GSS 2018). Gold is the highest foreign exchange-earning commodity in Ghana (van Huellen & Asante-Poku 2021). But the nation has not been able to translate the wealth generated into inclusive development, as political elites are often incentivized to allocate mineral resources or skew public spending to improve their chances of political survival in the short term due to the prevailing competitive clientelist political system in Ghana (Bebbington *et al.* 2018). In essence, this study has revealed that the exploitation of gold in Ghana has the double effect of producing and reducing poverty while generating inequalities, as only a limited number of people have benefited a lot more from extractive activities than others. To that end, this study has revealed the structural challenges or impediments to Ghana harnessing the strengths of the gold mining industry to meet SDGs 1 (end poverty) and 10 (reduced inequalities) (UN 2015).

6.3 Contributions of the Study

By interrogating the poverty outcomes of gold mining in Ghana, this study contributes to development literature by revealing the limited contribution of the extractive industries to the achievement of the SDGs. By generating new forms of inequality, this study has demonstrated how gold mining undermines the overarching goal of the SDGs: No one should be left behind (see UN 2015). This study contributes to development literature by revealing how gold mining simultaneously contributes to poverty exacerbation and reduction among different social

groups. A review of the structure of extractive governance reveals how the Ghanaian state, with the support of international actors such as the World Bank and the IMF, promoted the expansion of large-scale mining by multinational companies. The governance framework for the gold mining industry in Ghana and throughout the African continent has been significantly influenced by the liberalized reforms enshrined in the World Bank's *A Strategy for African Mining* which created a platform for large-scale multinational companies to flourish while offering a steady stream of income to governments. The review of the development outcomes of large-scale mining at the community level has revealed that there are very few signs of the transformative effect of the extractive sector towards poverty reduction. Nevertheless, the confidence that large-scale mining can become advantageous to development remains high among policymakers hence the sustained state bias toward the sector (Hilson 2019).

Attempts to improve the development contribution of large-scale mining through the adoption of local content policies have been underwhelming. As argued by Esteves *et al.* (2013), the growing popularity of local content policies has been aimed at ensuring that locals in host communities are given greater access to economic opportunities associated with the extractive industries, including employment. However, this study contributes to development literature by highlighting the need to be critical of the argument that local content policies can address the enclave status of large-scale mining by stimulating the use of personnel, goods, and services within the domestic economy. Despite the implementation of the MOU in Akyempim, the development contributions of large-scale mining were not significantly better than in the case of Salman. The case studies show that linkages between large-scale mining industries and local economies remain poor with or without the adoption of local content policies, as the capital-intensive nature of operations remains a significant impediment to improving the development contributions of the extractive sector. Further studies are needed to deepen understanding of the relevance of local content policies to address the enclave nature and improve the development contributions of large-scale mining.

As established from the study, the failure of large-scale companies to meet the needs and demands of stakeholders, particularly the employment expectations of residents in host communities, has contributed to the expansion of small-scale mining. Increased acquisition of large-scale mining concessions resulted in the privatization, territorialization and

foreignization of land previously owned by local populations (Peluso & Lund 2011). As argued by Hilson (2002a), increased foreign investment in the industry was accompanied by patterns of intensified land use conflict between illegal small-scale miners and large-scale companies over mineral-rich lands. Existing debates about the growth of small-scale mining have evolved from the 'get rich' narrative to the explanation that the extractive sector is a safe haven for the poor to secure income in areas with limited economic prospects. The labour-intensive mode of operations and superior linkages to local economies has led to increasing recognition of the importance of small-scale mining to poverty reduction and rural development. While not discounting or downgrading the value of the 'get-rich' and 'poverty-driven' narratives about the expansion and relevance of the sector, this study highlights the need to extend the debate to assess the extent to which small-scale mining is beneficial or detrimental to poverty alleviation and rural development. It is argued that the nature of operations and labour processes employed in the sector facilitates the exploitation of the masses in favour of surplus accumulation for the powerful elites. The fact that small-scale mining offers an income-generating opportunity to the masses does not mean that extractive operations are advantageous to poverty reduction since the economic gains are not sustainable. It is argued that the existing governance framework and nature of operations do not facilitate the sustained accumulation of income among the masses since small-scale mining is largely a survivalist activity in regions often devoid of economic prospects. Instead, the benefits of small-scale mining tend to accrue to a limited number, mostly traditional leaders and elites.

By shedding light on the role of local chiefs and traditional authorities within the extractive industry, this study draws attention to the need to recognize governance dynamics emanating from the interaction of state and non-state actors or structures. It is important to pay attention to how development outcomes are mediated by the pluralistic system of governance inherited from colonialism, where statutory and customary laws coexist in the same social field (Gebeye 2017; Pimentel 2011; Woodman 2011). The adoption of liberalized reforms spearheaded by the Bretton Woods Institutions failed to consider the power and influence of local chiefs and traditional authorities in host communities. As argued by Campbell (2010), the compatibility of mining reforms implemented on the continent was adversely affected by the centralized approach adopted by the World Bank, where local actors, particularly at the

community level, were excluded from consultations and deliberations about how to improve the development outcomes of the extractive industry. When assessing the governance of extractive industries, the concept of legal pluralism helps to “study the modes of governance and the ways in which power relations are inscribed into law and to understand how the law regulates access to resources and justice” and the lack thereof (Benda-Beckmann and Turner 2018, p. 264). According to Davies (2010), legal pluralism points to the multitude of overlapping and indeterminate types of law, regulation, and control, which contrasts the more solid, bounded and definitive notion of power and authority wielded by the nation-state. Therefore, the concept draws attention to how the development outcomes of gold mining are conditioned by the interaction of the customary system at the local level with normative ordering emanating from processes of globalization across the national and international scale.

Existing studies on the ‘resource curse’ have emphasised the role of host governments for their role in the underwhelming performance of resource-rich nations, especially at the national level. In fact, most of the existing analysis of the ‘resource curse’ can be criticized for being overly centred at the state and regional levels (Siakwah 2017b). However, this study contributes to a growing body of literature on the subnational resource curse by revealing the role of local actors, especially traditional leaders, in marginalising people in host communities. The study has shown how the nationalized system of natural resource ownership and the customary land tenure system in Ghana interact to create avenues for the manifestation of the resource curse at the subnational level. While extractive governance and ownership of natural resources are highly centralized in Ghana, this study has shown that host communities remain poor and underdeveloped as a result of the decisions of local government officials and traditional leaders on how allocated mineral royalties are utilized. As revealed by Boutilier (2017), the subnational resource curse manifests itself at the local level through corruption and rent-seeking behaviour. Furthermore, the marginalisation of local residents was conditioned by the interaction of customary user-right laws at the community level and compensation regulations formulated at the national level. Therefore, this study contributes to the literature on the subnational resource curse by revealing how local actors and institutions are essential variables that condition the detrimental outcomes of extractive activities.

Methodologically, this study contributes to the literature by highlighting the importance of context and situated analysis of the development outcomes of extractive industries. By conducting a multi-sited, cross-case, and cross-sector analysis, this study has shown how extractive activities simultaneously produce and reduce poverty among different social groups within the same geographical space. The analysis of large-scale mining in Akyempim and Salman revealed how development outcomes are sometimes conditioned by variations in the corporate culture of multinational companies. The cases of Salman and Akango, in relation to Adamus Resources, also revealed variations in the relationship between multinational companies and host communities. The multi-sited approach of this study was instrumental in developing a comprehensive understanding of the poverty outcomes of gold mining in Ghana. As argued by Jenkins *et al.* (2018), multi-sited research helps to produce findings that are reflective of context while also holding broader applicability across settings.

6.4 Policy Lessons or Implications

The multi-sited, cross-case and cross-sector analysis of the poverty outcomes of gold mining in host communities revealed the various limitations and shortcomings of the legislation governing the extractive industry in Ghana. The following sub-section highlights relevant issues that can inform policy decisions of not only the Ghanaian state but also multinational mining companies and international development partners, including the World Bank.

6.4.1 Recognize the Parallel System of Extractive Governance and its Effects on Outcomes

The utilization of gold mining for inclusive development and poverty alleviation requires policies and institutions that are ‘unusually good’ (Collier 2007). In terms of extractive governance, Ghana has garnered a reputation over the years as a good regulator with relatively strong institutions (Johnson 2019; Van Alstine 2014). However, the limited translation of natural resource wealth into broad-based development and poverty alleviation highlights the challenge of instituting ‘good’ governance policies that are beneficial to the masses. In fact, institutional performance is hindered by the prevailing competitive clientelist system where politicians prioritize short-term objectives of political survival and personal interest over long-term investments that are required to structurally transform the economy and promote more inclusive forms of development (Abdulai 2017; Bebbington *et al.* 2018; Whitfield 2018). While the need for ‘good’ policies and ‘better’ institutional quality places the focus of inquiry

on the nation-state, it is important to recognize how governance transcends the exercise of administrative and political authority of the government. As argued by Owusu (2018), analysing the development outcomes of resource exploitation requires recognizing how underdevelopment is conditioned by complex geopolitical factors and the role of transnational actors (multinational companies and international financial institutions). It is difficult to ignore the influence of the World Bank, IMF and Multinational Companies on various reforms or amendments made to Ghana's mining laws or policies since the 1980s. Resource-rich countries like Ghana have to grapple with the nature of contemporary international power relations, which challenges the sovereignty of individual nations to govern or manage their own affairs (Williams 2009).

Not only are policies and institutional quality affected by globalized structures and actors (see Siakwah 2017b), but this study highlights the need to pay attention to the role of local factors, such as the influence of traditional authorities and other elites in the community level. As an unintended consequence of Ghana's constitution, the nation is saddled with a 'parallel system' of extractive governance where liberalized mining policies have ensured a significant increase and preference for large-scale operations from the state and a corresponding growth in small-scale mining through the support of local chiefs and traditional authorities. The 'parallel system' of governance in the extractive industry emanates from tensions between ownership and user rights of mineral-rich land at the community level. According to Bebbington *et al.* (2018), ruling political elites are often dependent on traditional rulers as brokers of extractive land and votes in rural areas. Without adequate attention and an in-depth understanding of the dynamics of the pluralistic forms of governance (coexistence of statutory and customary laws) in a given context (Benda-Beckmann & Turner 2018; Gebeye 2017), policies and interventions are likely to be ineffective or unsustainable due to the failure to comprehend how state and non-state actors systematically interact (Swenson 2018). Therefore, reliance on gold mining as a path to development and poverty alleviation requires policies that consider the tensions and comprehensive influence of structures and actors across all scales.

A telling example of how the 'parallel system' of governance contributes to adverse development outcomes is evident with regard to the payment of compensations. As revealed

in this study, The payment of compensation to affected individuals is critical to mitigating the hardships faced by expropriated persons as well as attaining the sustainable development of host communities (Kidido *et al.* 2015). Despite the compensation laws of Ghana clearly stipulating the importance of ensuring that affected individuals are better off, the cases of Salman and Akyempim revealed how local residents had been marginalized and deprived, living in hardship, despite the implementation of the mining regulations. The marginalization and impoverishment of local residents are partly influenced by the clash between statutory laws and customary practices. In particular, the land tenure system makes it common to have multiple interests and rightsholders co-existing over a given area with different entitlements and claims.

This study has shed light on how the land tenure system and the share-cropping farming system negatively affected the amount of compensation received by displaced farmers. Respondents in both Akyempim and Salman stressed how tenant farmers had to share their compensation with landowners and local authorities who are custodians of the land. As argued by Kidido *et al.* (2015), there is very little clarity on the rightful recipients of compensation, the proportions to be received (if the amount is to be shared among claimants) and the conditions under which claims can be made. Therefore, it is important to recognize the tensions emanating from the plural legal environment in order to ensure that governance interventions are well-designed to reach the intended outcomes. Also, there is a need to clarify the role and position and, if possible, limit the power and influence of local chiefs and traditional rulers in the mining industry since they are agents of the marginalization and impoverishment of locals in host communities. Developing an in-depth understanding of the interaction or tensions between statutory laws and customary practices will be vital to addressing gold mining-related marginalization and impoverishment of local residents in host communities.

6.4.2 Revisiting Mining Legislation on Mineral Royalties & Its Implementation

Ghana is considered a ‘model of best practice’ in Africa, especially based on its policy of distributing a proportion of mineral royalties to local government institutions for the development of mining communities (Standing 2014). However, this study has revealed various discrepancies with the legislation on mineral royalties and their implementation. The allocation of mineral royalties makes a difference to the operations of local government bodies

in Ghana, as revenues obtained from the MDF are substantially higher than what is received from the District Assembly Common Fund (DACF) (see Boakye & Ofori 2021). Recognizing that host communities have remained poor (Lujala & Narh 2020), Act 912 was introduced to improve the disbursement of funds and ensure the socio-economic development of mining-affected communities. However, interviews with various local government officials revealed a lack of clarity surrounding the purpose of royalty allocations, delays in disbursement, and the fact that there are no mechanisms in place to hold district assemblies accountable. District assemblies insist that royalties are for the entire district and not allocated solely for the development of host mining communities. There are no clear provisions ensuring that a specific percentage of mineral royalties was spent on the mining communities. Therefore, the legislation is inadequate as it is unclear whether local government agencies are required to utilise allocated funds for development projects in host communities or the entire district (see Twerefou *et al.* 2015).

Besides issues of accountability with local government bodies, the enactment of MDF Act 912 and the subsequent establishment of the Mineral Income Investment Fund (MIIF) (Act 978) was expected to resolve disbursement delays from the Ministry of Finance. However, the disbursement delays have not been remedied as it was established that some mining companies continue to pay royalties directly to the Ministry of Finance. The delays in the payment raise questions about the commitment of the Ghanaian state to ensure the development of mining communities. As revealed in the interview at the MDF Secretariat, mineral royalties are easily repurposed to meet other needs of the government once they reach the Ministry of Finance.¹¹⁸ Furthermore, the study raised questions about the usefulness or value of the projects undertaken and highlighted the fact that the number of royalties allocated to the development of mining communities should be reviewed. It is unclear, however, whether there is an incentive for the Ghanaian state to increase allocations since there are some political implications in doing so. Calls to increase the fraction of royalties allocated to specific communities are a tricky political issue because it will be seen as the government prioritizing or investing more into the development of resource-rich areas over less endowed parts of the country.

¹¹⁸ Key Informant Interview 10, March 2021.

At the national level, the majority of mineral royalties (80%) from the gold mining industry end up in the Consolidated Fund (CF) or the Mineral Income Investment Fund (MIIF), controlled by the Ministry of Finance and are often used for general government budgetary support. Unlike the oil industry, which has the Petroleum Revenue Management Act (PRMA) providing a framework on how revenues are used, the gold mining sector lacks an equivalent policy document that restricts the discretionary power of the government over how mineral royalties are utilized. The lack of a longer-term vision for the gold mining sector (in the form of a revenue management act) is very problematic because of the competitive clientelist political system in Ghana. The centralized system of mining revenues going directly to the Ministry of Finance is favourable to ruling governments, as royalties can be easily repurposed to meet emerging priority areas or undertake projects that can help win the next election. Therefore, the two main political parties in Ghana are not incentivised to introduce the revenue management act (see Abdulai 2017; Bebbington *et al.* 2018).

The allocation of mineral royalties to traditional authorities and chiefs is a long-established policy which was adopted from colonialism and is not driven by socioeconomic development concerns but rather forms part of the co-optation and patronage strategy of the ruling government. In fact, there is a consensus among the two main ruling parties in Ghana on the allocation of rents to traditional authorities and chiefs (Abdulai 2017; Bebbington *et al.* 2018). However, this study has revealed the need to clarify the purpose of the share of royalties paid to chiefs and traditional councils, as it was a source of tension in the host communities. Not only is there a need to clarify the purpose of allocation, but the total amount of royalties paid (4.05% of total royalties paid by mining companies to the government) to traditional councils and chiefs might require review given that allocations for the development of host communities are quite small for financing projects capable of resolving challenges faced by local residents. The 1992 Constitution of Ghana fails to explicitly clarify the role of traditional authorities and chiefs in the governance structure of the country. While the constitution limits the power of chiefs to land ownership and control, recognizing customary institutions legitimizes traditional authorities as rulers of their subjects (Standing & Hilson 2013). This study has revealed the role of local chiefs and traditional authorities in mediating the development outcomes of gold mining. As dominant winners of extractive activities, local

chiefs and traditional authorities are not only recipients of royalties but are often provided labour contracts with large-scale mining companies. Therefore, revisiting the legislation to reduce the proportion of royalties allocated to chiefs and traditional authorities can help release more funds for the development of host communities. It is worth stating, however, that there is little incentive for the state to make the necessary amendments since local chiefs and traditional rulers are custodians of mineral-rich lands and often serve as proxies to the ruling government in parts of the country (especially rural areas) where state governance capacity is weak (Fox *et al.* 2011; Standing & Hilson 2013). Additionally, it is important to identify ways of empowering locals in host mining communities to actively influence decisions about how extractive revenues are utilized to meet their development lives. As argued by Awortwi and Nuvunga (2019) and Gaventa and Oswald (2019), the ability of people to act on disclosed information about extractive revenues depends on the extent to which they are empowered to influence decisions that affect their lives.

6.4.3 Rethinking CSR: the Shared Value Approach?

Corporate social responsibility (CSR) is often utilized as a tool to secure the social license for large-scale mining companies to operate, as it has been identified to reduce community activism against the social and environmental cost of extractive activities (Hilson 2012). This study has highlighted how variations in the development outcomes of large-scale mining are conditioned by differences in corporate culture. The cases of Akyempim and Salman revealed how the respective mining companies were significantly different in their approach to CSR. In fact, large-scale mining companies like Newmont Ghana and Golden Star Resources set aside \$1 of every ounce of gold sold for their respective community development foundations (see Danso *et al.* 2016; Golden Star Resources 2020), while Adamus Resources and others have opted against such an initiative. As argued by Essah and Andrews (2016), CSRs are mostly implemented by mining companies as a strategic public relations tactic to steer general public opinion in their favour – especially among people living outside host communities.

Given that CSR is widely seen as a voluntary activity, securing the commitment of mining companies to meet the development needs of host communities can be a challenge. While the term CSR connotes duties and obligations that resonate with social norms and values, they are not legally required or regulated (Dashwood 2012). Rather, CSR enables

mining companies to self-regulate by actively promoting public interest (both social and environmental) alongside meeting their financial responsibilities to shareholders or investors (Carroll & Bushholtz 2006). Therefore, the variations observed in the CSR activities of the mining companies examined in this study revealed the differences in corporate objectives of maximizing profits versus promoting the public interest.

Making CSR legally obligatory will not necessarily improve the commitment of mining companies to promoting the public interest or meeting the development needs of host communities since the availability of funds is often dependent on budgetary allocations. As established by Owen and Kemp (2015), mining companies easily relinquish their obligations during expansions, acquisitions, closures and divestments. Since large-scale mining companies are capitalist institutions primarily motivated by the maximization of profit and shareholder value, the only way to secure their commitment to alleviating poverty in host communities is to adopt a shared value approach to CSR. The concept of shared value refers to policies and practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in their host communities (Porter & Kramer 2011). As argued by Hoek (2020), the shared value approach builds on the ambition to move from reducing the negative impact of mining through CSR to creating a positive one framed around the principle that doing well and doing good are not mutually exclusive. With the shared value approach, mining companies are expected to have a positive impact on society and the environment without compromising profit and financial success.

To some extent, the Golden Star Oil Palm Plantation (GSOPP), a non-profit subsidiary of Golden Star Resources (Njoku 2021), can be labelled a shared value project since a share of the proceeds goes back to the company as profit. GSOPP has been operational since its inception in 2006, and Golden Star Resources remains committed to the alternative livelihood programme as it simultaneously generates financial, societal and environmental benefits. In addition to financial returns to stakeholders and the social benefits of job creation, palm trees are advantageous to the environment by sucking excess carbon, which helps Golden Star Resources to minimise its ecological footprint (Njoku 2021). This is to say that adopting the shared value model, where mining companies do not lose money but recoup their investment or even make profits, might be a viable way to secure their commitment to promoting public

interest in host communities. However, the success of the shared value approach to CSR depends on improved collaboration and continuous engagement between various stakeholders, as this study has highlighted how, for instance, the lack of local buy-in contributed to the poor performance of alternative livelihood programmes in host communities.

6.4.4 Reforming the Regulatory Environment of Small-scale Mining

This study has shed light on how the small-scale mining sector in Ghana has been an arena of great instability dating back to the colonial era (see Hilson 2002a). In contemporary times, the sector has grown in size along with the expansion of the large-scale sector, directly employing an estimated one million people (McQuilken & Hilson 2016). However, most of the operations occur without a formal license and have been a major governance issue for various governments (see Ayelazuno & Mawuko-Yevugah 2019). The fight against illegal mining takes the form of deploying the military to dispel and damage equipment used by small-scale miners. For instance, Operation Vanguard arrested 1,129 illegal miners and destroyed 7,000 pieces of mining equipment (Pein 2018). Vanguard was launched to enforce a ban imposed on all small-scale mining activities (both legal and illicit) in Ghana (Albrecht *et al.* 2021; Hilson & Maconachie 2020), and it had drastic impacts not only local economies but also on vulnerable groups like women and unemployed youth who depended on thriving operations for their livelihood (Kumah *et al.* 2020; Orleans-Boham *et al.* 2020). This study reveals that the sector functions as a safe haven for large-scale mining-displaced local residents in host communities.

The study also highlighted how the position of the government on the small-scale mining sector alternates from supporting operators to strengthening regulations and curbing illegal activities due to the competitive elections in Ghana. The introduction of the Community Mining Scheme during the lead-up to the 2020 election is similar to the strategy adopted in 2016 when the NPP government, then in opposition, made formalizing the sector a centrepiece of its campaign. According to Hilson (2017), the narrative of the NPP government, four months after the 2016 elections, quickly changed from supporting small-scale mining operations to ensuring jobs for young people to the need to tackle the ‘galamsey menace’ with the introduction of Operation Vanguard. Inconsistencies in the governance approach are quite detrimental to curtailing the adverse impacts and maximizing the strengths of small-scale

mining. Despite being more inclusive than the large-scale sector, small-scale mining equally generates inequalities through the hierarchical organizational structure. This study has shed light on how the nature of operations and labour processes employed by small-scale miners may be detrimental to poverty reduction and inclusive development. Further research is needed to deepen understanding of how the labour processes employed in the sector facilitate the exploitation of the masses in favour of surplus accumulation for the powerful elites. It is argued that the labour processes employed in the sector need to be critically examined to understand and expand knowledge of how it is exploitative, considering the growing recognition that small-scale mining can be a vehicle for poverty reduction and rural development (see Hentschel *et al.* 2002). Furthermore, the availability of geological data will be key to improving the productivity of small-scale miners and could curtail land degradation caused by the prospecting activities of operators. As argued by Hilson (2017), the Ghanaian government has been very passive in generating geological data that can inform licensing decisions and improve productivity in the small-scale mining sector.

A governance area worth reforming is the licensing or formalization legislation for the small-scale mining sector. Various scholars (Afriyie *et al.* 2016; Hilson *et al.* 2014; Hilson *et al.* 2017) have stressed the need to reform the formalization process as the costly, lengthy and frustrating bureaucracy associated with licensing makes illegal operations more appealing to prospective small-scale miners. The introduction of the Community Mining Scheme (CMS), Hilson *et al.* (2022) argue, promises to transform the formalization process into a more operator-friendly system involving local government units, which will (re)establish the decentralized platform donors desperately covet. Will formalization improve the poverty outcomes and development contribution of small-scale mining? The transition from illegal to formalized activities at Akango did not lead to a significant change in the nature of operations. As a matter of fact, the hierarchical payment system, which ensures that most of the benefits accrue to traditional authorities and elites, remained unchanged with the community mining scheme at Akango, which has been framed as ‘cooperative mining’ according to the consultant with the Coordinating Unit of GLRSSM.¹¹⁹ Furthermore, the CMS has been deeply engulfed in politics through the selective implementation of the policy in a bid to garner votes for the

¹¹⁹ Key informant Interview 30, April 2021.

ruling party in an election year hence the lack of clarity among civil servants of local government units, as well as officials of the Minerals Commission at the regional and district level.

Although CMS may inspire hope of facilitating a decentralized licensing process and a galvanized support structure for small-scale mining operators (Hilson *et al.* 2022), the top-down implementation of the policy in the lead-up to the 2020 elections is a source of concern. It supports the argument that it was motivated by the political survival motives of the ruling government. As stated by the respondent from the Water Resources Commission, the implementation of the policy was politically rushed.¹²⁰ The competitive clientelist political system prevalent in Ghana doesn't offer much continuity in policy directives for the small-scale sector. Can the large-scale mining bias be eliminated in Ghana? Eliminating state bias toward large-scale mining and the politics associated with the governance of the small-scale sector will be challenging, given how the government depends on the gold industry for domestic revenue mobilization. Additionally, opportunities for political elites to capture mineral rent through small-scale mining may not incentivise lasting changes to the governance approach of the sector.

In line with calls by scholars such as Hilson and Garforth (2012; 2013) and Hilson and Osei (2014) to recognize the broader contributions of small-scale mining to rural livelihoods, various development partners have initiated projects seeking to reform the sector in Ghana. For example, the Ghana Landscape Restoration and Small-scale Mining Project is a World Bank-funded initiative with a budget of US\$ 102 million and aims to formalize the sector, promote sustainable practices, and build the capacity of governance institutions to manage ASM operations (World Bank 2021b). Additionally, organizations such as UNDP and the US Department of State have initiated projects aimed at providing mercury-free technologies to help reduce the environmental cost of small-scale mining after Ghana ratified the Minamata Convention on Mercury in 2017 (see Kippenberg 2017; Wilson *et al.* 2015). Although such initiatives from development partners may prove beneficial in providing support for a sector that has been largely neglected in favour of investment from large-scale mining companies,

¹²⁰ Key Informant Interview 34, July 2021.

success in reforming the governance approach to small-scale mining could be derailed by the deeply ingrained interest and influence of both state and non-state actors in Ghana.

References

- Abdulai, A. G. (2017) 'Competitive clientelism and the political economy of mining in Ghana', *Effective States and Inclusive Development Working Paper No. 78*. Manchester: ESID Research Centre
- Ablo, A. D. (2015) 'Local content and participation in Ghana's oil and gas industry: Can enterprise development make a difference?', *The Extractive Industries and Society*, 2(2), 320-327.
- Ablo, A. D. (2019) 'Enterprise development? Local content, corporate social responsibility and disjunctive linkages in Ghana's oil and gas industry', *The Extractive Industries and Society*, 7(2), 321-327.
- Ackah-Baidoo, P. (2016) 'Youth Unemployment in Resource-Rich Sub-Saharan Africa: A Critical Review', *The Extractive Industries and Society*, 3, 249-261.
- Adam, A. B., Owen, J. R., & Kemp, D. (2015) 'Households, livelihoods and mining-induced displacement and resettlement', *The Extractive Industries and Society*, 2(3), 581-589.
- Addison, T., & Roe, A. (eds.) (2018) *Extractive Industries: The management of resources as a driver of sustainable development*, Oxford: Oxford University Press.
- Adogla-Bessa, D. (2021, October 21) 'Government owes Common Fund over GH¢2 billion – Minority', *Citi Newsroom*. Retrieved from <https://citinewsroom.com/2021/10/government-owes-common-fund-over-gh%2%A22-billion-minority/>
- Adomako-Kwakye, C. (2018) 'Neglect of Mining Areas in Ghana: the Case for Equitable Distribution of Resource Revenue', *Commonwealth Law Bulletin*, 44(4), 637-651, DOI: 10.1080/03050718.2019.1667253
- Adonteng-Kissi, O. (2017) 'Poverty and Mine's Compensation Package Experiences of Local Farmers in Prestea Mining Community', *Resources Policy*, 52, 226-234.
- Adu-Baffour, F., Daum, T., & Birner, R. (2021) 'Governance challenges of small-scale gold mining in Ghana: Insights from a process net-map study', *Land Use Policy*, 102, 105271
- African Development Bank (AFDB) (2016) 'Creating local content for human development in Africa's new natural resource-rich countries', *Flagship Report Paper Series*, Paper 6.
- Afriyie, K., Ganle, J. K., & Adomako, J. A. A. (2016) 'The good in evil: A discourse analysis of the galamsey industry in Ghana', *Oxford Development Studies* 44(4), 493-508.

- Aidoo, R. (2016) 'The Political Economy of Galamsey and Anti-Chinese Sentiment in Ghana', *African Studies Quarterly*, 16(3/4), 55.
- Akabzaa, T. (2004) 'Mining Legislation and Net Returns from Mining in Ghana', In Campbell, B. K. (Ed.) *Regulating mining in Africa: for whose benefit?*, Discussion Paper 26, Nordic Africa Institute, 25- 29. Retrieved from <https://ceim.uqam.ca/db/IMG/pdf/Manuscrit-Eng-2004.pdf>
- Akabzaa, T. (2009) 'Mining in Ghana: Implications for National Economic Development and Poverty Reduction', In, B. Campbell (ed.) *Mining in Africa: Regulation and Development*, New York: Pluto Press, 25-65.
- Albrecht, P., Aubyn, F., & Edu-Afful, F. (2021) 'Halt and Vanguard: Two military operations in Ghana and their consequences', *Danish Institute for International Studies (DIIS) Policy Brief* December 2021. Retrieved from https://pure.diis.dk/ws/files/4873158/DIIS_PB_Halt_and_Vanguard_Web_locked.pdf
- Allcott, H., & Keniston, D. (2014) 'Dutch Disease or Agglomeration? The Local Economic Effects of Natural Resource Booms in Modern America', In *National Bureau of Economic Research Working Paper* No. 20508. Cambridge, MA
- Amankwah, R. K., & Anim-Sackey, C. (2003) 'Strategies for sustainable development of the small-scale gold and diamond mining industry of Ghana', *Resources Policy*, 29(3-4), 131-138.
- Amegbey, N. A., & Adimado, A. A. (2003) 'Incidents of cyanide spillage in Ghana', *Mineral Processing and Extractive Metallurgy*, 112(2), 126-130.
- Anderson, G. (2012) *Oil and gas in federal systems*, Oxford University Press.
- Andrews, N. (2018) 'Land Versus Livelihoods Community Perspectives on Dispossession and Marginalization in Ghana's mining sector', *Resources Policy*, 58, 240-249.
- Andrews, N. (2016) 'A Swiss-Army Knife? A Critical Assessment of the Extractive Industries Transparency Initiative (EITI) in Ghana', *Business and Society Review* 121(1), 59–83
- Annim, A. A. (2019, November 24) '12 Communities Sign MoU with Golden Star Wassa Mines', *Citi Newsroom*. Retrieved from <https://citinewsroom.com/2019/11/12-communities-sign-mou-with-golden-star-wassa-mines/>
- Aragón, F. M., & Rud, J. P. (2013) 'Natural resources and local communities: evidence from a Peruvian gold mine', *American Economic Journal: Economic Policy* 5(2), 1-25.

- Arellano-Yanguas, J. (2008) 'A Thoroughly Modern Resource Curse? The New Natural Resource Policy Agenda and the Mining Revival in Peru', *IDS Working Paper* 300.
- Arellano-Yanguas, J. (2011) 'Aggravating the resource curse: decentralisation, mining and conflict in Peru', *The Journal of Development Studies*, 47(4), 617-638.
- Arrighi, G., Aschoff, N., & Scully, B. (2010) 'Accumulation by dispossession and its limits: The Southern Africa paradigm revisited', *Studies in Comparative International Development*, 45(4), 410-438.
- Aruga, K., & Kannan, S. (2020) 'Effects of the 2008 financial crisis on the linkages among the oil, gold, and platinum markets', *Cogent Economics & Finance*, 8(1), 1807684.
- Aryee, B. N. A. (2001) 'Ghana's mining sector: its contribution to the national economy', *Resources Policy*, 27, 61-75.
- Aryee, B. N.A., Ntibery, B.K. & Atorkui, E. (2003) 'Trends in the small-scale mining of precious minerals in Ghana: a perspective on its environmental impact', *Journal of Cleaner Production* 11, 131-140
- Asare, W. (2022, March 15) 'MIIF to Increase Royalties with Establishment of Inter-agency Framework Task Force', Retrieved from <https://asaaseradio.com/miif-to-increase-royalties-with-establishment-of-inter-agency-framework-and-task-force/>
- Ashiadey, F. (2014) 'Improving the Impact of Mining Royalties at the Local Level in Ghana' (EITI 2014)', *Auditor General's Report*. Retrieved from <https://eiti.org/blog/improving-impact-of-mining-royalties-at-local-level-in-ghana>
- Asravor, R. K. (2018) 'Livelihood diversification strategies to climate change among smallholder farmers in Northern Ghana', *Journal of International Development*, 30(8), 1318-1338.
- Atkinson, P. & Coffey, A. (2011) 'Analysing Documentary Realities', In, D. Silverman (ed.), *Qualitative Research*, London: Sage Publication Ltd, 77-92.
- Attua, E. M., Annan, S. T., & Nyame, F. (2014) 'Water quality analysis of rivers used as drinking sources in artisanal gold mining communities of the Akyem-Abuakwa area: A multivariate statistical approach', *Ghana Journal of Geography*, 6, 24-41.
- Aubynn, A. (2009) 'Sustainable Solution or a Marriage of Inconvenience? The Coexistence of Large-scale Mining and Artisanal and Small-scale Mining on the Abooso Goldfields Concession in Western Ghana', *Resources Policy*, 34(1-2), 64-70

- Auty, R. M. & Kiiski, S. (2001) 'Natural Resources, Capital Accumulation, Structural Change, and Welfare', In, R. M. Auty (Ed.), *Resource Abundance and Economic Development*, Oxford: Oxford University Press, 19-35.
- Auty, R. M. (2001) *Resource Abundance and Economic Development*, Oxford: Oxford University Press.
- Auty, R. M. (2003) *Sustainable Development in Mineral Economies: The Resource Curse*, London, and New York: Routledge
- Awal, M. (2012) 'Ghana: democracy, economic reform, and development, 1993 – 2008', *Journal of Sustainable Development in Africa* 14, 1: 97 – 118.
- Awortwi, N., & Nuvunga, A. (2019) *Sound of one hand clapping: Information disclosure for social and political action for accountability in extractive governance in Mozambique*, IDS Working Paper 523, Brighton: IDS.
- Awudi, B. K. (2002) 'The role of foreign direct investment (FDI) in the mining sector of Ghana and the environment', A Paper Presented at the Conference on Foreign Direct Investment and the Environment (7-8 February). *OECD, Paris, France* Retrieved from <https://www.oecd.org/countries/ghana/1819492.pdf>
- Ayee, J., Søreide, T., Shukla, G. P., & Le, T. M. (2011) 'Political economy of the mining sector in Ghana', *The World Bank Policy Research Working Paper* 5730
- Ayelazuno, J. A., & Mawuko-Yevugah, L. (2019) 'Large-scale mining and ecological imperialism in Africa: The politics of mining and conservation of the ecology in Ghana', *Journal of Political Ecology*, 26(1), 243-262.
- Ayers, A. (2012) 'Beyond Myths, Lies and Stereotypes: The Political Economy of a 'New Scramble for Africa'', *New Political Economy*, DOI: 10.1080/13563467.2012.678821
- Baah, K., & Kidido, J. K. (2020) 'Sharecropping arrangement in the contemporary agricultural economy of Ghana: A study of Techiman North District and Sefwi Wiawso Municipality, Ghana', *Journal of Planning and Land Management*, 1(2), 50–62. <https://doi.org/10.36005/jplm.v1i2.22>
- Baah-Boateng, W. & Twum, E. K. (2020) *Pathways to structural transformation of the Ghanaian economy—and some roadblocks*. Brookings: Africa in Focus. <https://www.brookings.edu/blog/africa-in-focus/2020/09/03/pathways-to-structural-transformation-of-the-ghanaian-economy-and-some-roadblocks/>
- Banchirigah, S. M. (2006) 'How have reforms fuelled the expansion of artisanal mining? Evidence from sub-Saharan Africa', *Resources Policy*, 31(3), 165-171.

- Banchirigah, S. M. (2008) 'Challenges with eradication illegal mining in Ghana: A perspective from the grassroots', *Resources Policy* 33, 29-38.
- Bansah K. J. Dumakor-Dupey, N. K. Kansake, B. A. Assan, E. & Bekui, P. (2018) 'Socioeconomic and environmental assessment of informal artisanal and small-scale mining in Ghana', *Journal of Cleaner Production* 202, 465-475
- Barry, M. (Ed.) (1996) 'Regularizing informal mining: a summary of the proceedings of the international roundtable on artisanal mining', *Industry and Energy Department, World Bank Occasional Paper No. 6* Retrieved from <https://documents1.worldbank.org/curated/en/509771468767381318/pdf/multi-page.pdf>
- Basedau, M. (2005) 'Context matters – Rethinking the resource curse in sub-Saharan Africa' *GIGA Working Paper No 1*, Available at SSRN: <http://dx.doi.org/10.2139/ssrn.906983>
- Baxter, J. (2010) 'Case Studies in Qualitative Research', In I. Hay (ed.) *Qualitative Research Methods in Human Geography*, Canada: Oxford University Press, 81- 97.
- Bebbington, A., Abdulai, A. G., Humphreys Bebbington, D., Hinfelaar, M., & Sanborn, C. (2018) *Governing Extractive Industries: Politics, Histories, Ideas*, Oxford: Oxford University Press.
- Bebbington, A., Hinojosa, L., Bebbington, D. H., Burneo, M. L., & Warnars, X. (2008) 'Contention and ambiguity: Mining and the possibilities of development', *Development and Change*, 39(6), 887-914.
- Benda-Beckmann, K. V., & Turner, B. (2018) 'Legal Pluralism, Social Theory, and the State', *The Journal of Legal Pluralism and Unofficial Law* 50(3), 255-274.
- Besada, H., & Martin, P. (2015) 'Mining codes in Africa: Emergence of a 'fourth' generation', *Cambridge Review of International Affairs*, 28(2), 263-282.
- Bird, C. M. (2005) 'How I Stopped Dreading and Learned to Love Transcription', *Qualitative Inquiry*, 11(2), 226-348.
- Blas, J. (2014 February 3) 'Equatorial Guinea: Squandered riches' *Financial Times*. Retrieved from <https://www.ft.com/content/a06d499a-8a99-11e3-ba54-00144feab7de>
- Bloch, R., & Owusu, G. (2012) 'Linkages in Ghana's gold mining industry: Challenging the enclave thesis', *Resources Policy* 37(4), 434-442.
- Blowfield, M., & Frynas, J. G. (2005) 'Editorial Setting new agendas: critical perspectives on Corporate Social Responsibility in the developing world', *International affairs*, 81(3), 499-513.

- Boafo, J., Paolo, S. A. & Dotsey, S. (2019) 'Illicit Chinese Small-Scale Mining in Ghana: Beyond Institutional Weakness?' *Sustainability* 11(5943), 1-18; doi:10.3390/su11215943
- Boakye, B., & Ofori, C. G. (2021) 'Challenges in District Assemblies Common Fund and Minerals Development Fund Disbursements: The Implication for Local Governance and Decentralisation', *Africa Centre for Energy Policy*. Retrieved from <https://storage.googleapis.com/stateless-acep-africa/2021/07/CHALLENGES-IN-DACF-AND-MDF-DISBURSEMENTS.pdf>
- Boege, V., Brown, M. A., & Clements, K. P. (2009) 'Hybrid political orders, not fragile states' *Peace Review* 21(1), 13-21.
- Bond, P. (2007) 'Primitive Accumulation, Enclavity, Rural Marginalisation and Articulation', *Review of African Political Economy* 34(111): 29–37.
- Bond, P. (2008) 'Accumulation by dispossession in Africa: False Diagnoses and Dangerous Prescriptions', In J. Mensah, (ed.), *Neoliberalism and Globalization in Africa: Contestations on the Embattled Continent*, New York: Palgrave Macmillan, 17-31.
- Bontadini, F., & Savona, M. (2019) 'Revisiting the Natural Resource 'Curse' in the Context of Trade in Value Added: Enclave or High-development Backward Linkages?', *University of Sussex Science Policy Research Unit (SPRU) Working Paper Series SWPS 2019-15* (August)
- Boschini, A. D., Pettersson, J., & Roine, J. (2007) 'Resource curse or not: A question of appropriability,' *Scandinavian Journal of Economics*, 109(3), 593-617.
- Botchwey, G., Crawford, G., Loubere, N. & Lu, J. (2018) 'South-South Labour Migration and the Impact of the Informal China-Ghana Gold Rush 2008–13', *UNU-WIDER* 2018 Working Paper 2018/16. Available online: <https://www.wider.unu.edu/publication/south-south-labour-migration-and-impact-informal-chinaghana-gold-rush-2008--13>
- Boutilier, R. G. (2017) 'Raiding the honey pot: The resource curse and weak institutions at the project level', *The Extractive Industries and Society*, 4(2), 310-320.
- Bowen, G. A. (2009) 'Document Analysis as a Qualitative Research Method', *Qualitative Research Journal*, 9(2), 27-40.
- Braun, V., & Clarke, V. (2006) 'Using Thematic Analysis in Psychology', *Qualitative Research in Psychology* 3,77–101.

- Bridge, G (2004) 'Mapping the bonanza: geographies of mining investment in an era of neoliberal reform', *Professional Geographer*, 56(3), 406–421
- Brinkmann, S. (2018) 'The Interview', In, N. K. Denzin and Lincoln, Y. S. (eds.) *The SAGE Handbook of Qualitative Research* (5th edition), California: Sage Publications Inc, 997-1038.
- Brunnschweiler, C. N. & Bulte, E. (2008) 'The resource curse revisited and revised: a tale of paradoxes and red herrings', *Journal of Environmental Economics and Management* 55, 248-264.
- Brunnschweiler, C. N. (2008) 'Cursing the blessings? Natural-resource abundance, institutions and economic growth', *World Development* 36(3), 399-419.
- Bryceson, D. F., & Jønsson, J. B. (2014) 'Pursuing an artisanal mining career: Downward success', In, D. F. Bryceson, E. Fisher, J. B. Jønsson, & R. Mwaipopo (eds.). *Mining and social transformation in Africa: Mineralizing and democratizing trends in artisanal production*. London and New York: Routledge, 44-60.
- Bryman, A. (2007) 'Barriers to Integrating Quantitative and Qualitative Research', *Journal of Mixed Methods Research*, 1(1), 8-22.
- Bryman, A. (2012) *Social Research Methods*, Oxford University Press.
- Burgis, T. (2010, March 23) 'Mining money fails to usher in golden era for Ghana', *Financial Times*. Retrieved from <https://www.ft.com/content/0d3e06c4-35dd-11df-aa43-00144feabdc0>
- Burgis, T. (2015) *The looting machine: Warlords, oligarchs, corporations, smugglers, and the theft of Africa's wealth*, New York: Public Affairs.
- Butler, P. (2004) 'Tanzania: Liberalisation of Investment and the Mining Sector Analysis of the Content and Certain Implications of the Tanzania 1998 Mining Act', In Campbell, B. K. (Ed.) *Regulating mining in Africa: for whose benefit?*, Discussion Paper 26, Nordic Africa Institute, 67- 80. Retrieved from <https://ceim.uqam.ca/db/IMG/pdf/Manuscrit-Eng-2004.pdf>
- Campbell, B. (2010) 'Revisiting the reform process of African mining regimes', *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 30(1-2), 197-217.
- Campbell, B. K. (Ed.) (2004) *Regulating mining in Africa: for whose benefit?* Discussion Paper 26, Nordic Africa Institute. Retrieved from <https://ceim.uqam.ca/db/IMG/pdf/Manuscrit-Eng-2004.pdf>

- Canel, E., Idemudia, U., & North, L. L. (2010) 'Rethinking extractive industry: Regulation, dispossession, and emerging claims', *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 30(1-2), 5-25.
- Carmody, P. (2009) 'Cruciform sovereignty, matrix governance and the scramble for Africa's oil Insights from Chad and Sudan', *Political Geography* 28(6), 353-361.
- Carmody, P. (2016) *The New Scramble for Africa (2nd Edition)*, Cambridge: Polity.
- Carroll, A. B., & Buchholtz, A. K. (2006) *Business & Society: Ethics and Stakeholder Management*, Mason, Ohio: Thomson South-Western.
- Carter, M. R., Little, P. D., Mogues, T., & Negatu, W. (2007) 'Poverty traps and natural disasters in Ethiopia and Honduras', *World Development* 35(5), 835-856.
- Caselli, F., & Michaels, G. (2013) 'Do Oil Windfalls Improve Living Standards? Evidence from Brazil', *American Economic Journal: Applied Economics* 5(1), 208-38.
- Caspary, G. (2012) 'Practical steps to help countries overcome the resource curse: The extractive industries transparency initiative', *Global Governance* 18(2): 171-184.
- Castro, F. G., Kellison, J. G., Boyd, S. J., & Kopak, A. (2010) 'A Methodology for Conducting Integrative Mixed Methods Research and Data Analysis', *Journal of Mixed Methods Research*, 4(4), 342-360.
- Cavalcanti, T. V. D. V., Mohaddes, K., & Raissi, M. (2011) 'Growth, development and natural resources: New evidence using a heterogeneous panel analysis', *The Quarterly Review of Economics and Finance* 51(4), 305-318.
- Christiaensen, L., Chuhan-Pole, P., & Sanoh, A. (2013). Africa's growth, poverty and inequality nexus-fostering shared prosperity. *World Bank Report*.
- Chuhan-Pole, P., Dabalén, A. L., & Land, B. C. (2017) *Mining in Africa: are local communities better off?* Washington, DC: World Bank Publications.
- Cision (2012, March 5) 'Endeavour Mining Completes Salman Village Resettlement in Ghana', Retrieved from <https://www.newswire.ca/news-releases/endeavour-mining-completes-salman-village-resettlement-in-ghana-509744771.html>
- Cobbinah, P. B., & Amoako, C. (2018) 'From Gold Coast to Ghana: Changing political economy of mining towns', *Cities* 83, 83-91.
- Coffey, A. (2014) 'Analysing Documents', In, U. Flick (ed.) *The SAGE Handbook of Qualitative Data Analysis*, Los Angeles: Sage publications, 367-379.

- Collier, P. & Hoeffler, A. (2005) 'Resource Rents, Governance, and Conflict', *Journal of Conflict Resolution* 49(4), 625–33.
- Collier, P. (2007). *The bottom billion: why the poorest countries are failing and what can be done about it*, Oxford: Oxford University Press.
- Collier, P., & Venables, A. (Eds.). (2011) *Plundered nations?: Successes and failures in natural resource extraction*, London: Palgrave Macmillan.
- Communications Bureau (2020, August 19) 'New Community Mining Schemes to Create 12,000 Jobs At Aboso, Gwira & Akango' – President Akufo-Addo', Retrieved from <https://presidency.gov.gh/index.php/briefing-room/news-style-2/1653-new-community-mining-schemes-to-create-12-000-jobs-at-aboso-gwira-akango-president-akufo-addo>
- Cooke, E., Hague, S. & McKay, A. (2016) 'The Ghana Poverty and Inequality Report: Using the 6th Ghana Living Standards Survey,' Retrieved from [https://www.unicef.org/ghana/Ghana_Poverty_and_Inequality_Analysis_FINAL_Match_2016\(1\).pdf](https://www.unicef.org/ghana/Ghana_Poverty_and_Inequality_Analysis_FINAL_Match_2016(1).pdf)
- Cope, M. (2010) 'A History of Qualitative Research in Geography', In, D. DeLyser, S. Herbert, S. Aitken, M., Crang, & McDowell, L. (eds.) *The SAGE Handbook of Qualitative Geography*, Sage Publications, 25-45.
- Creswell, J. W. (2009) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*, Sage Publications Inc.
- Creswell, J. W. (2014) *Qualitative, Quantitative and Mixed Methods Approaches*, Sage Publications Inc.
- Cust, J., & Viale, C. (2016) 'Is there evidence for a subnational resource curse', *Policy Paper. Natural Resource Governance Institute (NRGI)*.
- Cust, J., & Poelhekke, S. (2015) 'The local economic impacts of natural resource extraction', *Annual Review of Resource Economics* 7(1), 251-268.
- Cuvelier, J. (2019) 'Mining in comparative perspective: Trends, transformations and theories', *The Extractive Industries and Society*, 6(2), 378-381.
- Dam, L., & Scholtens, B. (2008) 'Environmental regulation and MNEs location: Does CSR matter?', *Ecological Economics*, 67(1), 55-65.
- Danso, J., Aubynn, E., Coppel, A., John, Z., & Teschner, B. (2016) 'The Newmont Ahafo Development Foundation—putting shared value into action', *Proceedings of Mining and Communities Solutions*, 1-11.

- Danyo, G. & Osei-Bonsu, A. (2016) 'Illegal Small-Scale Gold Mining in Ghana: A Threat to Food Security', *Journal of Food Security*, 4(5), 112-119. doi: 10.12691/jfs-4-5-2.
- Dartey-Baah, K., Amponsah-Tawiah, K., & Aratuo, D. (2012) 'Emerging "Dutch disease" in emerging oil economy: Ghana's perspective', *Society and Business Review* 7(2), 185-199.
- Dashwood, H. (2012) *The Rise of Global Corporate Social Responsibility: Mining and the Spread of Global Norms*, Cambridge: Cambridge University Press.
- Dashwood, H. S., Idemudia, U., Pupilampu, B. B., & Webb, K. (2022) 'Ghana's adoption of the Extractive Industries Transparency Initiative (EITI): The path from data disclosure to community accountability', *The Extractive Industries and Society*, 10, 101068.
- Davies, M. (2010) 'Legal Pluralism', In, P. Cane & H. Kritzer (Eds.) *The Oxford handbook of empirical legal research* (pp. 805-827), Oxford: Oxford University Press.
- Deacon, R. T. (2011) 'The Political Economy of the Natural Resource Curse: A Survey of Theory and Evidence', *Foundations and Trends in Microeconomics* 7(2), 111-208. <http://dx.doi.org/10.1561/07000000042>
- Deaton, B. J., & Niman, E. (2012) 'An empirical examination of the relationship between mining employment and poverty in the Appalachian region', *Applied Economics* 44(3), 303–312.
- Debrah, E. & Asante, R. (2019) 'Sino-Ghana bilateral relations and Chinese migrants' illegal gold mining in Ghana', *Asian Journal of Political Science* 27(3), 286–307
- Diao, X., Hazell, P., Kolavalli, S., & Resnick, D. (2019) *Ghana's economic and agricultural transformation: Past performance and future prospects*. Oxford: Oxford University Press
- Dowling, R. (2010) 'Power, Subjectivity and Ethics in Qualitative Research', In, I. Hay (ed.) *Qualitative Research Methods in Human Geography*, Canada: Oxford University Press, 26-39.
- Draper, J. (2004) 'The Relationship Between Research Question and Research Design', In, P. A. Crookes and Davies, S. (eds.) *Research into Practice: Essential Skills for Reading and Applying Research in Nursing and Health Care* (2nd edition), Edinburgh: Bailliere Tindall, 69–84.
- Dunning, T. (2008) *Crude democracy: Natural resource wealth and political regimes*, Cambridge: Cambridge University Press.

- Edubi, O. (2022, February 27) 'Ghana lacks international certification on gold trade – UK', *Nature News*. Retrieved from <https://naturenews.africa/ghana-lacks-international-certification-on-gold-trade-uk/>
- Elwood, S. (2010) 'Mixed Methods: Thinking, Doing, and Asking in Multiple Ways', In, D. DeLyser, S. Herbert, S. Aitken, M., Crang, & McDowell, L. (eds.) *The SAGE Handbook of Qualitative Geography*, Sage Publication, 94-113.
- Elwood, S., Lawson, V., & Sheppard, E. (2017) 'Geographical relational poverty studies', *Progress in Human Geography*, 41(6), 745-765.
- Esdaile, L. J., & Chalker, J. M. (2018) 'The mercury problem in artisanal and small-scale gold mining', *Chemistry—A European Journal*, 24(27), 6905-6916.
- Essah, M. (2022) 'Gold mining in Ghana and the UN Sustainable Development Goals: Exploring community perspectives on social and environmental injustices', *Sustainable Development*, 30(1), 127-138.
- Essah, M., & Andrews, N. (2016) 'Linking or de-linking sustainable mining practices and corporate social responsibility? Insights from Ghana', *Resources Policy*, 50, 75-85.
- Esteves, A. M., Coyne, B., & Moreno, A. (2013) 'Local Content Initiatives: Enhancing the subnational benefits of the oil, gas and mining sectors', *Briefing, Revenue Watch Institute*.
- Feldman, G. (2019) 'Towards a Relational Approach to Poverty in Social Work Research and Practice Considerations', *The British Journal of Social Work*, 49(7), 1705-1722.
- Ferguson, J. (2005) 'Seeing like an oil company: space, security, and global capital in neoliberal Africa', *American Anthropologist*, 107(3), 377-382.
- Fisher, E., Mwaipopo, R., Mutagwaba, W., Nyange, D., & Yaron, G. (2009) "The ladder that sends us to wealth": Artisanal mining and poverty reduction in Tanzania', *Resources Policy*, 34(1-2), 32-38.
- Fleming, D. A., Measham, T. G., & Paredes, D. (2015) 'Understanding the resource curse (or blessing) across national and regional scales: Theory, empirical challenges and an application', *Australian Journal of Agricultural and Resource Economics* 59(4), 624-639.
- Flick, U. (2018) 'Triangulation in Data Collection', In, U. Flick. (ed.) *The Sage Handbook of Qualitative Data Collection*, Los Angeles: Sage Publications, 527-544.
- Fox, L., Hoffman, B., Anyimadu, A. & Keshishian, M. (2011) *Ghana democracy and governance assessment: Final report*. USAID. Ghana. Retrieved from <https://democracyinternational.com/media/Ghana%20DG%20Assessment.pdf>

- Frankel, J.A. (2010) 'The natural resource curse: a survey', *John F. Kennedy School of Government, Harvard University*, HKS Faculty Research Working Paper, RWP10-005.
- Franks, D. M. (2020) 'Reclaiming the neglected minerals of development', *The Extractive Industries and Society* 7(2), 453-460.
- Freedom House (2022) 'Freedom in the World 2022 – Ghana Country Report'. Retrieved from <https://freedomhouse.org/country/ghana/freedom-world/2022>
- Frimpong, E. D. (2015) 'Western region chiefs express 'anger' over oil revenue', *Graphic Online*. Retrieved from <https://www.graphic.com.gh/news/general-news/western-region-chiefs-express-anger-over-oil-revenue.html>
- Frynas, J. G. (2008) 'Corporate social responsibility and international development: Critical assessment', *Corporate Governance: An International Review*, 16(4), 274-281.
- Fum, R. M., & Hodler, R. (2010) 'Natural resources and income inequality: The role of ethnic divisions', *Economics Letters* 107(3), 360-363.
- Gajigo, O., Mutambatsere, E., & Mdiaye, G. (2012) *Gold mining in Africa: Maximizing economic returns for countries*, Tunis, Tunisia: African Development Bank.
- Gamu, J., Le Billon, P., & Spiegel, S. (2015) 'Extractive industries and poverty: A review of recent findings and linkage mechanisms', *The Extractive Industries and Society* 2(1), 162-176.
- Gaventa, J., & Oswald, K. (2019) 'Empowerment and Accountability in Difficult Settings: What Are We Learning?', *Key Messages Emerging from the Action for Empowerment and Accountability Programme*, Brighton.
- Gebeye, B. A. (2017) 'Decoding legal pluralism in Africa', *The Journal of Legal Pluralism and Unofficial Law*, 49(2), 228-249.
- Geenen, S. (2019) 'Gold and godfathers: Local content, politics, and capitalism in extractive industries', *World Development*, 123, 104605.
- Ghana Chamber of Mines (2021a) *2020 Mining Industry Statistics and Data*, Accra, Ghana. Retrieved from <https://ghanachamberofmines.org/wp-content/uploads/2021/09/2020-Mining-Industry-Statistics-and-Data.pdf>
- Ghana Chamber of Mines (2021b) *Ghana Chamber of Mines Annual Report 2020*, Accra, Ghana. Retrieved from https://ghanachamberofmines.org/wp-content/uploads/2020/05/2019-Annual-Report_Complete.pdf

- Gilberthorpe, E., & Papyrakis, E. (2015) 'The extractive industries and development: The resource curse at the micro, meso and macro levels', *The Extractive Industries and Society*, 2(2), 381-390.
- GNA – Ghana News Agency (2011, February 11) 'Salman community against mining activities of Adamus Resources Limited', *Ghana Business News*. Retrieved from <https://www.ghanabusinessnews.com/2011/02/02/salman-community-against-mining-activities-of-adamus-resources-limited/>
- Goderis, B., & Malone, S. W. (2011) 'Natural resource booms and inequality: theory and evidence', *Scandinavian Journal of Economics* 113(2), 388-417.
- Gokmenoglu, K. K., & Fazlollahi, N. (2015) 'The interactions among gold, oil, and stock market: Evidence from S&P500', *Procedia Economics and Finance* 25, 478 – 488
- Golden Star Resources (2020) 'Policy on Community Development and Support', Retrieved from http://s1.q4cdn.com/789791377/files/doc_downloads/2020/Policies/2020-05-14_GSR-Policy-on-Community-Development-and-Support.pdf
- Goodwin, M. (2009) 'Governance', In, R. Kitchin, and N. Thrift (eds.). *International Encyclopedia of Human Geography*, Elsevier, 593-599.
- Gough, K. V. & Yankson, P. W. K. (2012) 'Exploring the connections: mining and urbanisation in Ghana', *Journal of Contemporary African Studies* 30(4), 651-668
- Government of Ghana (2003) *Labour Act 2003- Act 651*. Retrieved from <https://www.ilo.org/legacy/english/inwork/cb-policy-guide/ghanalabouract2003section109.pdf>
- GSS (Ghana Statistical Service) (2013) '2010 Population and Housing Census, National Analytical Report', *Ghana Statistical Service*, Accra, Ghana.
- GSS (Ghana Statistical Service) (2014) 'District Analytical Report – Nzema East District: 2010 Population & Housing Census', *Ghana Statistical Service*, Accra, Ghana. Retrieved from https://www2.statsghana.gov.gh/docfiles/2010_District_Report/Western/NZEMA%20EAST.pdf
- GSS (Ghana Statistical Service) (2015) 'Ghana Poverty Mapping Report', *Ghana Statistical Service*, Accra, Ghana.
- GSS (Ghana Statistical Service) (2018) Ghana Living Standards Survey Round 7 (GLSS7): Poverty Profile in Ghana (2005– 2017). *Ghana Statistical Service*, Accra, Ghana.
- GSS (Ghana Statistical Service) (2021a) 'Ghana 2021 Population and Housing Census General Report: Economic Activity (Volume 3E)'. Retrieved from

https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/2021%20PHC%20General%20Report%20Vol%203E_Economic%20Activity.pdf

- GSS (Ghana Statistical Service) (2021b) ‘Ghana 2021 Population and Housing Census General Report: Literacy and Education (Volume 3D)’. Retrieved from https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/2021%20PHC%20General%20Report%20Vol%203D_Literacy%20and%20Education.pdf
- GSS (Ghana Statistical Service) (2021c) ‘Provisional results from the 2021 Population and Housing Census (PHC)’, *Ghana Statistical Service*, Accra, Ghana
- Gylfason, T. (2001) ‘Natural Resources and Economic Growth: What is the connection?’ *CESifo Working Paper No. 530*.
- Haggard, S. (2015) ‘The developmental state is dead: Long live the developmental state’, *Advances in Comparative-Historical Analysis* 39-66.
- Haraway, D. (1991) *Simians Cyborgs and Women: The Reinvention of Nature*, New York: Routledge.
- Harriss-White, B. (2006) ‘Poverty and capitalism’, *Economic and Political Weekly*, 1241-1246.
- Hart, M. (2013) *Gold: The Race for the World’s Most Seductive Metal*, London: Simon and Shuster.
- Haslam, P. A. (2016) ‘Overcoming the Resource Curse: Reform and the Rentier State in Chile and Argentina, 1973–2000’, *Development and Change* 47(5): 1146–1170. DOI: 10.1111/dech.12259
- Hatcher, P. (2004) ‘Mali: Rewriting the Mining Code or Redefining the Role of the State?’ In Campbell, B. K. (Ed.) *Regulating mining in Africa: for whose benefit?*, Discussion Paper 26, Nordic Africa Institute, 39-52. Retrieved from <https://ceim.uqam.ca/db/IMG/pdf/Manuscrit-Eng-2004.pdf>
- Haufler, V. (2010) ‘Disclosure as governance: The extractive industries transparency initiative and resource management in the developing World’, *Global Environmental Politics*, 10(3), 53-73.
- Hausermann, H., Ferring, D., Atosona, B., Mentz, G., Amankwah, R., Chang, A., Hartfield, K., Effah, E., Asuamah, G. A., Mansell, C. & Sastri, N. (2018) ‘Land-grabbing, land-use transformation and social differentiation: Deconstructing “small-scale” in Ghana's recent gold rush’, *World Development*, 108, 103-114.

- Hay, I. (2010) 'Ethical Practice in Geographical Research', In, N. Clifford, S. French, and Valentine, G. (eds.). *Key Methods in Geography*, London: Sage Publications Ltd, 35-48.
- Hentschel, T., Hruschka, F., & Priester, M. (2002) 'Global Report on Artisanal and Small-scale Mining', Report commissioned by the *Mining, Minerals and Sustainable Development of the International Institute for Environment and Development (IIED)*. Retrieved from <https://www.iied.org/sites/default/files/pdfs/migrate/G00723.pdf>
- Hilson, G. & Maconachie, R. (2009) 'Good governance and the extractive industries in sub-Saharan Africa', *Mineral Processing and Extractive Metallurgy Review*, 30, 52-100
- Hilson, G. & Potter, C. (2005) 'Structural Adjustment and subsistence industry: Artisanal gold mining in Ghana', *Development and Change* 36(1), 103-131.
- Hilson, G. (2002a) 'A contextual review of the Ghanaian small-scale mining industry', *Mining, Minerals and Sustainable Development Working Paper No. 76*.
- Hilson, G. (2002b) 'Harvesting mineral riches: 1000 years of gold mining in Ghana', *Resources Policy* 28, 13-26.
- Hilson, G. (2009) 'Small-scale Mining, Poverty and Economic Development in sub-Saharan Africa: An Overview', *Resources Policy*, 34(1-2), 1-5.
- Hilson, G. (2010) 'Once a miner, always a miner' Poverty and livelihood diversification in Akwatia, Ghana', *Journal of Rural Studies*, 26(3), 296-307.
- Hilson, G. (2012a) 'Corporate Social Responsibility in the extractive industries: Experiences from developing countries', *Resources Policy* 37, 131-137.
- Hilson, G. (2012b) 'Poverty traps in small-scale mining communities: The case of sub-Saharan Africa', *Canadian Journal of Development Studies*, 33(2), 180-197.
- Hilson, G. (2016) 'Farming, small-scale mining and rural livelihoods in Sub-Saharan Africa: A critical overview', *The Extractive Industries and Society* 3(2), 547-563.
- Hilson, G. (2017) 'Shootings and burning excavators: Some rapid reflections on the Government of Ghana's handling of the informal Galamsey mining 'menace'', *Resources Policy*, 54, 109-116
- Hilson, G. (2019) 'Why is there a large-scale mining 'bias' in sub-Saharan Africa?,' *Land Use Policy*, 81, 852-861.

- Hilson, G., & Banchirigah, S. M. (2009) 'Are alternative livelihood projects alleviating poverty in mining communities Experiences from Ghana', *The Journal of Development Studies*, 45(2), 172-196.
- Hilson, G., & Garforth, C. (2012) 'Agricultural poverty' and the expansion of artisanal mining in Sub-Saharan Africa experiences from Southwest Mali and Southeast Ghana', *Population Research and Policy Review*, 31(3), 435-464.
- Hilson, G., & Garforth, C. (2013) 'Everyone now is concentrating on the mining: drivers and implications of rural economic transition in the eastern region of Ghana' *The Journal of Development Studies* 49(3), 348-364.
- Hilson, G., & Maconachie, R. (2010) 'The extractive industries transparency initiative: panacea or white elephant for sub-Saharan Africa?' In Richards, J. (Ed.), *Mining, Society, and a Sustainable World*, New York NY: Springer Publishers, 469–491.
- Hilson, G., & Maconachie, R. (2020) 'For the environment: an assessment of recent military intervention in informal gold mining communities in Ghana', *Land use policy*, 96, 104706.
- Hilson, G., & McQuilken, J. (2014) 'Four decades of support for artisanal and small-scale mining in sub-Saharan Africa: a critical review', *The Extractive Industries and Society* 1(1), 104-118.
- Hilson, G., & Osei, L. (2014) 'Tackling youth unemployment in sub-Saharan Africa: Is there a role for artisanal and small-scale mining?', *Futures*, 62, 83-94.
- Hilson, G., & Pardie, S. (2006) 'Mercury: An agent of poverty in Ghana's small-scale gold-mining sector?', *Resources Policy*, 31(2), 106-116.
- Hilson, G., Amankwah, R., & Ofori-Sarpong, G. (2013) 'Going for gold: transitional livelihoods in Northern Ghana', *The Journal of Modern African Studies* 51(1), 109-137.
- Hilson, G., Bartels, E., & Hu, Y. (2022). Brick by brick, block by block: Building a sustainable formalization strategy for small-scale gold mining in Ghana. *Environmental Science & Policy*, 135, 207-225.
- Hilson, G., Hilson, A., & Adu-Darko, E. (2014) 'Chinese participation in Ghana's informal gold mining economy: Drivers, implications and clarifications', *Journal of Rural Studies* 34, 292–303.
- Hilson, G., Hilson, A., Maconachie, R., McQuilken, J., & Goumandakoye, H. (2017) 'Artisanal and small-scale mining (ASM) in sub-Saharan Africa: Re-conceptualizing formalization and 'illegal' activity', *Geoforum* 83, 80-90.

- Hilson, G., Hilson, C. J., & Pardie, S. (2007) 'Improving awareness of mercury pollution in small-scale gold mining communities: Challenges and ways forward in rural Ghana', *Environmental Research* 103, 275-287.
- Hilson, G., Sauerwein, T., & Owen, J. (2020) 'Large and Artisanal Scale Mine Development: The Case for Autonomous Co-Existence', *World Development*, 130, 104919.
- Hirsch, E. (2017) 'Investment's rituals: "Grassroots" extractivism and the making of an indigenous gold mine in the Peruvian Andes', *Geoforum*, 82, 259-267.
- Hodler, R. (2006) 'The curse of natural resources in fractionalized countries', *European Economic Review* 50, 1367-1386.
- Hoek, M. (2020) 'CSR v CSV: The Difference and Why It Matters', Retrieved from <https://sustainablebrands.com/read/business-case/csr-v-csv-the-difference-and-why-it-matters>
- Holt, A. (2010) 'Using the Telephone for Narrative Interviewing: A Research Note', *Qualitative Research*, 10(1), 113-121
- Howell, J., & Pearce, J. (2001) *Civil Society & Development: A Critical Exploration*, Lynne Rienner Publishers.
- Humphreys, M., Sachs, J. D., & Stiglitz, J. E. (eds.) (2007) *Escaping the resource curse*, New York: Columbia University Press.
- Hutchful, E. (2002) *Ghana's Adjustment Experience: The Paradox of Reform*. Geneva: UNRISD
- Idemudia, U. (2009) 'Oil extraction and poverty reduction in the Niger Delta: A critical examination of partnership initiatives', *Journal of Business Ethics*, 90, 91-116.
- Idemudia, U. (2013) 'The Extractive Industry Transparency Initiative and corruption in Nigeria: Rethinking the links between transparency and accountability', In Diallo, F., & Calland, R. (Eds.), *Access to Information in Africa: Law, Culture and Practice*, Leiden/Boston: Brill, 127-148.
- International Labour Organization (ILO) (2021) *Women in mining: Towards gender equality*, Geneva: International Labour Organization. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_821061.pdf
- Jenkins, E. K., Slemmon, A., Haines-Saah, R. J., & Oliffe, J. (2018) 'A guide to multisite qualitative analysis', *Qualitative Health Research*, 28(12), 1969-1977.

- Jensen, R. R. & Shumway, J. M. (2010) 'Sampling Our World', In, B. Gomez, & Jones III, J. P. (eds.) *Research Methods in Geography: A Critical Introduction* (Vol. 6), John Wiley & Sons, 77-90.
- Johnson, D. (2020) 'Supply Chain Analysis of the ASM sector in Ghana- A focus of Mines supported by Solidaridad – Final Report'. Retrieved from <https://www.solidaridadnetwork.org/wp-content/uploads/2021/05/ASM-Supply-Chain-Report.pdf>
- Johnson, M. F. (2019) 'Strong (green) institutions in weak states: Environmental governance and human (in) security in the Global South', *World Development*, 122, 433-445.
- Johnson, M. F., Laurent, R. L., & Kwao, B. (2020) 'Constructing a crisis: The effect of resource curse discourse on extractive governance in Ghana', *The Extractive Industries and Society* 7(3), 965-974
- Johnson, N., de Klerk, Q., Yeo, W., & Roux, A. (2013) 'Technical Report and Mineral Resource and Reserve Update for the Nzema Gold Mine, Ghana, West Africa', *Endeavour Mining Corporation*, 1–173
- Jønsson J. B., & Fold, N. (2011) 'Mining 'From Below': Taking Africa's Artisanal Miners Seriously', *Geography Compass* 5(7): 479–493, 10.1111/j.1749-8198.2011.00435.x
- Kaku, D. (2021, March 15) 'Akango/Adamus clash: Evalue-Ajomoro Gwira MP calls for investigations', *GhanaWeb*. Retrieved from <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Akango-Adamus-clash-Evalue-Ajomoro-Gwira-MP-calls-for-investigations-1205212>
- Karl, T. L. (1997) *The paradox of plenty: oil booms and petro-States*, California: University of California Press
- Karl, T. L. (2007) 'Ensuring fairness: the case for a transparent fiscal social contract', In, M. Humphreys, J. D. Sachs, and J. E. Stiglitz (eds.), *Escaping the resource curse*, New York: Columbia University Press, 256-285.
- Keough, S. B. (2015) 'Planning for growth in a natural resource boomtown: challenges for urban planners in Fort McMurray, Alberta', *Urban Geography*, 36(8), 1169-1196
- Kidido, J. K., Ayitey, J. Z., Kuusaana, E. D., & Gavu, E. K. (2015) 'Who is the rightful recipient of mining compensation for land use deprivation in Ghana?' *Resources Policy*, 43, 19-27.
- Kim, D. H., & Lin, S. C. (2017) 'Natural resources and economic development: new panel evidence', *Environmental and Resource Economics*, 66(2), 363-391.

- Kippenberg, J. (2017, March 29) 'Ghana Ratifies Mercury Convention: Toxic Metal Used in Small-Scale Gold Mining Especially Harmful to Children', *Human Rights Watch*. Retrieved May 10th 2022 from <https://www.hrw.org/news/2017/03/29/ghana-ratifies-mercury-convention>
- Kolstad, I. & Wiig, A. (2009) 'It's the rents, stupid! The political economy of the resource curse', *Energy Policy* 37, 5317-5325
- Kopiński, D., Polus, A., & Tycholiz, W. (2013) 'Resource curse or resource disease? Oil in Ghana', *African Affairs*, 112(449), 583-601.
- Kotsadam, A., & Tolonen, A. (2016) 'African mining, gender, and local employment', *World Development*, 83, 325-339.
- Kumah, C., Hilson, G., & Quaicoe, I. (2020) 'Poverty, adaptation and vulnerability: An assessment of women's work in Ghana's artisanal gold mining sector', *Area*, 52(3), 617-625.
- Kumar, R. (2011) *Research methodology: A step-by-step guide for beginners*, London: Sage Publication.
- Kusimi, J. M., Amisigo, B. A., & Banoeng-Yakubo, B. K. (2014) 'Sediment yield of a forest river basin in Ghana', *Catena*, 123, 225-235.
- Kwarteng, A. A. C., Iyer-Raniga, U., & Guillermo, A. M. (2018) 'Transport and Accessibility Challenges Facing the Rural People Living Along Feeder Roads in Ghana', *Civil Engineering and Architecture*, 6(5), 257-267.
- Labonne, B. (2002) 'Commentary: Harnessing mining for poverty reduction, especially in Africa. In *Natural Resources Forum*, Oxford, UK and Boston, USA: Blackwell Publishing Ltd, 69-73.
- Lain, J. & Vishwanath, T. (2021, January 7) 'Tackling poverty in multiple dimensions: A proving ground in Nigeria?' *World Bank Blogs*. Retrieved from https://blogs.worldbank.org/opendata/tackling-poverty-multiple-dimensions-proving-ground-nigeria#_ftn4
- Larnyoh, M. T. (2018, May 23) 'Oil is Ghana's second largest export earner – BoG report', *Pulse*. Retrieved from <https://www.pulse.com.gh/news/business/oil-in-ghana-oil-is-ghanas-second-largest-export-earner-bog-report/x6nv56s>
- Larsen, M.N., Yankson, P., & Fold, N., (2009) 'Does Foreign Direct Investment (FDI) Create Linkages in Mining? The Case of Gold Mining in Ghana', In, Sumner, A., Sanchez-Ancochea, D., & Rugraff, E. (Eds.), *Transnational Corporations and Development Policy: Critical Perspectives* (pp. 247–273). London: Palgrave Macmillan.

- Lawer, E. T., Lukas, M. C., & Jørgensen, S. H. (2017) 'The neglected role of local institutions in the 'resource curse' debate. Limestone mining in the Krobo region of Ghana', *Resources Policy*, 54, 43-52.
- Le Billon, P., & Duffy, R. (2018) 'Conflict ecologies: Connecting political ecology and peace and conflict studies', *Journal of Political Ecology* 25(1), 239–260.
- Lechuga, V. M. (2012) 'Exploring culture from a distance: The utility of telephone interviews in qualitative research', *International Journal of Qualitative Studies in Education*, 25(3), 251-268.
- Leotaud, V. R. (2018, January 4) 'Endeavour sells its mine in Ghana', Retrieved from <https://www.mining.com/endeavour-sells-mine-ghana/>
- Libman, A. (2010) 'Subnational resource curse: do economic or political institutions matter?' *Frankfurt School Working Paper No. 154*.
- Longhurst, R. (2010) 'Semi-Structured Interviews and Focus Groups', In, Clifford, N., French, S. and Valentine, G. (eds.) *Key Methods in Geography*, London: Sage Publications Ltd, 103- 115
- Lujala, P., & Narh, J. (2020) 'Ghana's Minerals Development Fund Act: addressing the needs of mining communities', *Journal of Energy & Natural Resources Law*, 38(2), 183-200.
- Lund, C. (2006) 'Twilight Institutions: An Introduction', *Development and Change* 37(4), 673-684
- Luong, P. J., & Weinthal, E. (2010) *Oil is not a Curse: Ownership Structure and Institutions in Soviet Successor States*, Cambridge: Cambridge University Press.
- Malden, A. & Osei, E. (2018) 'Ghana's Gold Mining Revenues: An Analysis of Company Disclosures', *Natural Resource Governance Institute Briefing*.
- Malena, C., Forster, R., & Singh, J. (2004) *Social accountability: An introduction to the concept and emerging practice* (No. 31042), World Bank, Social Development Papers – Participation and Civic Engagement, No. 76 (December).
- Mamdani, M. (1996) *Citizens and Subjects: Contemporary African and the Legacy of Late Colonialism*, Princeton, NJ: Princeton University Press.
- Mantey, J., Nyarko, K. B., Owusu-Nimo, F., Awua, K. A., Bempah, C. K., Amankwah, R. K., ... & Appiah-Effah, E. (2020) 'Mercury contamination of soil and water media from different illegal artisanal small-scale gold mining operations (galamsey)', *Heliyon*, 6(6), e04312.

- Mantey, J., Owusu-Nimo, F., Nyarko, K. B., & Aubynn, A. (2017) 'Operational dynamics of "Galamsey" within eleven selected districts of western region of Ghana', *Journal of Mining and Environment* 8(1), 11-34.
- Manzano, O., & Gutiérrez, J. D. (2019) 'The subnational resource curse: Theory and Evidence', *The Extractive Industries and Society*, 6(2), 261-266.
- Massey, D. (2005) *For Space*. London: Sage.
- Matten, D., & Moon, J. (2008) "'Implicit" and "explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility', *Academy of Management Review*, 33(2), 404-424.
- May, T., & Perry, B. (2014) 'Reflexivity and the practice of qualitative research', In, Flick, U. (ed.) *The SAGE Handbook of Qualitative Data Analysis*, Los Angeles: Sage publications, 109-122.
- McCulloch, G. (2011) 'Historical and documentary research in education', In, L. Cohen, L. Manion, & Morrison, K. (eds.) *Research Methods in Education*, Routledge, 272-279.
- McDowell, L. (2010) 'Interviewing: Fear and liking in the field', In, D. DeLyser, S. Herbert, S. C. Aitken, M. Crang and McDowell, L. (eds.) *Sage Handbook of Qualitative Geography*, Thousand Oaks, CA: Sage Publication, 156-171.
- McGuirk, E. F. (2013) 'The illusory leader: natural resources, taxation and accountability', *Public Choice* 154(3-4), 285-313.
- McGuirk, P. M., & O'Neill, P. (2010) 'Using Questionnaires in Qualitative Human Geography', In, I Hay (ed.) *Qualitative Research Methods in Human Geography*, Canada: Oxford University Press, 191-216.
- McLafferty, S. L. (2010) 'Conducting Questionnaire Surveys', In, N. Clifford, S. French and Valentine, G. (eds.) *Key Methods in Geography* (2nd edition), Thousand Oaks, CA: Sage Publications Ltd, 77-88.
- McQuilken, J. & Hilson, G. (2016) 'Artisanal and small-scale gold mining in Ghana: Evidence to inform an action dialogue', *International Institute for Environment and Development- IIED*, London.
- Mealer, M. & Jones, J. (2014) 'Methodological and Ethical Issues Related to Qualitative Telephone Interviews on Sensitive Topics', *Nurse Researcher*, 21(4), 32-37
- Mehlum, H., Moene, K. & Torvik, R. (2006) 'Cursed by Resources or Institutions?', *The World Economy* 29(8), 1117-1131.

- Melia, E. (2015, October) 'The Political Economy of Extractive Resources', *Sector Project Sustainable Economic Development*, GIZ.
- Mensah, S. O., Amoako-Arhen, A., and Okyere, S. A. (2014) 'Goldfields Ghana Limited, Tarkwa Mines and Community Infrastructure Development in the Tarkwa Nsuaem Municipality of Ghana', *Journal of Studies in Social Sciences* 6(2), 68-99.
- Mideksa, T. K. (2013) 'The Economic Impact of Natural Resources', *Journal of Environmental Economics and Management* 65, 277–289.
- Minerals Commission (2021) 'Small-scale and Community Mining: Operational Manual'. Retrieved May 3rd 2022 from <https://www.mincom.gov.gh/wp-content/uploads/2021/11/Small-Scale-and-Community-Mining-Operational-Manual-Sep.-2021-1.pdf>
- Ministry of Lands and Forestry (2003) *Emerging Land Tenure Issues*, Accra, Ghana. Retrieved from http://www.hubrural.org/IMG/pdf/cilss_praia9_ghana_rapport_national.pdf
- Mogalakwe, M. (2009) 'The Documentary Research Method—using Documentary Sources in Social Research', *Eastern Africa Social Science Research Review*, 25(1), 43-58.
- Mohammed, K., Batung, E., Kansanga, M., Nyantakyi-Frimpong, H., & Luginaah, I. (2021) 'Livelihood diversification strategies and resilience to climate change in semi-arid northern Ghana', *Climatic Change*, 164(3), 1-23.
- Moore, M. (2001) 'Political Underdevelopment: What Causes Bad Governance?', *Public Management Review* 1(3), 385-418.
- Murphy, S. P. (2022) 'The relationship between poverty and prosperity a feminist relational account', *Journal of Global Ethics*, 18(1), 82-99.
- Murray, W. E. (2009) 'Neoliberalism and Development', In, R. Kitchin, and N. Thrift (eds.) *International Encyclopedia of Human Geography*, Elsevier, 379-384.
- Murshed, S. M. (2018) *The Resource Curse*, Newcastle: Agenda Publishing
- Neely, A. H., & Nguse, T. (2015) 'Relationships and Research Methods: Entanglements, intra-actions, and diffraction'. In, T. Perreault, G. Bridge, & McCarthy, J. (eds.) *The Routledge handbook of political ecology*, London & New York: Routledge, 140-149.
- Negi, R. (2011) 'The micropolitics of mining and development in Zambia: Insights from the Northwestern Province', *African Studies Quarterly*, 12(2), 27.
- Neuman, W. L. (2014) *Social Research Methods: Qualitative and Quantitative Approaches* (7th edition), London: Pearson Education Limited

- Ngnenbe, T. (2021, November 22) 'No withholding tax on gold export from January 2022 – Minister', *Graphic Online*. Retrieved from <https://www.graphic.com.gh/news/general-news/no-withholding-tax-on-gold-export-from-january-2022-minister.html>
- Njoku, E. C. A. (2021, August 18) 'Golden Star Resources hints at exports from oil palm plantation', *B&FT Online*. Retrieved from <https://thebftonline.com/2021/08/18/golden-star-resources-hints-at-exports-from-oil-palm-plantation/>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017) 'Thematic analysis: Striving to meet the trustworthiness criteria', *International Journal of Qualitative Methods*, 16(1), 1-13.
- Nülle, G. M., & Davis, G. A. (2018) 'Neither Dutch nor disease? —natural resource booms in theory and empirics', *Mineral Economics* 31(1-2), 35-59.
- Nwete, B. (2007) 'Corporate social responsibility and transparency in the development of energy and mining projects in emerging markets; Is soft law the answer?,' *German Law Journal*, 8(4), 311-339.
- Nyame, F. K. & Blocher, J. (2010) 'Influence of land tenure practices on artisanal mining activity in Ghana', *Resources Policy*, 35: 47-53
- Obi, C. (2010) 'Oil as the 'Curse 'of Conflict in Africa: Peering Through the Smoke and Mirrors', *Review of African Political Economy* 37(126), 483–495.
- Okoh, G. A. (2014) 'Grievance and conflict in Ghana's gold mining industry: The case of Obuasi,' *Futures*, 62, 51-57.
- Okpanachi, E., & Andrews, N. (2012) 'Preventing the oil "resource curse" in Ghana: Lessons from Nigeria', *World Futures* 68(6), 430-450.
- Oltmann, S. (2016) 'Qualitative interviews: A methodological discussion of the interviewer and respondent contexts', *Forum: Qualitative Social Research*, 17(2), 1-16
- Orleans-Boham, H., Sakyi-Addo, G. B., Tahiru, A., & Amankwah, R. K. (2020) 'Women in artisanal mining: Reflections on the impacts of a ban on operations in Ghana', *The Extractive Industries and Society*, 7(2), 583-586.
- Osman, N., Afele, J. T., Nimo, E., Gorleku, D. O., Ofori, L. A., & Abunyewa, A. A. (2022) 'Assessing the Impact of Illegal Small-Scale Mining (Galamsey) on Cocoa Farming and Farmer Livelihood: A Case Study in the Amansie West District of Ghana', *Pelita Perkebunan (a Coffee and Cocoa Research Journal)*, 38(1), 70-82
- Ovadia, J. S. (2016) 'Local content policies and petro-development in Sub-Saharan Africa: A comparative analysis', *Resources Policy*, 49, 20-30.

- Owen, J. R., & Kemp, D. (2015) 'Mining-induced displacement and resettlement: a critical appraisal', *Journal of Cleaner Production*, 87, 478-488.
- Owusu, B. (2018) 'Doomed by the 'Resource Curse? Fish and Oil Conflicts in the Western Gulf of Guinea, Ghana' *Development* 61, 149–159 <https://doi.org/10.1057/s41301-018-0189-y>
- Owusu-Nimo, F., Mantey, J., Nyarko, K. B., Appiah-Effah, E., & Aubynn, A. (2018) 'Spatial distribution patterns of illegal artisanal small scale gold mining (Galamsey) operations in Ghana: A focus on the Western Region', *Heliyon*, 4(2), e00534.
- Paler, L. (2011) 'The subnational resource curse: Causes, consequences and prescriptions', *Open Society Institute Local Government and Public Service Reform Initiative (LGI)*. New York, NY: Revenue Watch Institute.
- Panford, K. (2015) 'The academy and the successful management of Ghana's petroleum resources', *Africa Today*, 61(2), 79-107.
- Panford, K. (2017) *Africa's Natural Resources and Underdevelopment: How Ghana's Petroleum Can Create Sustainable Economic Prosperity*, New York: Palgrave Macmillan
- Papyrakis, E. (2017) 'The resource curse-what have we learned from two decades of intensive research: Introduction to the special issue', *The Journal of Development Studies*, 53(2), 175-185.
- Parker, R. & Cox, S. (2020) 'The state and the extractive industries in Australia Growth for whose benefit', *The Extractive Industries and Society*, 7(2), 621-627
- Peet, R., & Hartwick, E. (2009) *Theories of development: Contentions, arguments, alternatives*. New York & London: Guilford Publications.
- Pegg, S. (2006) 'Mining and poverty reduction: Transforming rhetoric into reality', *Journal of Cleaner Production* 35(3-4), 183-193.
- Pein, R. (2018) 'The Fight against Galamsey: How Ghana's Ban on Small-scale Mining Has Discriminated Against Legal Small-scale Mining Activities', *Mineral Law in Africa*, University of Cape Town. Retrieved May 24, 2022 <http://www.mlia.uct.ac.za/news/fight-against-galamsey-how-ghana%E2%80%99s-ban-small-scale-mining-has-discriminated-against-legal-small>
- Peluso, N. L., & Lund, C. (2011) 'New frontiers of land control Introduction', *Journal of Peasant Studies* 38(4), 667-681

- Pérez, C., & Claveria, O. (2020) 'Natural resources and human development: Evidence from mineral-dependent African countries using exploratory graphical analysis', *Resources Policy* 65(101535), 1-10.
- Perry, M., & Rowe, J. E. (2015) 'Fly-in, fly-out, drive-in, drive-out: The Australian mining boom and its impacts on the local economy', *Local Economy*, 30(1), 139-148.
- Phillips, J., Hailwood, E., & Brooks, A. (2016) 'Sovereignty, the 'resource curse' and the limits of good governance: a political economy of oil in Ghana', *Review of African Political Economy* 43(147), 26-42.
- Pimentel, D. (2011) 'Legal pluralism in post-colonial Africa: linking statutory and customary adjudication in Mozambique', *Yale Human Rights & Development Law Journal*, 14, 59-104
- Poncian, J. (2019) 'Extractive resource ownership and the subnational resource curse: Insights from Tanzania', *The Extractive Industries and Society*, 6(2), 332-342.
- Porter, M. & Kramer, M. (2011) 'The Big Idea: Creating Shared Value. How to Reinvent Capitalism—and Unleash a Wave of Innovation and Growth', *Harvard Business Review* 89, 62-77.
- Potter, R. B., Binns, T., Elliott, J. A., Nel, E., & Smith, D. W. (2018) *Geographies of development: An introduction to development studies (4th Edition)*. London & New York: Routledge.
- Probst, B. & Berenson, L. (2014) 'The double arrow: How qualitative social work researchers use reflexivity', *Qualitative Social Work*, 13(6), 813-827
doi:10.1177/1473325013506248
- Purwins, S. (2020) 'Bauxite mining at Atewa Forest Reserve, Ghana: A political ecology of a conservation-exploitation conflict', *GeoJournal*, 1-13.
- Ramdoe, I. (2015) 'Resource-based industrialisation in Africa: Optimising linkages and value chains in the extractive sector', *European Centre for Development Policy Management*, Brussels, Discussion Paper No 179.
- Republic of Ghana (1992) *Constitution of the Republic of Ghana, 1992*, Parliament of Ghana.
- Republic of Ghana (2006) *Minerals and Mining Law, Act 703, March 2006*, Parliament of Ghana. Retrieved from
<https://resourcegovernance.org/sites/default/files/Minerals%20and%20Mining%20Act%20703%20Ghana.pdf>

- Republic of Ghana (2012). *Minerals and Mining (Licensing) Regulations, 2012 (L.I. 2176)*. Retrieved from [https://www.bcp.gov.gh/acc/registry/docs/MINERALS%20AND%20MINING%20\(LI%20CENSING\)%20REGULATIONS,%202012%20\(L.I.%202176\)-MM.pdf](https://www.bcp.gov.gh/acc/registry/docs/MINERALS%20AND%20MINING%20(LI%20CENSING)%20REGULATIONS,%202012%20(L.I.%202176)-MM.pdf)
- Republic of Ghana (2016) *Minerals Development Fund Act 912, March 2016*. Parliament of Ghana. Retrieved from <http://mlnr.gov.gh/wp-content/uploads/2019/06/Mineral-Development-Fund-Act-2016-Act-912-1.pdf>
- Republic of Ghana (2020) *Minerals and Mining (Local Content and Local Participation) Regulations, 2020 (L.I. 2431)*. Retrieved from <https://www.resourcedata.org/b1375903-9424-4027-9f31-419eb10679df>
- Resnick, D. (2019) 'Strong Democracy, Weak State: The Political Economy of Ghana's Stalled Structural Transformation', In X. Diao, P. Hazell, S. Kolavalli, & D. Resnick (Eds), *Ghana's economic and agricultural transformation: Past performance and future prospects* (pp. 49-95). Oxford: Oxford University Press.
- Ribot, J. C., & Peluso, N. L. (2003) 'A theory of access', *Rural sociology*, 68(2), 153-181
- Rice, S. (2010) 'Sampling in Geography', In, N. Clifford, S. French, and Valentine, G. (eds.) *Key Methods in Geography*, London: Sage Publications Ltd, 230- 252.
- Ross, M. L. (2007) 'How Mineral-Rich States can reduce inequality', In, M. Humphreys, J. D. Sachs, and J. E. Stiglitz. (Eds). *Escaping the resource curse*. New York: Columbia University Press, 237-255.
- Ross, M. L. (2012) *The Oil Curse: how petroleum wealth shapes the development of nations*, Princeton: Princeton University Press
- Ross, M. L. (2013) 'The Politics of the Resource Curse: a review', In, C. Lancaster and van de Walle, N. (eds.) *The handbook on the politics of development*, Oxford: Oxford University Press, 1-29.
- Ross, M. L. (2015) 'What have we learned about the Resource Curse?', *Annual Review of Political Science* 18, 239-259.
- Rosser, A. (2006) 'The Political Economy of the Resource Curse: A literature survey', *Institute of Development Studies (IDS) Working Paper No. 268*. University of Sussex.
- Roxburgh, C. (2010) *Lions on the move: The progress and potential of African economies*, London, Washington, DC: McKinsey and Company
- Sachs, J. D. & Warner, A. M. (1995) 'Natural Resource Abundance and Economic Growth', *National Bureau of Economic Research Working Paper 5398*

- Sachs, J. D. & Warner, A. M. (2001) 'The Curse of Natural Resources', *European Economic Review* 45, 827-838
- Sachs, J. D. (2007) 'How to handle the Macroeconomics of Oil Wealth', In, M. Humphreys, J. D. Sachs, and J. E. Stiglitz (eds.) *Escaping the Resource Curse*, New York: Columbia University Press, 173-193.
- Sagebien, J., & Lindsay, N. (Eds.) (2011) *Governance ecosystems: CSR in the Latin American mining sector*. Springer.
- Sarfo-Mensah, P., Haruna, M. and Amaning, T. K (2020) 'Effects of Artisanal Small-Scale Mining on Household Food Availability and Access in the Amansie West District of Ghana', *SSRG International Journal of Agriculture & Environmental Science* 7(3), 1-8
- Sarpong, G. A. (2006) 'Towards the improvement of tenure security for the poor in Ghana: some thoughts and observations', *Legal Empowerment of the Poor (LEP) Working Paper # 2*, Workshop for Sub-Saharan Africa
- Sarrasin, B. (2004) 'Madagascar: A Mining Industry Caught Between Environment and Development', In Campbell, B. K. (Ed.) *Regulating mining in Africa: for whose benefit?*, Discussion Paper 26, Nordic Africa Institute, 53-66. Retrieved from <https://ceim.uqam.ca/db/IMG/pdf/Manuscrit-Eng-2004.pdf>
- Schutt, R. K. (2012) *Investigating the social world: The process and practice of research* (7th edition), Los Angeles: Sage Publications.
- Schwartz, F. W., Lee, S., & Darrah, T. H. (2021) 'A review of the scope of artisanal and small-scale mining worldwide, poverty, and the associated health impacts', *GeoHealth*, 5(1), e2020GH000325.
- Shaban, A. R. A. (2018, December 27) 'Ghana referendum vote towards creation of six new regions', *Africanews*. Retrieved from <https://www.africanews.com/2018/12/27/ghana-referendum-for-creation-of-six-new-regions-underway//>
- Sharma, D., Vijayabaskarb, M., Menonb, A. & Arora, S. (2020) 'Relational approaches to poverty in rural India social ecological and technical dynamics', *Contemporary South Asia*, DOI: 10.1080/09584935.2020.1785394
- Siakwah, P. (2017a) 'Are natural resource windfalls a blessing or a curse in democratic settings? Globalised assemblages and the problematic impacts of oil on Ghana's development', *Resources Policy*, 52, 122-133.

- Siakwah, P. (2017b) 'Political economy of the resource curse in Africa revisited: the curse as a product and a function of globalised hydrocarbon assemblage', *Development and Society* 46(1), 83-112.
- Siakwah, P. (2018) 'Actors, networks, and globalised assemblages: Rethinking oil, the environment and conflict in Ghana', *Energy Research and Social Science* 38, 68-76.
- Siegel, S., & Veiga, M. M. (2010) 'The myth of alternative livelihoods: artisanal mining, gold and poverty' *International Journal of Environment and Pollution* 41(3-4), 272-288.
- Silverman, D. (2013) *Doing Qualitative Research* (4th edition), Los Angeles: Sage Publications.
- Silverman, D. (2015) *Interpreting Qualitative Data*, Los Angeles Sage Publications.
- Singh, K. (2007) *Quantitative social research methods*, New Delhi: Sage Publications.
- Slack, K. (2012). 'Mission impossible?: Adopting a CSR-based business model for extractive industries in developing countries', *Resources Policy* 37(2), 179-184.
- Soares de Oliveira, R. (2007) *Oil and Politics in the Gulf of Guinea*, London: Hurst and Company.
- Southall, R. & Comminos, A. (2009) 'The Scramble for Africa and the Marginalisation of African Capitalism', In, R. Southall and H. Melber (eds.) *A new scramble for Africa?: imperialism, investment and development*, Scottsville: University of KwaZulu-Natal Press, 357-385.
- Sovacool, B. K. (2020) 'Is Sunshine the Best Disinfectant? Evaluating the Global Effectiveness of the Extractive Industries Transparency Initiative (EITI)', *The Extractive Industries and Society* 7 (4), 1451–1471. <https://doi.org/10.1016/j.exis.2020.09.001>.
- Spiegel, S. J. (2012) 'Microfinance services, poverty and artisanal mineworkers in Africa: In search of measures for empowering vulnerable groups', *Journal of International Development* 24(4), 485-517.
- Standing, A. (2014) 'Ghana's extractive industries and community benefit sharing: The case for cash transfers', *Resources Policy* 40, 74–82.
- Standing, A., & Hilson, G. (2013) 'Distributing mining wealth to communities in Ghana Addressing problems of elite capture and political corruption', *U4 Issue*.
- Stevens, P., Lahn, G., & Kooroshy, J. (2015) 'The resource curse revisited', *Chatham House for the Royal Institute of International Affairs*.

- Stockemer, D. (2019) *Quantitative methods for the social sciences: A Practical Introduction with Examples in SPSS and Stata*, Springer International Publishing.
- Storey, K. (2010) 'Fly-in/Fly-out: Implications for Community Sustainability', *Sustainability*, 2, 1161-1181.
- Sultana, F. (2007) 'Reflexivity, positionality and participatory ethics: Negotiating fieldwork dilemmas in international research'. *ACME: An International E-Journal for Critical Geographies*, 6, 374–385.
- Swenson, G. (2018) 'Legal Pluralism in Theory and Practice', *International Studies Review*, 20(3), 438-462.
- Telmer, K. H., & Veiga, M. M. (2009) 'World Emissions of Mercury from Artisanal and Small-Scale Gold Mining', In, R. Mason, & N. Pirrone (eds.). *Mercury fate and transport in the global atmosphere: Emissions, measurements and models*, New York: Springer, 131-172.
- Tenkorang, E. Y., & Osei-Kufuor, P. (2013) 'The impact of gold mining on local Farming Communities in Ghana', *Journal of Global Initiatives: Policy, Pedagogy, Perspective*, 8(1), 25-44.
- Terminski, B. (2012) *Mining-induced Displacement and Resettlement: Social Problem and Human Rights Issue*, Genf, 2012; URN: <http://nbn-resolving.de/urn:nbn:de:0168-ssoar-327774>
- Tesfaye, Y., Roos, A., Campbell, B. M., & Bohlin, F. (2011) 'Livelihood strategies and the role of forest income in participatory-managed forests of Dodola area in the bale highlands, southern Ethiopia', *Forest Policy and Economics*, 13(4), 258-265.
- Teye, J.K. (2012) 'Benefits, challenges and dynamism of positionalities associated with Mixed Methods Research in Developing Countries: Evidence from Ghana', *International Journal of Mixed Methods Research* 6(4), 379-391
DOI:10.1177/1558689812453332, Sage.
- The MDF Board (2020) *Guidelines for the Management of the Mining Community Development Scheme (MCDS) Funds by Local Management Committees (LMCS)*, August 2020. Retrieved from <https://mdf.gov.gh/wp-content/uploads/2021/10/guidelines-for-the-management-of-the-mining-community.pdf>
- Thrift, N. (2004) 'Intensities of feeling: Towards a spatial politics of affect', *Geografiska Annaler* 86, 57–78

- Topf, A. (2011) 'Endeavour, Adamus merge into West African gold producer' Retrieved from <https://www.mining.com/endeavour-adamus-merge-into-west-african-gold-producer/>
- Tordo, S., Warner, M., Manzano, O., & Anouti, Y. (2013) '*Local content policies in the oil and gas sector*'. Washington, DC: The World Bank.
- Tschakert, P. (2009) 'Recognizing and nurturing artisanal mining as a viable livelihood', *Resources Policy* 34(1-2), 24-31.
- Tschakert, P. (2016) 'Shifting discourses of vilification and the taming of unruly mining landscapes in Ghana', *World Development*, 86, 123-132.
- Tschakert, P. and Singha, K. (2007) 'Contaminated identities: Mercury and marginalization in Ghana's artisanal mining sector', *Geoforum* 38, 1304-1321.
- Tuokuua, F. X. D., Kpinpuob, S. D., & Hinson, R. E. (2019) 'Sustainable development in Ghana's gold mines: Clarifying the stakeholder's perspective', *Journal of Sustainable Mining* 18, 77-84
- Twerefou, D. K., Tutu, K., Owusu-Afriyie, J., & Adjei-Mantey, K. (2015) 'Attitudes of local people to mining policies and interventions', *International Growth Centre Working Paper*, Ref E-33107-GHA-1.
- United Nations (UN) (2015) *Transforming our World: The 2030 Agenda for Sustainable Development*. New York: United Nations General Assembly.
- Usman, Z. (2018) 'The "Resource Curse" and the Constraints on Reforming Nigeria's Oil Sector', In, C. Levan and P. Ukata (eds.) *The Oxford Handbook of Nigerian Politics*, Oxford: Oxford University Press, 520-544.
- Valentine, G. (2005) 'Tell me about...: using interviews as a research methodology', In R. Flowerdew, and Martin, D. (eds.), *Methods in human geography: A guide for students doing a research project* (2nd edition), Harlow: Pearson Education Limited, 110-127.
- Van Alstine, J. (2014) 'Transparency in resource governance: The pitfalls and potential of "New Oil" in Sub-Saharan Africa', *Global Environmental Politics*, 14, 20-39.
- van der Ploeg, F. & Venables, A. J. (2011) 'Natural resource wealth: the challenge of managing a windfall', *Centre for Economic Policy Research*, Discussion Paper 8694
- van der Ploeg, F. (2011) 'Natural resources: curse or blessing?' *Journal of Economic Literature* 49(2), 366-420.
- van der Ploeg, F., & Poelhekke, S. (2009) 'Volatility and the natural resource curse', *Oxford Economic Papers* 61(4), 727-760.

- van der Ploeg, F., & Poelhekke, S. (2017) 'The impact of natural resources: Survey of recent quantitative evidence', *The Journal of Development Studies* 53(2), 205-216.
- van Huellen, S. & Asante-Poku, N. A. (2021, March 14) 'How commodity exporting countries like Ghana have been hit by COVID-19', *The Conversation*. Retrieved from <https://theconversation.com/how-commodity-exporting-countries-like-ghana-have-been-hit-by-covid-19-155799>
- Verbrugge, B. & Geenen, S. (2020) *Global Gold Production Touching Ground: Expansion, Technological Innovation and Informalization*. London: Palgrave Macmillan.
- Verbrugge, B. (2014) 'Capital interests: A historical analysis of the transformation of small-scale gold mining in Compostela Valley province, Southern Philippines', *The Extractive Industries and Society*, 1(1), 86-95.
- Watts, M. (2009) 'Oil, development, and the politics of the bottom billion', *MacCalaster International* 24, 79-30.
- Watts, M. (2010) 'The rule of oil: petro-politics and the anatomy of an insurgency', *Journal of African Development* 11(2), 1-34.
- Wengraf, L. (2018) *Extracting Profit: Imperialism, Neoliberalism and the New Scramble for Africa*, Chicago: Haymarket Books.
- Werthmann, K. (2009) 'Working in a boom-town: Female perspectives on gold-mining in Burkina Faso,' *Resources Policy*, 34(1-2), 18-23.
- WFP (2009) 'Comprehensive Food Security and Vulnerability Analysis. Accra, Ghana'. Retrieved from <http://documents.wfp.org/stellent/groups/public/documents/ena/wfp201820.pdf>
- Whitfield, L. (2011) 'Competitive clientelism, easy financing and weak capitalists: the contemporary political settlement in Ghana', *Danish Institute for International Studies (DIIS)*, Working Paper 2011, 27.
- Whitfield, L. (2018) *Economies after colonialism: Ghana and the struggle for power*, Cambridge: Cambridge University Press.
- Wiens, D. (2014) 'Natural resources and institutional development', *Journal of Theoretical Politics*, 26(2), 197-221.
- Williams, G. (2009) 'Governance, Good', In, R. Kitchin, and N. Thrift (eds.) *International Encyclopedia of Human Geography*, Elsevier, 606-614.
- Wilson, J. (2016) 'The village that turned to gold: a parable of philanthrocapitalism', *Development and Change* 47, 1, 3-28.

- Wilson, M. L., Renne, E., Roncoli, C., Agyei-Baffour, P., & Tenkorang, E. Y. (2015) 'Integrated assessment of artisanal and small-scale gold mining in Ghana—Part 3: Social sciences and economics', *International Journal of Environmental Research and Public Health*, 12(7), 8133-8156.
- Winchester, H. P. M. & Rofo, M. W. (2010) 'Qualitative Research and its Place for Human Geography', In, I. Hay (ed.) *Qualitative Research Methods in Human Geography*, Canada: Oxford University Press, 3-25.
- Wolf, C. (2017) 'Industrialization in times of China: Domestic-market formation in Angola', *African Affairs*, 116(464), 435-461.
- Woodman, G. (2011) 'Legal pluralism in Africa: The implications of state recognition of customary laws illustrated from the field of land law', *Acta Juridica*, 2011(1), 35-58.
- World Bank (1992) *Strategy for African Mining*, Africa Technical Department Series, Mining Unit, Industry and Energy Division Technical Paper No. 181, Washington D.C.: World Bank. Retrieved from <https://documents1.worldbank.org/curated/en/722101468204567891/pdf/multi-page.pdf>
- World Bank (2005) *The millennium development goals and small-scale mining: a conference for forging partnerships for action*. Washington, DC: World Bank.
- World Bank (2018, October 17) 'Going Above and Beyond to End Poverty: New Ways of Measuring Poverty Shed New Light on the Challenges Ahead,' Retrieved from <https://www.worldbank.org/en/news/immersive-story/2018/10/17/going-above-and-beyond-to-end-poverty-new-ways-of-measuring-poverty-shed-new-light-on-the-challenges-ahead>
- World Bank (2021a) 'GDP growth (annual %) – Ghana', *World Bank Data*. Retrieved from https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2020&locations=GH&most_recent_year_desc=true&start=2010
- World Bank (2021b) 'Ghana Landscape Restoration and Small-scale Mining Project (P171933) - Project Information Document (PID)'. Retrieved from <https://documents1.worldbank.org/curated/en/483071619607979806/pdf/Project-Information-Document-Ghana-Landscape-Restoration-and-Small-Scale-Mining-Project-P171933.pdf>
- World Bank (2021c, October 11) 'Ghana At-A-Glance', *The World Bank*. Retrieved from <https://www.worldbank.org/en/country/ghana/overview#1>
- World Bank (2021d, October 11) 'Nigeria At-A-Glance', *The World Bank*. Retrieved from <https://www.worldbank.org/en/country/nigeria/overview#1>

- World Bank (2022, May 2) 'Fact Sheet: An Adjustment to Global Poverty Lines'. Retrieved from <https://www.worldbank.org/en/news/factsheet/2022/05/02/fact-sheet-an-adjustment-to-global-poverty-lines>
- Yakovleva, N. (2007) 'Perspective on female participation in artisanal and small-scale mining: a case study of Birim North District of Ghana', *Resources Policy*, 32(1/2), 29-41.
- Yankson, P. W. (2010) 'Gold mining and corporate social responsibility in the Wassa West district, Ghana', *Development in Practice* 20(3), 354-366.
- Yin, R. K. (2018) *Case Study Research and Applications Design and Methods (6th Edition)*, Los Angeles: Sage Publications
- Zhou, Y., & Liu, Y. (2019) 'The geography of poverty: Review and research prospects', *Journal of Rural Studies*. <https://doi.org/10.1016/j.jrurstud.2019.01.008>
- Zolnikov, T. R. (2020) 'Effects of the government's ban in Ghana on women in artisanal and small-scale gold mining', *Resources Policy*, 65, 101561.

Appendices

Appendix 1: Community Mining Schemes Launched as at November 2020

No.	Launch Date	Launch Venue	Assemblies Involved	Regions	Size of Area (Acres)	Expected Direct Jobs	Expected Indirect Jobs	Total Expected Jobs
1	03-Jun-20	Nsiana	Amansie West	Ashanti	1,650	16,000	3,960	19,960
2	22-Jun-20	Tinga	Bole	Savannah	151	6,000	12,000	18,000
3	23-Jun-20	Mamiriwa	Obuasi Municipality	Ashanti	126	1,000	2,000	3,000
4	23-Jun-20	Ayase	Obuasi East	Ashanti	479	600	1,200	1,800
5	08-Jul-20	Wioso	Obuasi Municipality	Ashanti	625	2,000	1,000	3,000
6	08-Jul-20	Adomanu	Adansi North	Ashanti	500	5,000	3,000	8,000
7	08-Jul-20	Aketekyieso	Amansie Central	Ashanti	750	20,000	12,000	32,000
8	18-Aug-20	Egila/Gwira	Nzema East	Western	25	600	400	1,000
9	18-Aug-20	Akango/Duale		Western	25	650	350	1,000
10	18-Aug-20	Abosso	Prestea- Huni Valley	Western	3,269	8,000	2,000	10,000
11	20-Aug-20	Bekwai	Bekwai	Ashanti	1,250	10,000	6,000	16,000
12	20-Aug-20	Adinkwaso	Adansi Asokwa	Ashanti	1,000	3,000	2,000	5,000
13	20-Aug-20	Subriso	Adansi South	Ashanti	750	3,000	2,000	5,000
14	21-Aug-20	Awiebo	Ellembelle	Western	150	1,500	1000	2,500
15	02-Nov-20	Akrekeri	Adansi North	Ashanti	31.68	5,000	5,000	10,000
16	02-Nov-20	Funso	Adansi Asokwa	Ashanti	190.5	800	400	1,200
17	02-Nov-20	Obunso	Adansi South	Ashanti	1,394.40	8,250	4,000	12,250
18	02-Nov-20	Adamso-Aplapo	Akrofuom	Ashanti	315.1	6,000	3,000	9,000
19	12-Nov-20	Ntronan	Birim North	Eastern	800	1,500	750	2,250
20	12-Nov-20	Koben	Asante-Akyem South	Ashanti	2,000	3,500	1,750	5,250
	Total				15,482	102,400	63,810	166,210

Source: Minerals Commission- Accra, 2021.

Appendix 2: Summary List of Key Informant Interviews and their Affiliations

Interview ID.	Date	Affiliation or Organization of Participant
Key Informant 1	January, 2021	Minerals Commission, Accra
Key Informant 2	January, 2021	PMMC, Accra
Key Informant 3	January, 2021	WACAM
Key Informant 4	January, 2021	EPA, Accra
Key Informant 5	January, 2021	Akango Community Leader
Key Informant 6	January, 2021	Awiebo Community Leader
Key Informant 7	January, 2021	Salman Community Leader
Key Informant 8	February, 2021	Solidaridad Network
Key Informant 9	March, 2021	Ghana Chamber of Mines Official
Key Informant 10	March, 2021	MDF Secretariate, Accra
Key Informant 11	March, 2021	Ellembelle District Official
Key Informant 12	March, 2021	Ellembelle District Official
Key Informant 13	March, 2021	Akango Community Leader
Key Informant 14	March, 2021	Akango Community Leader
Key Informant 15	March, 2021	Salman Community Leader
Key Informant 16	March, 2021	Ellembelle District Official
Key Informant 17	March, 2021	Nzema East District Official
Key Informant 18	March, 2021	Nzema East District Official
Key Informant 19	March, 2021	Akango Community Leader
Key Informant 20	March, 2021	Salman Community Leader
Key Informant 21	March, 2021	Gwira-Banso Community Leader
Key Informant 22	March, 2021	Tarkwa Nsueam District Official
Key Informant 23	March, 2021	Minerals Commission, Tarkwa
Key Informant 24	March, 2021	Akyempim Community Leader
Key Informant 25	March, 2021	Prestea Huni-Valley District Official
Key Informant 26	March, 2021	Adamus Community Manager
Key Informant 27	April, 2021	Wassa East District Official
Key Informant 28	April, 2021	Akyempim Community Leader
Key Informant 29	April, 2021	Salman Community Leader
Key Informant 30	April, 2021	Mining Consultant with GLRSSM.
Key Informant 31	June, 2021	ISODEC
Key Informant 32	July, 2021	Tinga Community Leader
Key Informant 33	July, 2021	Tinga Community Leader
Key Informant 34	July, 2021	Water Resource Commission, Accra
Key Informant 35	August, 2021	Women in Mining Association Rep.
Key Informant 36	August, 2021	GNASSM Rep.
Key Informant 37	August, 2021	Minerals Commission, Takoradi
Key Informant 38	August, 2021	Salman Community Leader
Key Informant 39	September, 2021	Bole District Official
Key Informant 40	June, 2021	Ghana Geological Survey Authority Rep.

Appendix 3: Household Survey Questionnaire

I am a PhD Candidate at Trinity College Dublin, and I am conducting my research on the topic ‘Interrogating the Poverty Impact of Gold Mining at the Community Level in Ghana.’ The study examines the impact of both artisanal/small-scale and large-scale gold mining on poverty outcomes for local people through in-depth case studies of different mining communities in Ghana. The study is purely an academic exercise, and all information provided will be treated with absolute confidentiality. Responses will be used anonymously and cannot be traced to the persons who provide them. Kindly permit me to thank you in advance for your time and contribution to this research.

Part 1: Household Characteristics & Assets

1. Which ethnic group do you belong to?

- | | |
|---------------------------------|------------------|
| Akan [] | Grusi [] |
| Ga-Adangbe [] | Mole-Dagbani [] |
| Ewe [] | Gruma [] |
| Guan [] | Mande [] |
| Other Ghanaian ethnic group [] | Non-Ghanaian [] |

Specify.....

2. a. Are you a native of this community or a migrant? Native [] Migrant []

b. If native, does this household have any relation to the royal family or traditional authorities of this community? Yes [] No []

c. If migrant, where did you come from, and when did you first relocate to this community?

Place of origin: Year of settlement:

d. If migrant, what motivated you to move to this community? (Rank all that apply)

Engage in gold mining []

Access to arable farmland []

Work as farm labour []

White collar job opportunity/transfer []

Work in the blue-collar/service sector (retail, cleaning, gardening, transport, etc.) []

Other
 (specify).....

3. How many people belong to this household (include absent migrants¹²¹)?

Name/Pseudonym of HH Members (prioritize adults if the household size is more than 10)	Age	Sex 1. Male 2. Female	Relation with HH 1. Head 2. Spouse 3. Child 4. Father/Mother/in-law 5. Uncle/Aunt 6. Sibling/in-law 7. Grandparent/in-law 8. Grandchild 9. Other (specify)	Occupation(s)	Highest Level of Education Attained 1. None 2. Primary 3. Junior High School 4. Secondary/Technical/Vocational 5. University/Post-Secondary Diploma 6. Post-graduate degree 7. Other:
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

4. a. Does this household have access to agricultural land for cultivation? Yes [] No []

b. If yes, what is the size of agricultural land available to this household for cultivation?
Acres

c. Who owns the agricultural land available to this household?

¹²¹ Absent migrant denotes any person who lives outside community for 6 months or more during the year but contributes to the upkeep of household.

Self/Household owned []

Private individual []

Traditional authority []

Other (specify):

Part 2: Household Income and Remittances

5. What proportion of your monthly household income is derived from the following?

Source of Income	Proportion of Monthly Income
Large-scale Mining	
Small-scale Mining	
Food Crop Production	
Cash Crops (such as cocoa)	
Livestock rearing	
White-collar job (teaching, clerical, etc.)	
Blue-collar/services (retail, cleaning, transport, etc.)	
Remittances from migrants	
Other (specify)	

6. a. Do you receive remittances from migrant household members on a monthly basis?

Yes [] No []

b. if yes, provide details of the proportion of monthly income that is remitted by migrants.

Name/Pseudonym of Migrant	Location	Occupation	Proportion of HH Income Received
1			
2			
3			
4			
5			

7. a. Do you send remittances to absent household members on a monthly basis?

Yes [] No []

b. If yes, provide details of the proportion of monthly income that is remitted by migrants.

Name/Pseudonym of Migrant	Location	Occupation	Proportion of HH Income Sent	Purpose of Remittance
1				
2				
3				
4				
5				

8. a. Has your household's ability to meet the following improved or worsened compared to 5 years ago?

	Improved	Somewhat Improved	Unchanged	Somewhat Worsened	Worsened
Food Needs					
Health Cost					
Educational Expenses					

b. What factors account for any improvements in the household's ability to meet any of the basic needs compared to 5 years ago?

.....

c. What factors account for any challenges in the household's ability to meet any of the basic needs compared to 5 years ago?

.....

Part 3: Impact of Gold Mining

9. a. Has gold mining in this community improved or worsened your household income compared to 5 years ago?

Improved [] Somewhat Improved [] Unchanged [] Somewhat Worsened [] Worsened []

b. If your household income has changed, please provide details of how gold mining activities have affected it:

.....

.....

 10. a. Has your household lost any productive resources, such as agricultural land, to gold mining operations in this community? Yes [] No []

b. If yes, did you receive any compensation? Yes [] No []

c. If yes, how were you compensated?

d. If yes, do you think the compensation was adequate or insufficient?

Adequate [] Somewhat Adequate [] Insufficient [] Unsure []

11. What is your general assessment of the impacts of gold mining on this community?

Beneficial [] Somewhat Beneficial [] Unaffected [] Somewhat Detrimental [] Detrimental []

12. Has gold mining reduced or worsened the incidence of poverty in this community?

Reduced [] Somewhat Reduced [] Unchanged [] Somewhat Worsened [] Worsened []

13. What are the impacts of gold mining on this community?

Impact on community	Great	Somewhat	No
a. Increased job opportunities in the large-scale mining sector			
b. Increased job opportunities in the small-scale mining sector			
c. Growth of other economic activities/livelihoods			
d. Provided infrastructural development (roads, electricity, water supply)			
e. Displacement of people			
f. Loss of agricultural lands			
g. Displacement of jobs/economic activities			
h. Water pollution			
i. Land degradation			
j. Deforestation			
k. Destruction of public infrastructure (such as roads)			
l. Worsened health conditions			
m. Increased disputes/conflict over land and other resources			
n. Reduced the importance of education			
o. Others (specify)			

Part 4: Gold Mining for Poverty Alleviation

To what extent do you agree with the following statements:

14. *The gold mining industry can be used to alleviate poverty in this community.*

Strongly Agree [] Agree [] Unsure [] Disagree [] Strongly Disagree []

15. *Greater access to natural resources would enhance poverty alleviation through gold mining activities among locals in this community.*

Strongly Agree [] Agree [] Unsure [] Disagree [] Strongly Disagree []

16. *Large-scale mining operations provide better employment opportunities for communities than the artisanal/small-scale sector.*

Strongly Agree [] Agree [] Unsure [] Disagree [] Strongly Disagree []

17. *I am confident that traditional authorities utilize royalties and revenues from gold mining to develop this community.*

Strongly Agree [] Agree [] Unsure [] Disagree [] Strongly Disagree []

18. *I am confident that district assemblies utilize royalties and revenues from gold mining for the development of this community.*

Strongly Agree [] Agree [] Unsure [] Disagree [] Strongly Disagree []

19. Would you prefer to have a large-scale mining company, artisanal/small-scale miners, or both operating in this community? Why?

.....
.....
.....
.....

20. What kind of government policies would be needed to ensure poverty alleviation from gold mining activities in this community?

.....
.....
.....
.....

21. What other suggestion would you make to help alleviate poverty in this community?

.....
.....
.....
.....

Appendix 4: Sample List of Questions for Semi-Structured Interviews

1. What do you consider to be the overall contribution of gold mining to Ghana's development?
2. What is problematic about the current legislations that govern Ghana's gold mining industry?
3. What is your assessment of the ownership structure of mineral resources in Ghana?
4. What do you think should be the benefits of gold mining to host communities? Are these benefits being realized? What factors impede their realization?
5. What is your assessment of the role of large-scale mining companies in poverty alleviation in host communities?
6. How can small-scale mining be leveraged to alleviate poverty in resource-rich communities?
7. What is your assessment of how mining revenues are allocated and used for the development of host communities?
8. What is your assessment of the level of transparency and efficiency in managing revenues from the gold industry?
9. What is your assessment of the allocation of mining revenues to local governments for development?
10. What is the level of consultation between district assemblies and the community on how mining revenues are used for development projects?
11. What is your assessment of the allocation of mining revenues to traditional rulers of host communities?
12. What is the level of consultation between the traditional authority and the community on how mining revenues are used for development projects?
13. What is your assessment of the relationship between large and small-scale sectors of the gold mining industry?
14. How do you evaluate the relationship between host communities and large-scale mining companies in this district?
15. How do you evaluate the relationship between host communities and small-scale miners?
16. How can the gold mining industry be used as a tool for poverty alleviation in host communities?
17. What is your assessment of the role of large-scale mining companies in poverty alleviation in this community?

Appendix 5: Informed Consent Form

Title of research study: Interrogating the Poverty Impact of Gold Mining at the Community Level in Ghana.

This study and this consent form have been explained to me. I believe I understand what will happen if I agree to be part of this study. I have read, or had read to me, this consent form. I have had the opportunity to ask questions and all my questions have been answered to my satisfaction. I freely and voluntarily agree to be part of this research study, though without prejudice to my legal and ethical rights. I have received a copy of this agreement and I understand that, if there is a sponsoring company, a signed copy will be sent to that sponsor.

Name of sponsor: Trinity College, Dublin

Participant's name/pseudonym:

Participant's signature:

Date (day/month/year):

Date on which the participant was first furnished with this form:

Participants with literacy difficulties: I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely and understands that they have the right to refuse or withdraw from the study at any time.

Print name of witness:

Signature of witness:

Date (day/month/year):

Thumbprint of participant:

Statement of investigator's responsibility: I have explained the nature, purpose, procedures, benefits, risks of, or alternatives to, this research study. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

Researcher's signature:

Date: