

**An institutional weakness? – The participation of Chinese miners in
Ghana’s artisanal and small-scale gold mining (ASGM) sector.**



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Abstract

This thesis addresses the ongoing debate on the involvement of Chinese nationals in Ghana's artisanal and small-scale gold mining (ASGM) sector. Despite the Minerals and Mining Law, Act 703 (2006) prohibiting foreigners from engaging in ASGM, it is reported that about 50,000 Chinese nationals have migrated to rural Ghana to engage in illegal mining activities. This has caught the attention of the public and raised concerns about the regulation of the sector. The thesis investigates the factors that enable Chinese participation in Ghana's ASGM sector, the challenges associated with its regulation, and its impact on rural transformation in Adum Bansa, Western Region, Ghana. The study adopts qualitative methods, including semi-structured interviews, focus group discussions, and field visits, to obtain primary and secondary data. The findings indicate that local miners in Ghana seek to mechanise and intensify mining operations but lack the financial and technical capacity to do so. Consequently, they collaborate with Chinese miners by requesting investments or technical training. This has led to the emergence of a fast-developing mechanised and intensified "medium scale" mining sub-sector, which falls outside the institutional and regulatory framework of Ghana's mining sector. The state's efforts to address the issues associated with this "medium scale" sector have resulted in the institutionalisation of stopgap measures, such as ad-hoc military operations to flush out foreigners from the sector. However, these measures are dependent on committees that lack the historical working relationships and procedures necessary to navigate the phenomenon efficiently. As a result, state actors, local miners, and Chinese miners find themselves in a "grey area". Moreover, the thesis makes a significant discovery regarding the role of gambling activities and infrastructure, particularly casinos, in the gold trade within rural mining communities like Adum Bansa. It reveals that casinos play a crucial role in illicit financial flows (buying, selling, and smuggling of gold), establishing an elaborate "financial system" established by Chinese entrepreneurs. The thesis concludes that the state must establish responsive institutions and structures that can efficiently navigate fast-developing issues like the emergence of a medium-scale mining sector fuelled by foreign participation and investments. Institutions must resonate with the reality of society to effect desirable change; otherwise, opportunistic individuals may continue to exploit such weaknesses.

Keywords: Chinese participation, ASGM, Institutional weakness, Rural transformation, Ghana

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List of Abbreviations

ABTA	Adum Bansa Traditional Authority
ASGM	Artisanal and Small-scale Gold Mining
BOPP	Benso Oil Palm Plantation
CMS	Community Mining Scheme
DCE	District Chief Executive
EPA	Environmental Protection Agency
ERP	Economic Recovery Programme
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GIS	Ghana Immigration Service
GNASSM	Ghana National Association of Small-Scale Miners
GSS	Ghana Statistical Service
IMCIM	Inter-Ministerial Committee on Illegal Mining
IMF	International Monetary Fund
KII	Key Informant Interview
LSM	Large Scale Mining
MDF	Minerals Development Fund
MCAS	Mining Cadastre Administration System
MESTI	Ministry of Environment, Science, Technology, and Innovation
MIIF	Minerals Income Investment Fund

MinCom	Minerals Commission
MLNR	Ministry of Lands and Natural Resources
NAELP	National Alternative Employment and Livelihood Programme
PNDC	Provisional National Defence Council
PNDC Law	Provisional National Defence Council Law
PMMC	Precious Marketing Minerals Corporation
RQ	Research Question
SSMIP	Small Scale Mining Incubation Programme
UMAT	University of Mines and Technology
UNCTAD	United Nations Conference on Trade and Development

Chapter 1

1. Introduction

1.1 Background

Artisanal and Small-Scale Gold Mining (ASGM) has gained significant attention globally in policy development and research due to its impact on society and the environment (Mestanza-Ramón et al., 2022). ASGM currently contributes 20% of the world's gold production and supports the livelihoods of 15-20 million people worldwide, possibly resulting from rising unemployment and increased gold prices in the international market (*ASGM Report 2022 Press Release*, 2022; Veit & Vallejos, 2020).

ASGM plays a significant role in providing a source of livelihood for many rural communities in Sub-Saharan Africa and other developing countries (Persaud et al., 2017). However, these communities often consist of very poor individuals who engage in informal gold exploitation and extraction, utilizing basic man-made/local tools, equipment, and rudimentary techniques that require intense human labour (Boafo et al., 2019; Eshun & Okyere, 2017). The resulting mining practices can cause significant harm to the environment (Carvalho, 2017). Efforts have been made over the last four decades to formalize and regulate the ASGM sector in Sub-Saharan Africa to improve the livelihoods of miners, enhance the sector's contribution to sustainable development, and provide other economic and social benefits (Hilson et al., 2017, 2022; Persaud et al., 2017; Teschner, 2012). Despite the legalisation of ASGM in Ghana in 1989, the formalisation and regularisation of the sector continue to face fiscal, institutional, and political challenges (Hilson et al., 2022; Verbrugge, 2015).

Ghana is one of the top two producers of gold in Africa, and the ASGM sector accounts for over 35% of its total gold output (Kumah, 2021). However, the government of Ghana, traditional authorities, civil society organizations (CSOs), and the media have expressed serious concerns about the environmental and other adverse effects of both legal and illegal ASGM activities, locally known as '*galamsey*'¹ (Osei et al., 2021). Legal ASGM refers to miners who possess appropriate registration documents and regulatory approval from government agencies such as the Minerals Commission through the Environmental Protection Agency (EPA), Water Resources Commission, and the Forestry Commission. They pay taxes,

¹ The term '*galamsey*' is a corrupted version of the phrase 'gather and sell'. It refers to the practice of mining minerals in Ghana without regulatory approval (Owusu-Nimo et al., 2018a).

do not mine in prohibited areas such as forest reserves and water bodies, and adhere to strict labour conditions and human rights (Mantey et al., 2017). Galamsey (illegal ASGM), on the other hand, ignores these regulations.

Foreigners, particularly Chinese miners, have been found to be instrumental in galamsey (Botchwey et al., 2019a), although the influx of Chinese miners has also contributed to the development and mechanization of Ghana's ASGM sector, significantly impacting production and economics, environment, and social life within the mining communities (Crawford et al., 2016). In economic terms, ASM gold production reached an all-time high of 2.13 million ounces (43% of national production) in 2018 (Minerals Commission, 2022). On the environment, the Ghana Water Company warned in 2017 that the extreme deterioration of water quality caused by these mining practices could result in Ghana having to import water from neighbouring countries (Eduful et al., 2020; *Water Research Institute*, 2021).

1.2 Problem Statement

Section 83 of the Minerals and Mining Act 2006 (Act 703) stipulates that “*a license for small-scale mining can only be granted to a Ghanaian citizen who is at least eighteen years old and registered by the Commission in a designated area under section 90(1)*” (Minerals and Mining Act, 2006 (Act 703)). This provision implies that foreigners are not eligible to participate in any form ASGM in Ghana. However, there has been a significant increase in the number of non-Ghanaians engaging in ASGM activities in the country, particularly Chinese miners, in the last decade.

Research shows that approximately 50,000 Chinese miners engaged in irregular ASGM activities in Ghana between the mid-2000s and 2016 (Botchwey et al., 2019b; Hausermann et al., 2020; Loubere & Crawford, 2016). These Chinese miners originate from the Shanglin County in the Guangxi Zhuang Autonomous Region of China, a region with a long-standing history of alluvial gold mining. The county is classified as a nationally designated ‘poverty-stricken’ area and is home to the Zhuang ethnic minority group (Botchwey et al., 2019a; Loubere et al., 2019). The participation of Chinese miners in Ghana's ASGM sector has raised concerns among the government, media, and citizens, as they have been accused of collaborating with unregistered ASGM operations, leading to environmental degradation and negative social impacts.

On the other hand, the development of Ghana's ASGM sector has been attributed to the advanced technologies and mechanization introduced by these Chinese miners (G. Crawford & Botchwey, 2020). However, this influx has also had adverse effects on rural mining communities, including widespread child labour in ASGM and a high school dropout rate of 57% (Azumah et al., 2021). Due to poverty in rural areas, many children as young as six or seven years old join their parents in mining activities as an alternative source of household income, which affects their education (attendance and performance) (Azumah et al., 2021). A study in the Kono mining community in Sierra Leone found that children's participation in artisanal and small-scale diamond mining played a critical role in reducing household poverty (Maconachie & Hilson, 2016).

Considering the foregoing, the central question arises: despite the clear provisions of Act 703, why do non-indigenous individuals, particularly Chinese miners, continue to engage in ASGM activities in Ghana? This inquiry raises concerns about potential institutional challenges in regulating the country's ASGM sector. Thus, this study aims to contribute to the literature by examining why Chinese miners participate in ASGM activities in Ghana, despite its illegality.

1.3 Research Questions

Considering the illegality of non-indigenous participation in Ghana's ASGM sector, this study aims to investigate the determinants of Chinese participation in ASGM, institutional lapses in regulating the sector, and the implications of such participation on rural transformation in the Adum Bansa mining community. Thus, the study is guided by the following research questions:

1. What are the primary enabling factors that contribute to Chinese participation in ASGM activities in the Adum Bansa mining community?
2. What institutional challenges are associated with regulating Chinese participation in ASGM activities in the Adum Bansa mining community?
3. In what ways does Chinese ASGM participation influence rural transformation in the Adum Bansa mining community?

These research questions are critical in illuminating the extent and impacts of Chinese participation in the ASGM sector, as well as identifying the institutional challenges associated with regulating the sector. Consequently, the study aims to contribute to the existing literature by providing evidence-based recommendations for enhancing regulation and promoting sustainable rural development in the Adum Bansa mining community.

1.4 Overview and Organisation of the study

This thesis is structured into 8 chapters. Chapter 1 of the thesis introduces the background of the study and research questions. Chapter 2 presents a historical overview of mining in Ghana and contextualises ASGM Chinese participation. Chapter 3 discusses the analytical frameworks in which findings are analysed. Chapter 4 expounds on the methodological framework of the thesis. Chapters 5 to 7 present analytical discussions of findings and Chapter 8 concludes the study with some important and new findings for further research.

Chapter 2

2. History of Mining in Ghana and Contextualising ASGM Chinese Participation

2.1 Introduction

This chapter provides an overview of the existing literature and data on ASGM in Ghana. To gain a comprehensive understanding of the country's ASGM sector, this chapter delves into historical and contemporary literature on ASGM in Ghana. The first section of this chapter presents a historical account of gold mining and trading in Ghana, starting from the pre-colonial era up to the present day. Furthermore, the chapter examines the institutional and regulatory frameworks governing ASGM during the colonial and post-colonial periods. In the second section, the chapter focuses on the involvement of non-indigenous actors, particularly Chinese miners, in Ghana's ASGM sector and discusses its effects on rural transformation and development.

2.2 History of gold mining in Ghana

Ghana has a long-standing history of gold mining dating back to pre-colonial times (Hilson, 2002). The Akan states² engaged in gold mining, which was one of their primary economic activities. Dumett (1998) classifies pre-colonial gold mining methods into three categories: alluvial gold mining, shallow pit/surface mining, and deep shaft mining.

In 1471, the Portuguese became the first Europeans to arrive on the Gold Coast, and they monopolized the gold trade until the Dutch defeated them in 1637 (Ellis, 1893; DeCorse, 1998; Klooster, 2016). It is relevant to note that the Portuguese managed to open and work two auriferous ore deposit mines on the Gold Coast (Kesse, 1985). This will be the initiation of foreign participation in Ghana's ASGM sector. It is relevant to note that all gold mining activities during the pre-colonial era of Ghana, through to the arrival of the Europeans in 1471, till the late 19th century were purely artisanal and small-scale (Anin, 1987). The British then took over the trade and established laws that prohibited ASGM in favour of large-scale mining (LSM) (Afeku & Debrah, 2022). The establishment of the Concessions Ordinance of 1900 and Mercury Ordinance of 1932 led to the criminalization and illegality of ASGM activities on the Gold Coast (Hilson, 2002b, p. 22). The Mercury Ordinance of 1932 specifically banned the use of mercury in gold mining to force locals to seek employment in the LSM sector (Hilson, 2002b). Akabzaa & Darimani (2001) highlight how ASGM was predominantly operated by

² Gold-producing forestlands in Western Africa, particularly in present day Ghana (Wilks, 1982).

indigenes leaving the capital and labour-intensive LSM activities and most mineral resources on the Gold Coast only for the British.

However, Ghana's gold mining sector began to decline from 1950 onwards due to mismanagement, and its independence in 1957 marked the rapid deterioration of the sector (Acquah & UNCTAD, 1995; Tsikata, 1997; Hilson, 2002b). The government attempted to revive the mining sector by establishing a commission to study the industry, but its attempt was futile due to excessive state control (Hilson, 2002b). The government's engagement with the IMF and World Bank led to the implementation of the Economic Recovery Plan (ERP)³, which opened the door for multinational mining companies to invest in Ghana (Ofosu-Mensah Ababio, 2021). As a result, Ghana experienced a gold boom (Agbesinyale, 2017).

Additionally, though ASGM was considered an illegality from 1932, it was still ongoing behind the scenes until it was legalised in 1989. Upon the realisation of ASGM's profitable contribution to the almost collapsing Ghanaian economy, the Government, in 1989, passed three laws to legalise and regularise ASGM (Hilson, 2001). The Mercury Ordinance of 1932 was repealed by the Mercury Act, 1989 (PNDCL 217) to facilitate the possession or importation of mercury for mining-related activities (MERCURY ACT 1989 (P.N.D.C 217)). The Precious Mineral Marketing Corporation Law 1989 (PNDCL 219) was enacted to change the name of the then Diamond Marketing Corporation to the Precious Marketing Minerals Corporation (PMMC)⁴. This was to facilitate an efficient economic relationship between the Government and ASGM. Lastly, the Small-scale Gold Mining Law 1989 (PNDCL 218)⁵ was enacted to legalise all ASGM activities. The PNDCL 218 permitted Ghanaians to apply for a license to operate ASGM (*Small-Scale Gold Mining Act, 1989 (P.N.C.D.I. 218)*). Table 1 below shows an overview of ASGM institutional and regulatory frameworks in Ghana from 1989 to date.

³ (Policy Framework Papers--Ghana--Enhanced Structural Adjustment Facility, Economic and Financial Policy Framework Paper, 1998-2000 - 2023).

⁴ The PMMC was mandated to appoint licensed buying agents for the purchase of precious minerals (gold) produced by small-scale miners (PMMC, 2023).

⁵ It also had the mandate of regulating registrations, facilitating the granting of ASGM licences, and establishing district mining centres to assist applicants (McQuilken & Hilson, 2016).

Table 1. Institutional and Regulatory Frameworks for ASGM in Ghana from 1989 to date

Year	Law or Regulation on ASGM	Relation to ASGM
1989	Mercury Act (PNDCL 217)	The Mercury Ordinance of 1932 was repealed by the Mercury Act of 1989 (PNDCL 217) to facilitate the possession or importation of mercury for ASGM and other mining-related activities.
1989	Small-scale Gold Mining Law (PNDCL 218)	The Small-scale Gold Mining Law (PNDCL 218) was enacted to legalise all ASGM activities. The PNDCL 218 permitted Ghanaians to apply for a license to operate ASGM.
1989	Precious Minerals Marketing Corporation Law (PNDCL 219)	The Precious Mineral Marketing Corporation Law (PNDCL 219) was enacted to change the name of the then Diamond Marketing Corporation to the Precious Marketing Minerals Corporation (PMMC).
1993	Minerals Commission Act 450	The Minerals Commission Act 450 was enacted to establish the Minerals Commission of Ghana. The Commission is solely responsible for the development, coordination, implementation, and monitoring of policies for the minerals and mining industry of Ghana.
2006	Minerals and Mining Act 703	The Small-Scale Gold Mining Act, 1989 and other existing mineral and mining laws were repealed by the Minerals and Mining Act 703. Act 703 empowers the Minister of the MLNR to designate areas for ASGM operations after consultation with MinCom.

Source: Author's construct (2023).

2.3 Chinese participation in Ghana's ASGM sector

China's investment and interest in Africa have been widely discussed in the literature. China has become the largest consumer of African resources and a significant trading partner, with investments worth approximately \$300 billion since the 2000s (Amo-Agyemang, 2021). The presence of China in African countries endowed with energy and mineral resources, in the form of investments and trade, has been notable (Moyo, 2016). For instance, China's dominance in Zambia's copper mining industry is a clear indication of this. In 2006, China was the largest investor in Zambia, and by 2007, the Zambian government announced a tax and export exemption for Chinese investors operating in the Copperbelt town of Chambishi (Gadzala, 2010). In return, China agreed to invest \$800 million in infrastructure projects across the

country (Gadzala, 2010; Hairong & Sautman, 2013). For the past six decades, Ghana and China have had diplomatic and trade relations. Since 2007, China has made significant investments in Ghana's infrastructure, health, and telecommunications sectors. In 2018, Ghana signed a \$2 billion Sino-Sure Framework with the Sino-Hydro corporation to invest in infrastructure, road, and railway projects (Neal & Losos, 2021).

The literature has critically and extensively evaluated the Chinese presence in Africa from various perspectives. In one such comprehensive analysis, Moyo (2016) identifies three primary perspectives on China's presence in Africa: (1) China as an independent and contemporary colonizer of Africa, (2) China's presence as a generous aspect of the globalization process, which enables African states that have been long ignored by Eurocentric dominance to manoeuvre in modified markets, and (3) China as a sub-imperial force leading the rush for African resources as a tributary component of Euro-American hegemony (Moyo, 2016, p. 59). These perspectives, along with other combinations, have been considered by several scholars as the driving forces behind the migration of opportunistic Chinese into Ghana's informal economy, particularly the ASGM economy (Antwi-Boateng & Akudugu, 2020; Crawford & Botchwey, 2017; Hilson et al., 2014b).

Foreign involvement in Ghana's ASGM sector can be traced back to the pre-colonial era with the arrival of the Portuguese. The Portuguese used artisanal methods to operate mines on the Gold Coast in the 1600s (Kesse, 1985). However, since the passage of the Small-scale Gold Mining Law 1989 (PNDCL 218) which reserved ASGM for only Ghanaians, the industry has played an important role in the rural economy (*Small-Scale Gold Mining Act, 1989 (P.N.C.D.I. 218)*.; Oforu-Mensah Ababio, 2021). In 2006, the law was replaced by the Minerals and Mining Act 703, which reinforced the exclusive reservation of ASGM for Ghanaians. Act 703 outlines all requirements and procedures for the formal operation and regulation of ASGM in Ghana and strictly prohibits the participation of non-indigenes/foreigners in any ASGM operation. It clearly states that '*A license for small-scale mining operation shall not be granted to a person unless that person is a citizen of Ghana, has attained the age of eighteen years, and is registered by the office of the Commission in an area designated under section 90(1)*' (*Minerals and Mining Act, 2006 (Act 703)*).

Despite the legal provisions that reserve ASGM for only Ghanaians, recent literature suggests that the Chinese have increasingly participated in foreign ASGM, thereby flouting Ghana's regulations. Notably, Hilson et al., (2014) report that up to 50,000 Chinese miners migrated to

Ghana in 2005, while the spike in gold prices in 2008 further attracted more Chinese miners to Ghana (Ofosu-Mensah Ababio, 2021). Chinese migration to Ghana for gold mining dates to the colonial era, as the British brought some Chinese laborers and a small group of 16 Chinese miners and technicians to work in Gold Coast mines in 1897 (Botchwey et al., 2019). Cook et al., (2016) also explain that Chinese businessmen who invested in small-scale agriculture, catering, and the casino industry in post-colonial Ghana hired labour from China, contributing to the steady influx of non-resident Chinese migrant workers.

Previous studies have identified various factors that attract Chinese miners to Ghana's ASGM sector, with institutional weakness and regulatory loopholes being the primary pull factors (Hilson et al., 2014b; McQuilken & Hilson, 2016; Botchwey et al., 2019a; Antwi-Boateng & Akudugu, 2020; Crawford & Botchwey, 2020). Weak institutions and regulations are found to be prevalent throughout the Chinese participation in ASGM, from their entry to exit in the sector. The literature also highlights the role of Ghana's Immigration Service in this phenomenon (Hilson et al., 2014; Loubere et al., 2019; & Antwi-Boateng & Akudugu 2020). Hilson et al., (2014) suggest that immigration officers have been implicated in permitting entry for thousands of Chinese nationals without visas or valid residence and working permits, who arrive via Kenya and Emirates airline connecting flights. Nevertheless, how do these Chinese miners gain entry into Ghana? Aidoo (2016) interprets that due to the lack of an efficient system within Ghana's Immigration Service to track and monitor the immigration documents of these Chinese miners, they mostly arrive on tourist visas and overstay, thereby outwitting immigration officers.

Antwi-Boateng & Akudugu (2020) posit that institutional weakness in Ghana's ASGM sector is linked to corruption. The authors contend that although Ghana has institutions in place, corrupt individuals have compromised them for their own gain. Additionally, Hilson et al., (2014) argue that corruption at the local level involving traditional authorities in mining communities is also a factor. For instance, some traditional authorities are said to have forged working agreements with Chinese miners, allowing or 'permitting' them to operate on their lands in exchange for a percentage of gold output (Kakape, 2023). The literature largely associates official corruption with institutional weakness in Ghana's ASGM sector and its role in driving Chinese participation (Crawford & Botchwey, 2020).

The literature identifies another pull factor that draws Chinese miners to Ghana, namely the willingness of locals to collaborate with them. Antwi-Boateng & Akudugu (2020) contend that

even though ASGM is legally reserved for Ghanaians, some locals, mainly small-scale miners, are willing to act as intermediaries or "compradors" for Chinese miners for their own gain. These compradors are crucial in facilitating Chinese participation in ASGM, as they assist with obtaining fraudulent immigration documents and concessions and provide security for Chinese miners to operate without fear. Studies suggest that compradors may be influential individuals in high-level government positions (Crawford et al., 2016). Botchwey et al., (2019) note that locals are willing to take the risk of collaborating with Chinese miners because the Chinese possess the necessary capital and technology to increase gold production. Hilson et al., (2014) contend that the prevalence of Chinese collaboration is due to the failure of the government to address the needs of the ASGM sector. As a result, an opportunity has been created for foreign investors and miners to exploit, which has far-reaching effects on the ASGM sector and society.

2.4 ASGM Chinese participation and rural transformation

Numerous studies have extensively discussed the impact of ASGM on socio-economic development and the environment, not only in Ghana but also in other Sub-Saharan African countries (Mireku-Gyimah et al., 1996; Hilson, 2001; Inkoom & Agbesinyale, 2014; Baah-Ennumh, 2015; McQuilken & Hilson, 2016; Persaud et al., 2017; Botchwey & Crawford, 2019; Barenblitt et al., 2021; Arthur-Holmes et al., 2022). For instance, Persaud et al., (2017) assessed the socio-economic significance of ASGM in Kedougou, rural Senegal. The study found that miners earned between \$4-\$7 per day, well above the official rural poverty line in Senegal of \$1 per day, highlighting the economic importance of ASGM in rural Senegal.

Baah-Ennumh (2015) presents a comprehensive analysis of ASGM in the Tarkwa-Nsuaem Municipality of Western Ghana, examining its effects on sustainable livelihoods. The study identifies both positive and negative impacts, classified under sustainable livelihood indicators such as social, economic, institutional, and environmental conditions. In addition, Barenblitt et al., (2021) evaluate the impact of ASGM practices on human health and terrestrial ecosystems. They outline the detrimental effects of mercury usage during the amalgamation process on human health, as well as its impact on the degradation and destruction of forested ecosystems in southwestern Ghana.

The above are typical effects and impacts of ASGM on sustainable livelihoods and rural development. However, in the case of Chinese participation in Ghana's ASGM sector, the literature reveals a change in dynamics. Crawford et al., (2016) discuss the impact of Chinese participation in small-scale alluvial gold mining in the Western Region and attribute the

mechanisation and intensification of ASGM operations to Chinese involvement. The introduction of advanced mining equipment like the *changfa*⁶, wash plants, excavators, and water platforms has greatly increased the productivity of ASGM operations, resulting in an extraordinary rise in overall gold production. Official gold production from ASGM operations doubled between 2010 and 2013 from 767,196 oz in 2010 to 1,576,478 oz in 2013 due to mechanisation (Minerals Commission 2022). However, the heavy mechanisation and intensification of ASGM operations have had adverse environmental effects.

Environmental degradation is a consistent impact associated with Chinese participation in ASGM, as discussed in the literature. Antwi-Boateng & Akudugu (2020) explain that ASGM had already been harming the environment even before Chinese participation, but their involvement has worsened the negative impact on Ghana. Mechanisation and intensification of ASGM operations have led to the destruction of farmlands and affected the livelihoods of poor farmers, according to Botchwey et al., (2019). They argue that the scramble for more land to mine has resulted in the encroachment of farmlands, especially cocoa farms, which has adverse effects on food security and foreign exchange. Moreover, Chinese miners directly mine in water bodies, dredging riverbeds, resulting in severe pollution of rivers beyond recognition and negatively affecting aquatic life, as (Crawford et al., 2016) and the Water Research Institute (2021) report.

Although the mechanisation and intensification of ASGM operations have had negative consequences for the environment and livelihoods, they have also had positive effects on the economic well-being of miners and their households. Botchwey et al., (2019) acknowledge that Chinese ASGM operations have been highly profitable. Their study revealed that local miners and licensed concession owners in partnership with Chinese miners could earn approximately \$4,000 - \$6,500 per week. As a result, local businesses in these mining communities have flourished due to the soaring demand for fuel, food, and accommodation. Additionally, there have been increased employment opportunities in mining communities. Crawford et al., (2016) report that locals are being employed and trained as machine operators, and some women are even hired as cooks at mining sites. The literature discusses all possible impacts of ASGM Chinese participation on the environment and livelihoods. Nevertheless, this study contributes further by discussing the implications of rural transformation in mining communities in detail.

⁶ A Chinese made diesel powered rock crusher locally assembled in Ghana meant for crushing excavated deposits (Bansah et al., 2016).

Chapter 3

3. Theorising Institutional Weakness and Rural Transformation

3.1 Introduction

This chapter presents a theoretical framework for understanding the issue of Chinese participation in Ghana's ASGM sector. The framework draws on the conceptualisation and theorisation of institutional weakness by Brinks et al. (2019) and rural transformation by Berdegué et al. (2013). Berdegué et al. (2013) elucidate the drivers and factors that contribute to rural transformation. Meanwhile, Brinks et al. (2019) propose a conceptual framework that identifies, measures, and assesses institutional weaknesses in Latin America. By combining these two theories, this framework provides a lens for comprehending the challenges of institutional weaknesses and rural transformation in the context of ASGM Chinese participation in Ghana.

This thesis applies the conceptualisation and theorisation of institutional weaknesses in Latin America to the phenomenon of ASGM Chinese participation in Ghana. According to Brinks et al. (2019), the lessons learned from the case of Latin America can be applied beyond the region, as the identified sources of institutional weaknesses are endemic across the Global South and may even be present in some developed democracies (p. 7).

3.2 Formal Institutions

Institutions, according to North (1991, p. 97), are formal and informal constraints created by humans to structure political, economic, and social interaction. Formal constraints include laws, rules, and constitutions, while informal constraints include taboos, customs, traditions, and codes of conduct. Brinks et al. (2019) argue that the interaction between formal and informal constraints affects the work that institutions do and their strengths and weaknesses. Boafo et al., (2019) illustrate how state institutions interact with customary institutions in the mining sector of Ghana, leading to illicit Chinese participation in ASGM. The 1992 Constitution of Ghana vests all minerals in the President on behalf of the people of Ghana, while customary law vests all stool and skin lands⁷ in the chief or traditional authority. Most lands in Ghana are held by traditional authorities (Bob-Milliar, 2009, p. 543), but the state owns the mineral resources beneath or on the land that traditional authorities own. This creates a paradox of the law, which Lund (2006) describes as the "twilight" characteristic of African

⁷ Names given to lands that belong to traditional authority (Cordes et al., 2021) .

institutions, where traditional authorities and institutions contest for public authority simultaneously with government institutions.

Brinks et al. (2019) define formal institutions as a collection of rules that have been officially authorized to direct human behaviour and expectations towards a legal objective or activity. These rules specify actors and their roles, allow, or demand certain behaviours, and describe the consequences of non-compliance (Crawford & Ostrom, 1995). Accordingly, all the laws and regulations governing ASGM (refer to *Table 1*) are considered formal institutions. Nonetheless, the Minerals and Mining Act 703 of 2006 is the primary institutional and regulatory framework for ASGM in Ghana, and therefore, it is the focus of this study.

3.3 Institutional weakness

To identify, assess, and measure the strengths and weaknesses of formal institutions (Section 83 of the Minerals and Mining Act 703, 2006), Brinks et al. (2019, p. 8) propose a conceptual scheme that sets the statutory goal of the institution rather than the policy objectives of institutional creators as the benchmark for evaluation. This enables one to analyse the strength or weaknesses of an institution by identifying how the activities and strategies of actors weaken or strengthen institutions. The statutory goals of institutions may be transformative or conservative. Conservative goals seek to preserve the status quo whilst transformative goals aim at changing the status quo (Brinks et al. 2019, p. 9). Hence, a strong or effective institution sets a significant goal and achieves it whilst a weak institution fails to set an ambitious goal and accomplishes little or nothing causing severe implications (Brinks et al. 2019, p. 8).

Chabal & Daloz (1999) further explain how institutions can achieve effectiveness. They propose that an institution must organise its structure, purposes, and resources to provide fair, rational, and predictable rule-based governance to achieve effectiveness. Whereas weak institutions because of inefficiency may impose severe implications on society. For instance, Edokat & Njong (2019) study the role of institutions and governance in the economic transformation of Africa. They conclude that the crafting of weak institutions together with poor governance have stunted the growth of African economies – a vivid implication of institutional weakness. Other studies by Lund (2006) underline and relate issues like corruption and elite capture with institutional weaknesses in Africa.

3.3.1 Institutional weakness in Africa

Numerous studies in the literature have linked institutional weakness with Sub-Saharan Africa (Bates, 1987; Chabal & Daloz, 1999; Lund, 2006; Ajakaiye & Ncube, 2010; Robinson & Acemoglu, 2012; Harrison et al., 2014; Luiz & Stewart, 2014). For instance, Aron (2000, p. 104) points out that while constitutions are abundant in Africa, many are ineffective due to their suboptimal nature. Luiz & Stewart (2014) conducted a study on the responses of South African multinational enterprises to corruption in African markets and found that African markets face challenges not only because they are unexplored, but also because of weak institutional and regulatory frameworks, including flawed judicial and political systems. Luiz & Stewart (2014) describe Africa as a zone of institutional voids and suggest that these voids facilitate corrupt behaviours in society (Luiz & Stewart, 2014, p. 383). Chabal & Daloz (1999) support Luiz & Stewart's (2014) perspective on how corruption emanates from institutional weakness and explain why corruption is pervasive within African states. They argue that African states share an "acute degree of apparent disorder" due to governmental and administrative inefficiency, institutional weaknesses, and a general disregard for rules in society. They propose to describe and understand African institutions as spaces of "institutionalised disorder" (Chabal & Daloz, 1999). Bofo et al., (2019) consider Chabal & Daloz's (1999) essay as one of the most influential and thought-provoking pieces on the logic of African institutions.

3.4 Types of Institutional weaknesses

Aron (2000, p. 104) argues that institutional weaknesses can result from the absence of relevant rules, suboptimal rules, or poor enforcement of rules. Similarly, Brinks et al. (2019) categorize institutional weaknesses into three types: "insignificance, noncompliance, and instability." Insignificance refers to situations where society complies with a stable institution, but the institution does not impact or guide the behaviour of society or relevant actors and is therefore considered "superfluous" (Brinks et al. 2019, p. 13). Brinks et al. (2019) note that some institutions are designed to be insignificant, such as constitutional courts that do not restrict or constrain the government. This is because the design, outcome, and preference of the judicial system align with the preference of the dominant political class (Brinks et al. 2019, p. 14).

Noncompliance is considered a form of institutional weakness whereby actors disregard rules established by an institution (Brinks et al. 2019, p. 17). According to Brinks et al. (2019), noncompliance can result from two main causes: (1) a deliberate decision by state officials not to enforce rules, and (2) the incapacity of state officials to enforce or secure cooperation from

society. Aron (2000, p. 104) suggests that state officials' incapacity to enforce rules occurs when the cost of enforcement and monitoring is high. However, Brinks et al. (2019, p. 18) argue that noncompliance often occurs because state officials or actors deliberately choose not to enforce institutionalised rules, creating what Levitsky & Murillo (2013, p. 97) refer to as "window dressing" institutions. For instance, Ghana enacted the compulsory use of seat belts in 2004, but reports indicate that compliance has been low, with some commercial intra-city minibuses lacking seat belts altogether (Afukaar et al., 2010; Densu & Salifu, 2013; Agyemang, 2018; Okyere et al., 2021). Okyere et al., (2021, p. 2) suggest that noncompliance with seat belt usage could be due to poor enforcement, political interference, lack of resources and administrative capacity, and corruption. Mahoney & Thelen (2010, p. 11) add that noncompliance can occur since rules cannot always address the complexities of all real-life situations.

In situations where 'new' practices, such as foreign participation in ASGM, conflict with established rules, it is necessary to modify existing institutions to address this new reality. Failure to do so may result in noncompliance from society. Brinks et al. (2019, p. 21) acknowledge that compliance is dependent on the level of societal cooperation or resistance. They observe that the responses of society to institutional rules can vary. If rules align with social norms and customs, there is typically cooperation, but if rules contradict societal norms, there is often resistance. When faced with strong societal resistance, enforcement may be reduced, and officials may opt to turn a blind eye rather than enforce the law due to the high cost of enforcement.

According to Brinks et al. (2019, p. 24), institutional instability is characterised by an excessive rate of institutional change, which leaves political actors dissatisfied. Consequently, political actors are unable to establish stable expectations about how laws function or develop clear strategies to advance their interests within the framework of the law. Identifying this type of "instability" associated with institutional weakness is more challenging than identifying non-compliance, as noted by Brinks et al. (2019). For instance, in Africa, electoral laws are frequently and indiscriminately changed after every election, often to extend presidential terms, according to Tull & Simons (2017, p. 81). This frequent quest for "third term bids" by political actors raises doubts about the extent of political power institutionalisation in Africa. Dulani (2015) survey across 34 African countries revealed that 73% of citizens preferred two-term

limits. Hence, the excessive or frequent changes of pre-existing rules with opposing rules are more likely to induce institutional weakness (Brinks et al. 2019, p. 24).

3.5 Rural Transformation

Berdegúe et al. (2013) argue that institutions play a significant role in the rural transformational process. Rural transformation, as defined by Berdegúe et al. (2013), refers to extensive societal change in which rural societies reduce their dependency on agriculture by diversifying their economic or livelihood sources. This process also involves the acquisition of goods, services, and ideas from "outsiders" or distant places, migration from villages to small and medium cities, and the adoption or exhibition of some cultural characteristics of urban societies. According to Berdegúe et al. (2013), rural transformation is primarily the reorganisation of society within a specific space, rather than the emptying of that space due to economic activities moving away from it.

According to Berdegúe et al. (2013), rural transformation is driven by several primary and global factors such as the diversification of rural economies away from traditional agricultural practices, the modernisation of agri-food systems, and the urbanisation of rural communities. The authors argue that these drivers of rural transformation are facilitated by institutions, local social structures, and different levels of human agency, which help explain why rural transformation varies across countries and regions. Therefore, in the context of Chinese participation in ASGM in Adum Bansa in the Mponoh district of Ghana, the role of institutions and local social structures is crucial in understanding the impact on rural transformation.

It is noteworthy that Berdegúe's et al., (2013) definition of rural transformation is applicable to the dynamics and processes linked with ASGM and its function in the rural transformation process. Several studies reveal that agriculture is the most common economic activity within mining communities and rural areas in Sub-Saharan Africa, and there has been a decrease in agricultural output due to ASGM operations (Hilson, 2016; Laari, 2018; Abbiw, 2020; Brugger & Zanetti, 2020). Moreover, the arrival of Chinese miners and other groups of people such as university graduates, politicians, and middle-income earners, who are primarily urban dwellers, aligns with the dependence of rural societies on "outsiders" during their transformational process. Additionally, other studies have shown how rural mining communities exhibit some cultural characteristics of urban areas due to the ASGM boom in Sub-Saharan Africa and Ghana. For instance, there has been significant infrastructural development to cater to the growing demand for housing and other social amenities, including education (schools) and

health (hospitals), due to the rise in population density (Baah-Ennumh, 2015). The cost of living has also increased, and there has been a surge in social vices such as armed robbery and prostitution, which are typically associated with urban areas (Hilson, 2013; Addah, 2014; Tejan-Sie, 2020).

Berdegúe et al. (2013) posit that the rural transformation process is part of a broader structural change that affects the entire country, resulting in a decrease in the relative importance of agriculture in the overall economy and a corresponding increase in industry and services. This *wider structural change* may include the ASGM boom due to the global rise in gold prices and demand, which has had an impact on the decline of agriculture's relative weight in the overall economy. For instance, the decline in cocoa farming and exports from Ghana can be attributed to the prevalence of ASGM operations in rural areas, which reduces the availability of labour for cocoa farmers and increases the cost of hiring willing labourers, thereby hindering cocoa farmers from maximising production (Onumah et al., 2013)

The literature contains a range of debates regarding the role of ASGM in rural transformation. Some argue that ASGM is a means of transforming rural areas away from traditional agrarian patterns (Bryceson, 1996; Lahiri-Dutt, 2018), while others view it as a complementary activity that is intertwined with agriculture (Berdegúe et al. 2013; Hilson & Garforth, 2012). This debate has led to a discussion of *de-agrarianisation*⁸ versus *diversification*. Proponents of de-agrarianisation argue that non-agricultural rural employment (NARE) is a desirable alternative to farming due to the constraints on land availability (Bryceson, 1996). However, other studies have classified ASGM as a livelihood/survival strategy for rural populations. Research conducted in Burkina Faso revealed that two out of three households in rural areas had at least one family member engaging in ASGM. Similarly, in rural households in Ghana, diversification tends to occur between family members rather than within households. This thesis considers ASGM as a livelihood/survival strategy, in line with the arguments put forth by Brugger & Zanetti (2020).

3.6 Operationalisation of the Theoretical Framework

The framework and approach for identifying and understanding institutional weakness (see *Table 2*) and its impact on rural transformation are highly relevant to this study's objectives. As previously noted, Brinks et al. (2019, p. 7) argued that the lessons learned from institutional

⁸ (Bryceson, 1996)

weaknesses in Latin America apply to Sub-Saharan Africa. The literature on Africa and institutional weakness confirms Brinks et al.'s (2019) claim. Thus, the theories of institutional weakness in Africa and Latin America are deemed synonymous in this context and will form the basis for identifying and analysing the factors that enable Chinese participation in Ghana's ASGM sector and the challenges associated with its regulation. Moreover, the concept of rural transformation by Berdegúe et al. (2013) is employed to examine the impact of Chinese participation in ASGM on rural transformation by discussing how institutional weaknesses influence change within mining communities and the ASGM sector.

Table 2. Types of Institutional Weaknesses

Type		Description
Insignificance		An institution which has zero ambition and does not change the behaviour of actors in any way if rules are fully enforced or not.
Noncompliance	Type I: Nonenforcement	An institution which specifies the behaviour of actors, but officials do not or fail to enforce rules systematically. Example: <i>Window dressing institutions</i> (Levitsky & Murillo, 2013).
	Type II: Nonpunitive enforcement	Rules are enforced, and sanctions are applied but are too weak to achieve the preferred behaviour of actors.
	Type III: Weak State Capacity or Societal resistance	State officials seek compliance but lack the capacity and societal cooperation to achieve compliance.
Instability		When rules change at an unusually excessive rate preventing actors from developing expectations around them.

Source: Brinks et al. (2019, pp. 26–27).

Chapter 4

4. Methods

4.1 Introduction

This section provides a comprehensive discussion of the methodology and approaches employed to examine the involvement of Chinese miners in Ghana's ASGM sector. It outlines the research design, data collection methods, sampling rationale, and data analysis techniques in detail. Furthermore, ethical considerations within the study are also addressed.

4.2 Research design

This thesis adopts a critical realist approach, which is a social scientific philosophy grounded in the truths of the world (McEvoy & Richards, 2006). This approach asserts that the world is real and independent of our perceptions of it (Mason, 2017, p. 9). By adopting a critical realist approach, the thesis aims to develop a deeper understanding and explanation of the causality between the selected theories and social processes in the field (McEvoy & Richards, 2006; Creswell & Poth, 2016). As critical realists argue, the choice of methods should be informed by the nature of the research problem or objective. In this thesis, the aim is to investigate the underlying factors that facilitate ASGM Chinese participation and its impact on rural transformation by examining the views and perceptions of local and Chinese miners, as well as stakeholders in Ghana's ASGM sector. However, the challenge of relying on participants' views or perceptions is the possibility of bias or misleading information (McEvoy & Richards, 2006). To address this, the study takes measures to ensure ethical conduct and to employ multiple sources of data to triangulate findings.

This thesis employs a case study research method, which is descriptive and explanatory, to investigate Chinese participation in Ghana's ASGM sector (Yin, 2012, p. 143). According to . Mason (2017, p. 11), researchers must adopt an investigative approach when engaging with the world they are studying. As a result, I approached the research process as a "stranger"⁹ remaining mindful of the cultural and institutional behaviours in the field, scrutinising every action and taking nothing for granted (Holliday, 2007). Given the investigative nature of the study, a case study is deemed more appropriate and relevant, as it enables the research to

⁹ Holliday (2007) demonstrates the essence of qualitative research through Schutz's (1976) phenomenology of the stranger approaching a new culture.

maintain the holistic and significant characteristics of real-life events, such as ASGM Chinese participation (Yin, 2009; Mason, 2017, p. 209).

4.3 Study site selection

The Western Region was purposely chosen as the study site (see *Figure 1*) because it is the most active gold mining region in Ghana. According to Owusu-Nimo et al. (2018b, p. 4), 10 out of the 14 active LSM companies in Ghana are located in this region. Additionally, Owusu-Nimo et al., (2018) note that the Western Region has the highest concentration of galamsey sightings in Ghana, with approximately 911 occurrences, and a notable prevalence of foreign participation, particularly Chinese miners.

Figure 1. Location of Western Region in Ghana



Source: GSS (2021).

4.3.1 Selected study area (Mpohor District)

The Mpohor district (see *Figure 2*) was purposely selected as a case study within the Western Region. The Western region is made up of 22 districts including the Mpohor district. Mpohor district was carved out of the former Mpohor Wassa East district in 2012 and established by a legislative instrument (L.I) 2019¹⁰. The district has four area councils (Mpohor, Manso, Adum Bansa, and Ayem) and 20 main towns with its capital being Mpohor. The district is in the south-eastern part of the Western region bounded by the Ahanta West district in the west, and the Wassa East district in the east. Mpohor's district covers a total geographic landscape of 542.533 sq. km with a total population of 52, 473 (GSS, 2021).

The Mpohor district is in a tropical climate zone that receives an average annual rainfall of 1500mm, which supports agricultural activities as the main economic activity of the district. The major cash crops grown in the district are oil palm and cocoa, with 50% of the employed population engaged in agricultural activities and 13% in mining and quarrying activities (GSS, 2014). The soil and geology of the district also favour mining activities, with rocks and soils such as the Lower Birimian and Tarkwaian underlying the district. The district is known for its gold deposits and traces of kaolin and iron ore, which has led to a surge in illegal ASGM activities in communities like Mpohor, Manso, and Adum Bansa (GSS, 2014).

In addition, the neighbouring Wassa East district is home to Golden Star Resources, a large-scale underground mine primarily owned by ChiefengJilong Gold Mining Co., Ltd, a Chinese gold mining company. This suggests that the proliferation of Chinese miners in the Mpohor district may have been facilitated by the pre-existing network and working class of Chinese miners in the area. Antwi-Boateng & Akudugu (2020, pp. 149–150) argue that the current Chinese miners in Ghana's mining sector serve as a convincing social network for prospective Chinese miners, and such networks have been found to facilitate the migration of Chinese miners by providing them with the necessary information and requirements to travel and settle down quickly upon their arrival in Ghana.

The selection of Mpohor district as the case study was strategic due to its position as one of the mining areas currently experiencing the emergence of ASGM Chinese participation in the Western Region. The study's aims and objectives align with this phenomenon's early stage, providing a unique opportunity to document and understand the factors that facilitate the

¹⁰ A legislative instrument in accordance with Article 241 of Ghana's 1992 Constitution and section 3 of the Local Government Act, 1993, Act 462 (*Mpohor District Assembly*, 2022).

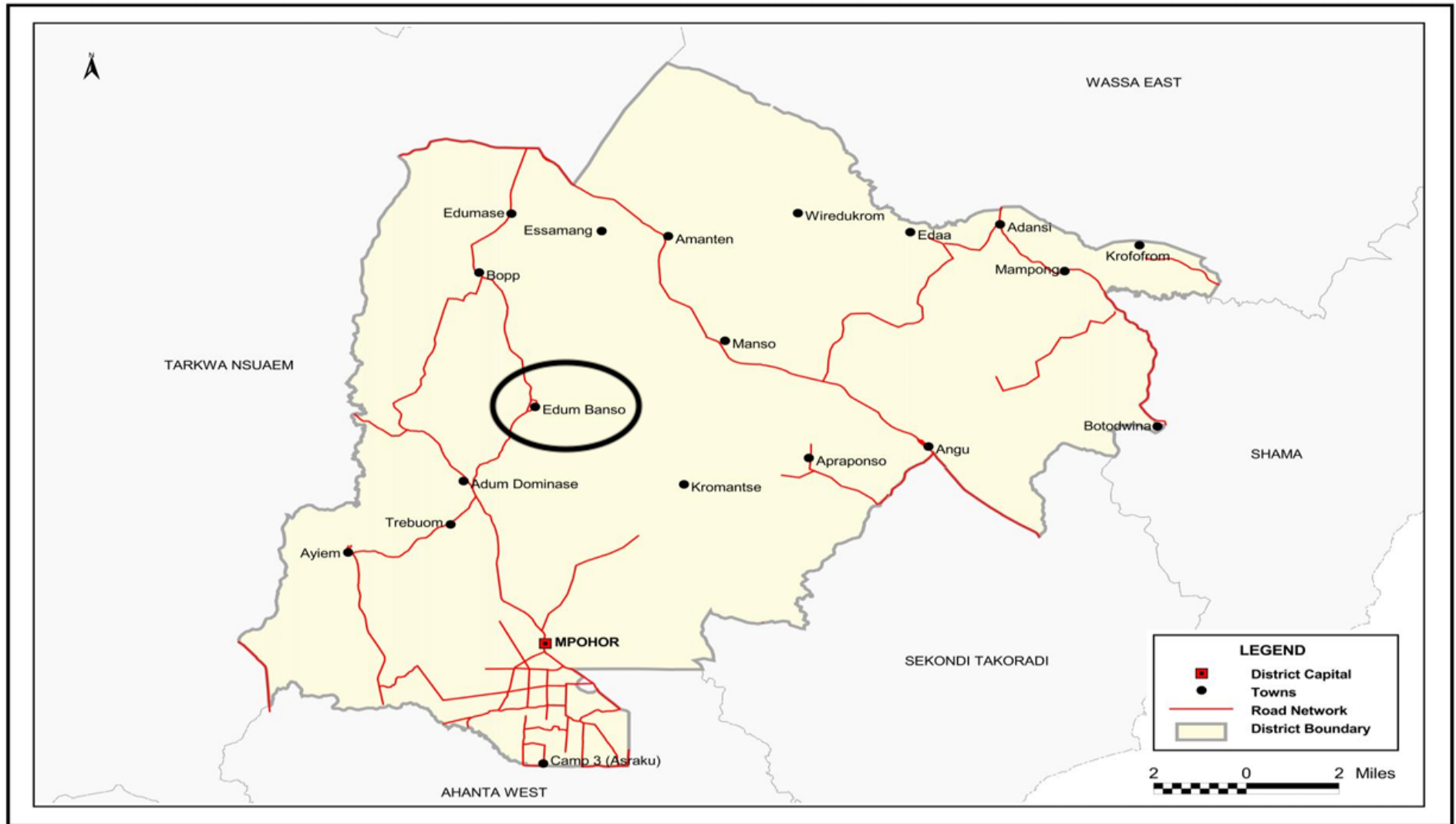
illegality of ASGM Chinese participation first-hand. The Adum Bansa community was conveniently chosen as the study site (see *Figure 3*) to document the participation of Chinese miners in ASGM due to its notoriety for illegal ASGM activities, including foreign participation. This selection is essential to provide insights into the dynamics of ASGM Chinese participation, which may not have been previously captured in the literature. This study's unique characteristics contribute to profound insights into various stages and aspects of ASGM Chinese participation in Ghana's mining sector. (Mantey et al., 2016; GhanaWeb, 2019a).

Figure 2. Location of Mpohor in the Western Region



Source: GSS (2021).

Figure 3. District Map of Mpohor with the location of Adum Bansa



Source: GSS (2021).

4.4 Data Collection

The thesis relied on both primary and secondary data sources. Secondary data was collected from online reports, journals, news articles, and academic research literature to facilitate the conceptualisation of the thesis. However, Efron and Ravid (2019) caution that collecting secondary data from online sources can be overwhelming. Therefore, to ensure the relevancy and quality of the data collected, specific keywords such as *artisanal and small-scale mining*, *galamsey*, *Chinese miners*, *institutional weakness*, *rural transformation*, and *Ghana* were used to enhance the electronic search of databases and refine the collected information.

The thesis primarily used interviews with key informants and miners (both local and Chinese) as a source of primary data. Interviews were chosen as they allow informants and respondents to provide their knowledge and experiences of the phenomenon in their own words, which aligns with the epistemological standpoint of the study (Gerson & Damaske, 2020). Semi-structured single interviews and focus group discussions (FGD) were the main methods of primary data collection. The use of FGD was intended to triangulate study findings and gain insights into the perspectives of a group of miners on the issue of ASGM Chinese participation in Adum Bansa (Liamputtong, 2011).

Due to the sensitive and controversial nature of ASGM Chinese participation in Ghana, I anticipated that some intended participants, especially local and Chinese miners, might approach the study apprehensively. Therefore, access to miners was established through gatekeepers. The traditional authority in Adum Bansa, which is perceived to be business associates with Chinese miners, served as a reliable source of access to study participants (Hilson et al., 2014a). The use of gatekeepers is a common strategy in research to gain access to sensitive or difficult-to-reach populations (Guest et al., 2013). By using traditional authorities as gatekeepers, I was able to gain the trust of local miners and Chinese miners, who might have been reluctant to participate in the study due to fear of legal repercussions or mistrust of outsiders (Hilson et al., 2014b). In-depth information about the study, supplemented with an introductory letter from the Graduate School of Lund University, was provided to the traditional authority to ensure authenticity and trust. Fieldwork activities, including data collection through semi-structured single interviews and focus group discussions, lasted for approximately two months (3rd February – 31st March 2023).

4.4.1 Interviews and participant sampling

For this study, I employed a purposive and snowball sampling strategy to select a total of 17 participants for interviews. This included 8 miners, comprising of 5 local miners and 3 Chinese miners, as well as 9 key informants from relevant institutions, including the Adum Bansa Traditional Authority (ABTA), Ghana National Association of Small-Scale Miners (GNASSM), Minerals Commission (MinCom), Ministry of Lands and Natural Resources (MLNR), Ghana Immigration Service (GIS), Chinese Embassy, Ghana Police, and an academic researcher who has written extensively on ASGM Chinese participation. However, only 16 participants were interviewed as the Chinese Embassy in Accra could not participate in the study for unknown reasons. I employed both sampling methods as I recognized the possibility of not having full knowledge of interested participants who were hidden during data collection (Guest et al., 2006). Referrals to interested participants were, therefore, essential to the outlook and outcome of the thesis. The distribution of participants is shown in *Table 3* below. However, an important limitation of this study is that all selected participants were male, which marginalises female sentiments and perspectives on the issue of ASGM Chinese participation. This also highlights the fact that the mining industry is a male-dominated industry.

I utilised semi-structured single interviews to gather data from local and Chinese miners, as well as key representatives from various institutions and agencies tasked with providing regulatory assistance for ASGM operations in Ghana. The selection of the MLNR, MinCom, GNASSM, ABTA, GIS, and Police was based on their relevance to the study's objectives. Furthermore, I interviewed a Ghanaian academic researcher who has extensively written on ASGM Chinese participation to obtain an in-depth understanding of the phenomenon. Additionally, an unstructured interview was conducted with a police officer at Tarkwa. The study classifies the selected institutional participants as elite participants, given their portfolio, capacity, and power asymmetry compared to the researcher (Empson, 2018, p. 59).

An FGD was conducted with a group of 5 local miners, lasting approximately 50 minutes. However, organizing an FGD with Chinese miners was challenging due to their heavy workload and busy schedules at the time. The interviews were mainly conducted in English and Fante, a local Akan language widely spoken in the Central and Western Regions of Ghana (Dorvlo, 2021). Due to language barriers, single interviews with Chinese miners were assisted by an “interpreter” - a local miner who has worked with Chinese miners for some time. They generally communicate using a special language that combines basic terms in Pidgin English

with Chinese phonetics. For example, Chinese miners refer to police cells as ‘*monkey house*’. Field notes were taken during all interviews, though most of them were recorded. I paid particular attention to body language and mannerisms that sparked my curiosity. This enhanced the debriefing and reflection sessions after fieldwork. Jarzabkowski et al., (2014) note that field notes are distinct from interviews and their transcripts because they capture and reproduce the feelings and sensations during fieldwork more meaningfully than just capturing conversations and their sequences. Therefore, field notes were a great complement to my recorded interviews.

Interview questions were focused on the reasons behind ASGM Chinese participation in the community, how to mitigate their involvement, regulatory challenges, impact on rural development, and recommendations for the ASGM sector. According to Gerson and Damaske (2020), interviews are effective in uncovering hidden social patterns and trends associated with ASGM in the study area and providing insights into miners’ experiences. However, this data collection method also has limitations, including the time-consuming process of transcription and analysis, which may limit the study’s sample size due to time constraints. Nonetheless, interviews remain a valuable method for tracing the dynamic process of ASGM Chinese participation and understanding the inner workings of the mining industry.

Table 3. Distribution of study participants

Participants	Type of interviews	Number of interviews	Place of interview
MLNR	Single semi-structured interview	1	Accra
MinCom	Single semi-structured interview	2	Accra office and Tarkwa district office
GNASSM	Single semi-structured interview	1	Accra
Academic researcher	Single interview	1	<i>undisclosed</i>
GIS	Single semi-structured	1	Accra
Ghana Police Service	Single unstructured	1	Tarkwa
Local miners	Single structured	5	Adum Bansa
Local miners	FGD	1	Adum Bansa
Rep. of Traditional Authority	Single semi-structured	1	Adum Bansa
Chinese miners	Single semi-structured	3	Adum Bansa
Total Participants		16	

Source: Author’s construct, Field data (2023)

4.5 Data Analysis

Data collected from interviews, field notes, audio recordings, pictures, and observations were analysed to answer the research questions (Mason, 2017). I used NVivo 12, a data analytical tool, to organise and manage the data. The interviews were transcribed, and a content analysis approach was adopted through coding to identify themes associated with ASGM Chinese participation and theories of institutional weakness and rural transformation (Kvale, 2011). The coding system was designed to preserve the authenticity and value of the well-formulated and coherent responses of the elite participants in the study. I familiarised myself with the trend and outlook of the generated data by frequently listening to interview recordings even after transcription. The study's generated data were stored on an external encrypted storage device for safekeeping (Aberbach & Rockman, 2002).

4.6 Ethical dilemmas

ASGM has become a controversial and politically sensitive subject in Ghana, and conducting research on it requires ethical considerations from the study's inception to its conclusion. The illegality associated with ASGM Chinese participation raises safety concerns for Chinese miners, local miners, especially those who collaborate with Chinese miners, and the safety of myself, the researcher. To ensure the safety of all parties involved, the study's aims and methods were thoroughly explained through gatekeepers, and formal consent was sought from miners. Miners were given the option to withdraw from the study whenever they wished, and they were assured of confidentiality and anonymity. However, Chinese miners were initially sceptical about the authenticity of the study and the researcher. Gatekeepers had to constantly reassure Chinese miners about the study's authenticity by providing a copy of the researcher's student card issued by Lund University, rather than a lengthy introductory letter from Lund University that they could not read.

The hostile military-styled approach¹¹ of the Ghanaian Government towards illegal mining has led Chinese miners to acquire weapons to protect themselves from "intruders" or strangers at their mining sites, which compromises the safety of researchers in the field (Masahudu, 2017). Therefore, prior to conducting fieldwork, gatekeepers were contacted and urged to reassure the Chinese miners of the authenticity of the study to prevent any misunderstandings. The gatekeepers provided assurances that Chinese miners only get defensive when they are being

¹¹ The Government of Ghana established military and police joint-led National Taskforces to flush out illegal miners in 2013 and 2017 (Antwi-Boateng & Akudugu, 2020, p. 142).

attacked and escorted the researcher to the site to ensure safety and cordiality between all parties involved. I remained vigilant and observant of the environment. To minimise potential biases based on my nationality as a Ghanaian, I approached the interviews from an objective perspective and constantly reflected on my positionality within the study.

Given the sensitive nature of the topic, it was crucial to ensure anonymity and confidentiality of all participants in the study. Pseudonyms were used to anonymise the identity of all informants, with each respondent randomly assigned a local name given to new-born children according to the day of the week they were born. In Ghanaian culture, every new-born child is given a special name based on the day of the week they were born, such as "Kojo" for a boy born on Monday in the Akan ethnicity or "Kodzo" for a boy born on Monday in the Ewe ethnicity (Akpebu adjah, 2011). An introductory letter from Lund University was circulated amongst various institutions to seek official consent for participation in the study, and all participants were assured that their involvement was entirely voluntary. While some participants had no issue with the study revealing their identities and personal experiences, anonymity and confidentiality were prioritised and maintained for all participants.

According to Mason (2017, p. 89), researchers should not only address traditional ethical issues such as informed consent, confidentiality, anonymity, and risk of harm to participants but also consider factors of personal gain. In addition to contributing to the literature, this study provides an opportunity for me to be awarded a Master of Science degree in Development Studies. Moreover, it supports the campaign against illegal mining in Ghana. These personal gains influenced the methodology and outlook of the study, and therefore, reflexivity is crucial. The study's aim is to explore the controversial topic of Chinese participation in ASGM due to its illegality, and as a researcher with a background and experience in the Development discourse, my analytical framework and outlook of the study may be influenced. Therefore, it is essential to acknowledge these personal interests and ensure that the research is conducted objectively.

Chapter 5

5. Analytical discussion of ASGM Chinese Participation

5.1 Introduction

This section of the study presents empirical findings and discussions gathered from primary sources. Findings are complemented with data from secondary sources and analysed in relation to the study's objectives and research questions within the lens of the theoretical framework. It mainly discusses findings and analyses the factors that facilitate ASGM Chinese participation in Adum Bansa.

5.2 Factors that Facilitate ASGM Chinese Participation

The participation of Chinese miners in Ghana's ASGM sector, including the Adum Bansa mining community, has been facilitated by a range of interrelated factors. To better appreciate and understand these factors, this study presents and discusses them in a sequential order of how they unfold and play out.

The thesis finds that there are primary factors that fuel the participation of Chinese miners in Ghana's ASGM sector. The foundational factor is associated with the local miners' drive for mechanisation and intensification, which is hindered by the lack of financial capital and technical skills. As a result, local miners tend to collaborate with Chinese miners who seem to have the necessary interest, capital, and technical skill. This leads to the issue of willing and opportunistic local collaborators who facilitate the entry, exit, accommodation, food, access to land, and security of Chinese miners at a fee, typically 15% of gold proceeds. Opportunistic individuals or entrepreneurs may be people who have no intention of mining but seek to make money from such mining operations and agreements. Since the activities and operations of these Chinese-Ghanaian collaborations are illegal, they are often 'overlooked' due to the widespread corruption among state actors and law enforcement agencies in Ghana.

5.2.1 Financial constraints and limited technical skills.

“Mechanisation is very important, and you know, mechanisation comes with money. You need to do proper investments into it before you are able to buy... An excavator for instance may cost you around USD250,000 to USD300,000 then you will also need some wash plants for you to wash more to be able to gain more. But the lack of funds is causing people to go in for these Chinese operators” (KII, Ghana National Small-scale Miners Association, Accra, February 13, 2023).

During an interview with a representative of the Ghana National Association of Small-scale Miners (GNASSM), who was referred to as ‘Kosi’ to maintain anonymity, it was found that the primary factor encouraging Chinese participation in ASGM activities is largely associated with the drive for mechanisation coupled with financial constraints. According to Kosi, almost all shallow-ore bodies in Ghana have been exhausted, leaving only gold deposits in deep-seated faults to be exploited. Therefore, efficient exploitation of these deep-seated gold deposits would require heavy investment in mechanisation. However, local miners who are predominantly poor or concession owners are mostly not able to generate the large sums needed to purchase equipment like excavators as shown in *Image 1*, washing plants, drilling machines, and dredging machines popularly known as *chanfangs*. This forces them to collaborate with Chinese miners who are financially capable to invest in mechanisation to efficiently exploit deep-seated ore bodies.



Image 1. Mechanised ASGM site in Adum Bansa with two excavators

Source: Enyam Joel Agbesinyale (2023).

According to an interview with ‘Koku’ (pseudonym), a technical officer at MinCom’s Tarkwa district office, financial constraints are a significant factor driving Chinese participation in ASGM in Ghana. He remarked; “*some small-scale miners don’t get money to pay the application fee which is sometimes even less than 5,000 Ghana Cedis. So how do they even rent excavators? How do they pay compensation? Financial constraint is a major challenge,*

that is why they bring in these illegal foreign miners to assist them” (KII, MinCom, Tarkwa, February 18, 2023). Koku stated that the lack of technical skills and knowledge of local miners is also a major factor behind their collaboration with Chinese miners, who are known to exhibit excellence in digging shafts, operating stopes, and operating other complex mining machinery. Chinese miners are also known for their ability to tap geological information, making them valuable collaborators for local miners who need to be sure about the mineral deposits before initiating mining operations. It is important to reiterate that these Chinese miners predominantly hail from Shanglin County in the Guangxi Zhuang Autonomous Region of China with a tradition and history of alluvial gold mining (Loubere et al., 2019).

According to ‘Kodzo’ (pseudonym), a technical officer at MinCom in Accra, the lack of funds, machinery, and technology in the ASGM sector has facilitated Chinese participation. He explained that the Mining Support Service¹² was introduced by MinCom to allow foreigners to support local miners with investments and mechanisation. Kodzo stated that *“From the support service level, that is where foreigners were allowed to support small-scale miners with capital because they didn’t have capital, machinery, they didn’t have, and technology”* (KII, MinCom, Accra, February 8, 2023). However, this support service programme led to an influx of Chinese miners rather than helping local miners. Kodzo shared how one company, Shanxi, had metamorphosed from a support service to a large-scale mining company and how the programme led to the influx of Chinese miners who engaged in illegal activities. From 2012, MinCom stopped the support service programme due to the influx of Chinese miners. The mining Support Service was institutionalised by the Ghanaian government to fulfil the desire for mechanisation in the ASGM sector due to financial and technical constraints faced by local miners. Chinese miners took advantage of the situation under the guise of mine support service providers to engage in ASGM, which contravenes the Minerals and Mining Law Act, 703.

In support of MinCom’s position, a researcher in Ghana, referred to as ‘Doc. Kojo’ (pseudonym), who extensively studies natural resource extraction, states that *"the lack of money and technology have worked together to facilitate Chinese involvement in small-scale gold mining operations"* (KII, Researcher, February 22, 2023). The lack of funds to invest in mechanisation is a significant motivator for local miners to seek collaboration and partnerships with Chinese miners. During an FGD with five local miners at Adum Bansa, they expressed

¹² Mine support service providers are registered companies who provide support with drilling and blasting services, and the supply of mining equipment and spare parts.

that the lack of funds was a hindrance to obtaining licenses, let alone renting or purchasing excavators. They agreed that collaborating with Chinese miners was a better option than approaching the government or financial institutions that have somewhat neglected them. Kofi (pseudonym) among them remarked, "*My family has land, there is gold in it, why should I die of hunger when the China man is willing to invest?*" (FGD, Local miner, Adum Bansa, February 16, 2023). This clearly shows that the lack of funds to invest in mechanisation is the primary driver or factor that triggers ASGM Chinese participation in Adum Bansa and Ghana in general. Local miners or concession owners are even willing to breach the law, which forbids foreigners from engaging in ASGM, to collaborate with Chinese miners because they lack the financial capacity to invest in machinery like excavators, wash plants, and drilling machines. This leads to local actors being willing to facilitate the entry of Chinese miners into the country.

5.2.2 Willing and opportunistic local collaborators/partners

“We have those we call agents that work with the Chinese and they will be brokering the deals for the Chinese, and all this is because of lack of investments or funds to go into mechanisation” (KII, GNASSM, Accra, February 13, 2023).

According to previous research, the participation of Chinese miners in ASGM is facilitated by local partners and collaborators (Hilson et al., 2014a). The Chinese Ambassador to Ghana, Shi Ting Wang, also acknowledged the role of local collaboration in the entry of Chinese miners into the industry. In 2019, he noted that Chinese miners rely on locals to identify potential mining communities and discover gold deposits, stating that "*We (Chinese) don't know where your gold is, Ghanaians help the Chinese to where they can find your gold*" (GhanaWeb, 2019b). Interviews conducted for this study confirmed the emergence of mutual "Ghanaian Chinese" partnerships in ASGM due to the lack of financial and technical capacity among local miners. While it is illegal for foreigners to engage in ASGM, these partnerships have proven to be financially beneficial for both parties. Consequently, the potential gains of such partnerships have attracted other opportunistic individuals, in addition to local miners, to collaborate with Chinese miners, who bring significant investments to the industry.

According to Kosi, a representative of GNASSM, there are instances where local speculators, who are not interested in mining, lease their concessions to Chinese miners for financial gain. He stated, "*There are some miners who do not want to go into mining, they are the speculators. They take the concessions and they do not want to do anything at all, but they want to make some money. So, they lease it out to Chinese miners*" (KII, GNASSM, Accra, February 13,

2023). Additionally, Kosi mentioned that some large-scale concession owners, who are in the process of acquiring licenses, lease out their concessions to Chinese miners. He claimed, *“I can tell you, about 65 - 80% of the land that is degraded belongs to this set of groups and they involve the Chinese on these lands. And they parcel it out as I have said and take percentages from them”* (KII, GNASSM, Accra, February 13, 2023). One may ask, what is the nature of such “Ghanaian Chinese” ASGM partnerships or collaborations?

A representative of Adum Bansa’s traditional authority (ABTA), known as ‘Nana’, provided a detailed description of the nature of Ghanaian Chinese ASGM partnerships. As mentioned earlier by Kosi of GNASSM, agents are individuals who facilitate deals on behalf of Chinese miners. These agents are typically local miners, landowners, or even farmers who are familiar with the mining environment and act as intermediaries for Chinese miners. Agents provide all necessary support to enable Chinese miners to operate comfortably, such as arranging airport pickups, securing lands, forging mining documents/licenses, organizing labour, accommodation, security, cooks, drivers, and other necessities. According to Nana, there is no direct contact with Chinese miners, as everything must go through the agent. He stated that, *“Even community members who have Chinese miners on their land do not get to see them or have access to speak with them. Everything goes through the black man (agent)”* (Translated from the Fante local language) (KII, ABTA, Adum Bansa, 15 February 2023). Once the agent has provided all the necessary services to the satisfaction of Chinese miners, there is a financial agreement between both parties.

‘Kwesi’ (pseudonym), a local miner and agent for three Chinese miners, confirmed the details provided by Nana regarding the nature of collaborations with Chinese miners. According to Kwesi, agents typically receive 15% of the total gold production as compensation for their services. He exclaimed, *“At the end of the day, I take my 15% cut in gold not in cash, in gold ooh”* (KII, Agent/Local miner, Adum Bansa, February 15, 2023). It appears to be a profitable business. The agent also revealed how some Chinese miners outsmart immigration officers by flying to Togo and crossing into Ghana through its porous land borders. ‘General’ (pseudonym), an officer at the Ghana Immigration Service (GIS) headquarters, confirmed that some Chinese miners enter Ghana through Togo and other neighbouring countries to avoid immigration checks. General explained, *“We are told that Togo has a free-visa arrangement with China. So, the Chinese don’t require to go through visa checks to get to Togo. So, people who think they may be returned upon arrival in Ghana choose to fly to Togo and come through the land*

borders. And you'll agree with me that our land borders are quite porous. The reason we now have checkpoints. We do intercept a lot of Chinese, recently in the Sogakope and Aflao areas, we did intercept a few. Some will even travel as far as the Northern part of Togo and connect through Bawku. On few occasions, we have intercepted a few of them there" (KII, GIS, Accra, March 16, 2023).

Kwesi, the agent, revealed the involvement of opportunistic individuals who lack experience in mining and are not interested in the mining operations. These individuals, according to the agent, include high-ranking Ghanaian officials who also act as agents and bring in Chinese miners under the guise of being business partners to engage in illegal ASGM operations. Supporting this claim, General, the GIS officer, confirmed that Chinese nationals typically enter Ghana by air on business visas, contrary to Aidoo's (2016) assertion that Chinese miners mainly arrive on tourist visas. He stated "*In the first place, we have to establish that they come here with visas either to engage in business or for investments... Visas are categorised, maybe you come with a business visa, or you come as a tourist. Mostly they come in on business visas. And when they come, with time they end up being at the mining areas"* (KII, GIS, Accra, March 16, 2023).

The collaboration of foreigners with locals in the ASGM sector, in violation of Ghana's Minerals and Mining Act 703, highlights the extent of non-compliance in this sector. Non-compliance can be attributed to either deliberate inaction or an inability to enforce the law and secure societal cooperation (Brinks et al. 2019). Despite the Ghanaian government's efforts to 'flush' out foreigners from the ASGM sector, including the establishment of a National Task Force, known as 'Operation Vanguard', in partnership with the Police, Military, and GIS in 2017 (Wireko-Gyebi et al., 2020), the problem of illegal ASGM continues to persist, with foreign participation still rampant. Tschakert (2009) suggests that this is due to weak enforcement, which is often caused by corruption and bribery, as interviews revealed.

According to Doc. Kojo, one of his field visits revealed that some task force officials had been corrupted by Chinese miners, resulting in weak or selective enforcement. This suggests that non-compliance with the Minerals and Mining Act 703 in the ASGM sector is not only due to state officials' inability to enforce the law but also to deliberate choices made by task force officials who have been bribed. Doc. Kojo shared, "*To our surprise, on one of our investigations, we discovered that they (Chinese miners) were corrupting the task force. It was interesting. They revealed that they give them (task force officials) money. When you give them*

money, they won't go to particular areas. They were bold enough to tell us that, here, the task force doesn't come here. This place, they won't come because we have paid them off." (KII, Researcher, February 22, 2023). Chinese miners realize that bribing state actors and enforcers is an easy way to manoeuvre their way out of trouble and are thus motivated to continue participating in the illegality. Bribes are commonly referred to as '*chop money*' by Chinese miners in the mining areas (Field observation, Adum Bansa, February 15, 2023). As a result, Chinese miners observe the institutional landscape in Ghana and find it attractive.

5.2.3 Corruptive environment

"Some (Chinese miners) also told us that when they give the money to Taskforce officers who go there, they quickly put the money into momo¹³ (mobile money), and the money enters their momo account. So that in case you arrest them (task officers), there is nothing on them to show that they have taken money, but I mean the money is already gone into their mobile money accounts" (KII, Researcher, February 22, 2023).

A study conducted by the United Nations Office on Drugs and Crime (2022) found that bribery in Ghana is most prevalent among police officers, followed by immigration officers. Corruption is primarily observed among the public sector, particularly law enforcement agencies and state actors. In 1972, Werlin (1972) suggested that traditional values, poverty, and low salaries were the root causes of corruption and bribery among public sector officials in Ghana. Werlin argued that the salaries of senior civil servants were comparable to those in industrialised economies, while junior civil servants' salaries reflected the local economy's production levels. Therefore, junior civil servants often engage in corruption by demanding gratuities before rendering services. Corruption interferes with law enforcement and has been identified as one of the primary drivers of Chinese participation in illegal ASGM activities in Adum Bansa and other mining areas in Ghana. Literature suggests that Chinese miners are willing to exploit the existing corrupt system to their advantage (Antwi-Boateng & Akudugu, 2020). There are instances of widespread corruption associated with Chinese miners, including encounters with immigration officers upon entry and their arrival in the community (Hilson et al., 2014b). Interviews and field observations corroborated this finding.

Nana, a member of Adum Bansa's traditional authority, explained the challenges faced by the community in dealing with the emergence of Chinese miners. He revealed that Chinese miners

¹³ Momo is a corrupted term of Mobile Money in Ghana

reserve a percentage of their mining profits for influential stakeholders in the district, including the police commander, DCE, and assemblyman. He stated, "*If I mention to you the percentages that the Chinese miners hand out to various people, you will be surprised. Police commander percentage, DCE percentage, Assemblyman percentage ... So, you even wonder why these people (Chinese miners) won't be arrested. The China people have settled all these people which makes them very confident. You can't even go and stop them because they feel safe to work*" (KII, ABTA, Adum Bansa, 15 February 2023). This suggests that Chinese miners bribe state actors who are supposed to enforce the laws, ensuring their safety and comfort while operating in the community. Local miners in a focus group discussion also shared experiences about how the Chief and elders of a community were given “percentages” by Chinese miners to facilitate or ensure their smooth mining operations.

A police officer and task force team member in Tarkwa recounted an experience where Chinese miners who were arrested were released within an hour due to orders from higher authorities. Media reports have also highlighted cases where military personnel are protecting and guarding illegal sites operated by Chinese miners instead of enforcing the law (GhanaWeb, 2021). Kodzo, the representative of MinCom in Accra, confirmed this in an interview, stating that most illegal foreigners are being guarded by the military and police, making it difficult for the regulator to access and report on such areas (KII, MinCom, Accra, February 8, 2023). This selective enforcement of the law, which appears to be influenced by higher authorities, creates a safe and comfortable environment for Chinese miners to operate illegally.

An important dimension to consider regarding the illegal mining activities of Chinese miners in Ghana is corruption from a “top-down” perspective, where high-ranking politically exposed persons or officials collaborate with Chinese miners to facilitate their illegal operations in rural areas. Politicians, particularly MPs¹⁴ representing mining constituencies, have been widely accused and associated with such illegalities. For instance, the MP for Tarkwa-Nusaem, a well-known mining area in Ghana, was recently accused by a sub-chief in the Western region of owning an illegal ASGM site with foreign miners (Citi Newsroom, 2022). Kosi of GNASSM explained why such influential and politically exposed people prefer to engage Chinese miners rather than local miners. “*They (politicians) get opportune percentages from the job that the Chinese do. Also, they don't like using Ghanaians because the Ghanaians may speak out and*

¹⁴ Members of Parliament

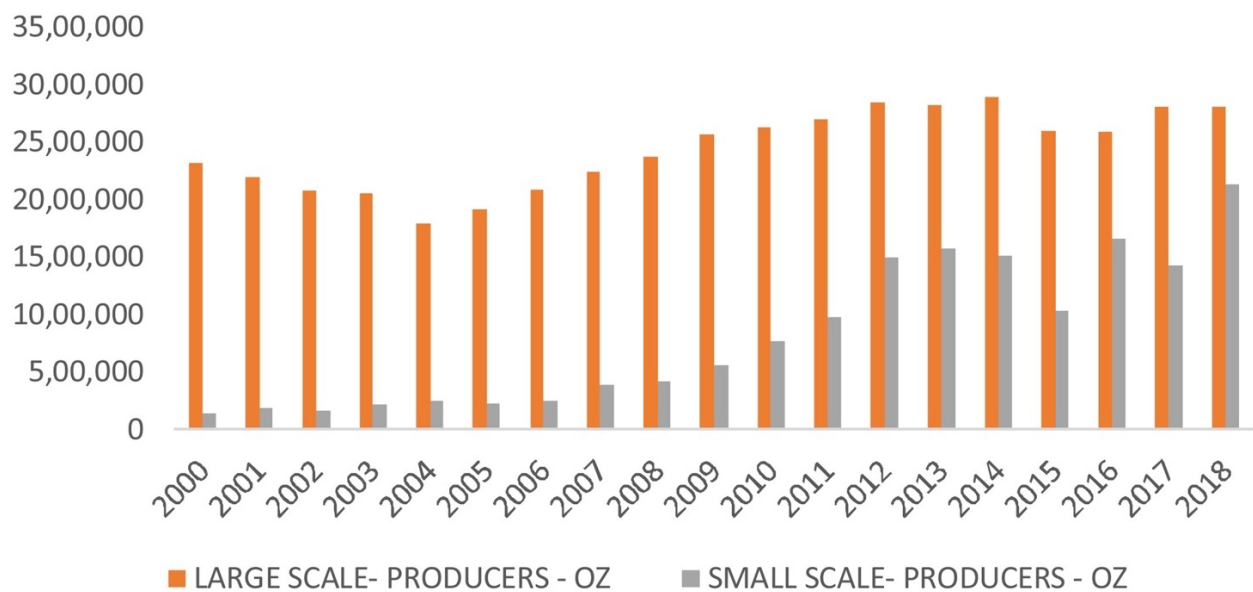
mention their names because they are politically exposed’ (KII, GNASSM, Accra, February 13, 2023), he explained.

Therefore, the failure of some state actors to enforce laws has significant implications due to corruption. Non-compliance arises from corruption and leads to institutional weakness (Brinks et al. 2019). As discussed earlier in *Chapter 3*, corruption is commonly associated with institutional weakness in Africa, including Ghana. Such corrupt practices motivate and attract other foreigners to engage in ASGM. For example, a Chinese miner, known as ‘Yin’ (pseudonym), explained why he chose to come to Ghana over other African countries. When asked why he chose Ghana, he responded with "*Ghana...good!*" (KII, Chinese miner, Adum Bansa, February 16, 2023). While the meaning behind "good" was not explicitly stated, it provides insight into how foreigners perceive Ghana and its ASGM sector. However, to contextualise this statement, a local miner known as ‘Kwame’ (pseudonym) from the neighbouring community of Mpohor, who works with Chinese miners, explained why Chinese miners say "*Ghana, good*" with a comparative statement. He stated, "*For example, there is a difference in mining operations between Ivory Coast and Ghana. The difference is that in Ghana, we are ‘free,’ we do what we like. In Ivory Coast, the laws work, but in Ghana the laws do not work. So, they (Chinese miners) prefer Ghana to Ivory Coast mainly because of the freedom. So, all the time, you hear them say ‘Ghana, good...Ghana, good...Ghana, good!’*" (KII, Local miner, Adum Bansa, February 16, 2023). This implies that both local and foreign miners are fully aware of the issues and weaknesses within the institutional landscape of the country, and they tend to exploit these weaknesses for their benefit.

The Government of Ghana imposed a ban on all ASGM operations in April 2017, which lasted until December 2018, to curb illegal mining activities (Hilson & Maconachie, 2020). Security officials, including the police, immigration, and army, were deployed to mining regions to enforce the ban and deal with non-compliant miners. However, despite this effort, total gold production from ASGM operations increased significantly in 2018, as shown in *Figure 4*. This increase occurred despite the clampdown on the ASGM sector during the ban period, which should have resulted in a decrease in production. The ban was, therefore, ignored and not respected by the ASGM industry, demonstrating a disregard for established institutions and rules.

According to Hilson (2017), some considered the ban to be irrational and insignificant in addressing the core issues of informality in ASGM. However, the government’s ban was undeniably disregarded, illustrating a hybrid of "window dressing" and weak institutions. In such a situation, actors disregard established rules, and society’s behaviour is not influenced by the institution due to low or no enforcement. Teschner (2012) asserts that a corrupt environment combined with selective enforcement results in a thriving informal ASGM sector that becomes increasingly difficult to regulate over time.

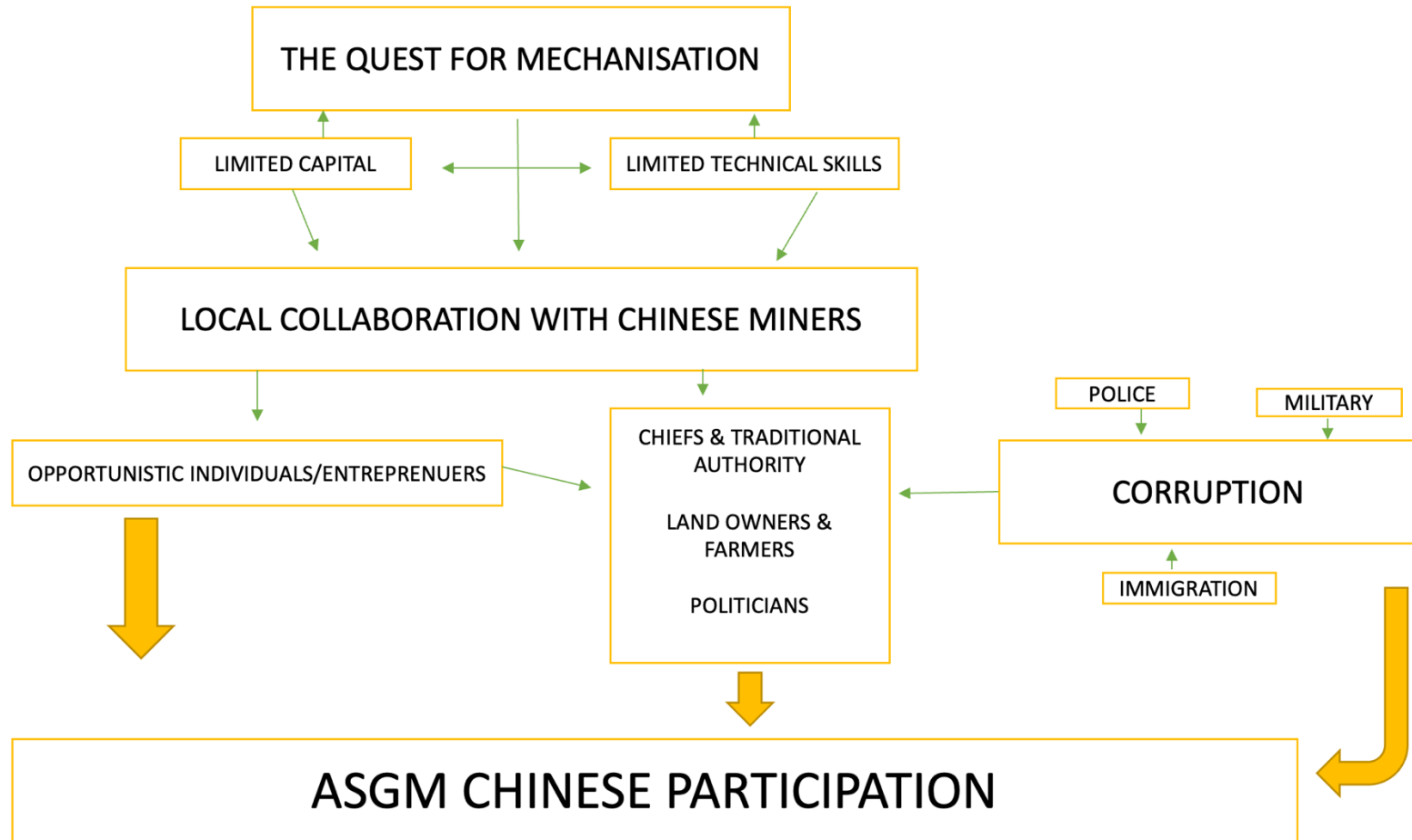
Figure 4. ASGM total production in Ghana from 2000 – 2018



Source: Minerals Commission (2019)

To summarise, this study has identified three key factors that enable Chinese participation in ASGM in Adum Bansa and Ghana: the lack of capital and technical skills necessary for mechanisation, opportunistic partnerships with Chinese miners, and a pervasive culture of corruption. These factors are interconnected and reinforce each other, as shown in *Figure 5* below.

Figure 5. Illustrative Analysis of ASGM Chinese participation in Ghana



Source: Author's construct (2023).

Chapter 6

6. Analytical discussion of Institutional Weaknesses

6.1 Regulating ASGM Chinese participation

This section will explore how relevant stakeholders and agencies have addressed the factors that facilitate ASGM Chinese participation in Ghana, based on the identified factors. The following approaches have been identified: militarised approach towards illegal mining, enhancing accessibility to finance, awareness creation, and encouraging local participation in ASGM.

6.1.1 The Militarised Approach

“A lot of the approaches towards dealing with Chinese miners have been militarised, threatening them, going after them, and it doesn’t work. They (task force) get corrupted anyway and nothing happens” (KII, Researcher, February 22, 2023).

The response to ASGM Chinese participation in Ghana was initially a militarised approach, which was a reactive measure. In 2017, ‘Operation Vanguard’ was established as a task force to ban all ASGM activities and operations. It comprised over 400 security personnel from the Ghana Armed Forces and the Ghana Police Force who addressed illegalities, including foreign involvement (Boateng, 2017). The operation led to the arrest of local and foreign miners, the destruction of ‘Chang Fa’ machines and burning of excavators (Hilson, 2017). The most recent task force operation, ‘Operation Halt II,’ also involved the burning and destruction of excavators and mining equipment by the military, as illustrated in *Image 2* (Citi Newsroom, 2021). Nevertheless, this approach has received criticism due to its questionable sustainability and inefficacy, as it focuses on using force to combat illegal ASGM, which is deemed unlawful. Hilson (2017) recommends that the strategy to combat illegal ASGM should instead concentrate on the drivers of informality, which, in this context, refer to ASGM Chinese participation. He suggests that it is crucial to ask key questions such as ‘Why’ and ‘How’.

Nana, a representative of ABTA, shared an experience that indicated corruption within the task force team, thus rendering their operations ineffective. Nana recounted, *"One time some Chinese guys went to buy diesel for their machine, and they were arrested on their way back and sent to the district police station. To my surprise, they were released just the next day. When I asked, they said they were cleared because of obvious reasons"* (Key informant interview, ABTA, Adum Bansa, 15 February 2023). This experience led Nana to lose confidence in the task force's operational activities, considering it irrelevant. Despite the efforts of the GIS to repatriate illegal Chinese miners (*Image 3* shows that 34 Chinese nationals had been repatriated to China in 2022), the militarised approach has not yielded the desired results, as ASGM production was highest in 2018 when the ban was still effective. A technical officer at MLNR acknowledged this and indicated that the ministry has re-strategized and is adopting a "bottom-up" approach from the grassroots to effectively tackle the issue of ASGM Chinese participation.

In response to the adverse effects of the Government's crackdown on ASGM, the President of Ghana launched the National Alternative Employment and Livelihood Programme (NAELP) in Tarkwa. This programme aims to support local miners and their families who have been affected by the taskforce's operations, while preventing them from engaging in illegal mining (MLNR, 2021). NAELP focuses on various economic activities, including land reclamation and afforestation, agriculture and agro-processing development, skills training and apprenticeship, sustainable community mining, ASGM support services and community development. For instance, the Minerals Development Fund¹⁵ (MDF) distributes a million hybrid oil palm seedlings annually to mining communities (MDF, 2018).

¹⁵ (Minerals Development Fund – Providing Financial Resources to Mining Community for Sustainable Development, 2023).



Image 2. Burning of excavators by military personnel
Source: Abedu-Kennedy (2022).

GHANA IMMIGRATION SERVICE NATIONAL ENFORCEMENT SECTION HEADQUARTERS UPDATE ON CHINESE NATIONALS - 2022	
TOTAL NUMBER OF CHINESE NATIONALS REFERRED (2022)	
BREAKDOWN ON OFFENCES	
I. ILLEGAL STAY - 14	
II. ILLEGAL EMPLOYMENT - 5	
III. ILLEGAL MINING - 9	
IV. OTHERS - 7	
TOTAL - 35	
NB: Out of the total number, thirty-four (34) have been since repatriated to their home country, China.	

Image 3. Repatriation of Chinese nationals in 2022
Source: Ghana Immigration Service (2023).

6.1.2 Enhancing access to finance

“Now, the Minerals Commission and us (GNASSM), we are working with other banks for us to be able to get the sort of investments, in terms of financial assistance for small-scale miners” (KII, GNASSM, Accra, February 13, 2023).

Access to finance has been identified as a significant factor influencing Chinese participation in Ghana’s ASGM sector. To address this challenge, various stakeholders and agencies have initiated initiatives to provide financial assistance and support to local small-scale miners, thereby discouraging collaboration with foreign miners. Kosi, representative of GNASSM, stated that the government, in collaboration with MinCom and some financial institutions, has established avenues to provide financial assistance for local miners. *"Through this financial assistance, we have Stanbic, which has helped many small-scale miners with loan agreements,"* he said (KII, GNASSM, Accra, February 13, 2023). Other Ghana-based banks, such as the National Investment Bank (NIB) and Société Générale (SG), have provided financial assistance to local miners through commercial loan facilities to enable them to purchase mining equipment and other materials to enhance mining operations (Hilson & Hilson, 2020).

A technical director at the Ministry of Lands and Natural Resources (MLNR) has revealed that negotiations with CAL Bank are underway to establish a financial assistance facility for local miners. He explained that once the challenges and factors driving illegal mining have been identified, the next step is to refer to solutions, including addressing the financial aspect of the problem. According to him, the ministry has initiated negotiations with CAL Bank to provide financing for small-scale mining operations, which is far advanced. This initiative is intended to discourage Chinese participation in the ASGM sector. In addition to this, GNASSM has facilitated hire purchase agreements with some mining equipment dealers to enable local miners to acquire machinery to intensify and mechanize their operations, Kosi revealed. These measures are aimed at providing financial assistance to local small-scale miners and discouraging collaboration with foreign

miners. (KII, GNASSM, Accra, February 13, 2023; KII, MLNR, Accra, March 1, 2023)

Koku, a representative of MinCom in Tarkwa, has revealed that the Minerals Income Investment Fund (MIIF) is providing financial assistance to local miners. He stated, "*We have the Mineral Income Investment Fund. They are sponsoring small-scale miners and their activities*" (Key informant interview, MinCom, Tarkwa, February 18, 2023). MIIF has launched the Small-Scale Mining Incubation Program (SSMIP) aimed at transforming locally owned ASGM operations into mid-tier or large-scale mining operations. The program offers funding for mining equipment solely for local miners, thereby discouraging foreign participation in ASGM (*Small-Scale Mining Incubation Program - MIIF, 2023*).

6.1.3 Sensitising and encouraging local community participation in ASGM.

The Ghanaian government has implemented various measures to promote local community involvement in ASGM. One of these measures is the Community Mining Scheme (CMS) introduced under the National Alternative Employment and Livelihood Programme (NAELP). The CMS was rolled out by the Government to allow community members to participate independently in ASGM and benefit directly from it. The policy also aims to enhance the working conditions of local miners and to reduce the rate of environmental degradation associated with ASGM. The introduction of CMS is in response to the observation that host communities merely benefit from mining activities due to high foreign participation. The Minister of MLNR, Samuel A. Jinapor (MP), emphasised that the CMS restricts foreign participation. He stated during the CMS launch in Tokwae and Asante Akyem South of Ghana that "*Do not let foreigners participate in it (CMS) at the expense of the natives of this town. If foreigners are found engaging in this scheme, I will revoke the mining license which I have signed as Minister*" (MLNR, 2022).

The Ghanaian government's efforts to reduce Chinese involvement in the ASGM sector also include the distribution of mercury-free machines called "*gold-katcha*" to local miners. These machines aid in mechanizing mining operations while

minimizing environmental damage, particularly to water bodies. Kosi of GNASSM explained that the provision of such equipment is crucial to discourage foreign miners' involvement in ASGM. *"In terms of getting the Chinese off, what you need is the equipment. And now we have the government coming in with this mercury-free technology i.e., the gold katcha to be given to the small-scale miners"* (KII, GNASSM, Accra, February 13, 2023), he stated. The gold katcha eliminates the need for harmful chemicals like mercury and can recover up to 90% of gold from ore. To meet the objectives of the Minamata Convention on Mercury¹⁶, 100 gold katchas were commissioned by the Ghanaian President to encourage the independence of local miners and limit foreign participation in the sector (Appiah-Dolphyne, 2023).

To engage and share information with small-scale miners, GNASSM has established the ASM Radio School in collaboration with the University of Mines and Technology (UMaT) in Tarkwa. Kosi, GNASSM's representative, noted the effectiveness of the ASM Radio School in raising awareness among local miners and the wider community about the need to preserve the sector for themselves. *"The ASM radio school, which the association is running with the University of Mines enables the sensitisation of members and community folks about the law and what it states in terms of Chinese and foreign participation. Awareness is created through the ASM radio school. Now we have three areas in which we work, the Tarkwa enclave, Eastern Region; we have the Bonsu enclave and the Ashanti enclave. All is to give information and create awareness"* (KII, GNASSM, Accra, February 13, 2023). The ASM Radio School, in collaboration with UMaT, aims to intensify education on mining legislation and activities to eradicate illegal practices and the misconception of ASGM through local radio stations in various mining communities. Kosi acknowledged that the radio school had been instrumental in addressing foreign participation in ASGM.

¹⁶ A global treaty to protect humans and the environment from the severe effects of mercury (*About Us | Minamata Convention on Mercury*, 2023).

6.2 Challenges associated with regulating ASGM Chinese participation.

The study has identified the primary approaches implemented by the Government and its associated agencies in regulating ASGM Chinese participation in Adum Bansa and Ghana as a whole. However, several challenges have been identified in regulating Chinese participation in ASGM, which are discussed in this section. These challenges include non-compliance, where institutional and regulatory frameworks are blatantly ignored; bureaucratic obstacles related to licensing, registration, and formalization processes; the emergence of a medium-scale mining sub-sector that falls outside the scope of existing institutional and regulatory frameworks; a dysfunctional relationship between stakeholders and regulatory agencies responsible for overseeing the sector; and the influence of Ghana's diplomatic and trade relations with China.

6.2.1 Sheer non-compliance

The predominant institutional challenge identified in regulating Chinese participation in ASGM, as revealed by the study, is the issue of non-compliance. This fact was corroborated by 'Kobla' (pseudonym), a local miner from Adum Bansa, who acknowledged the environmental damage caused by their mining activities. In his own words, when translated from the Fante language, he stated, "*I know that I am destroying the river here. When you go to our site, we have even diverted the river*" (KII, Local miner, Adum Bansa, February 16, 2023). This demonstrates that even illegal ASGM miners are aware of the environmental risks associated with their operations but still choose to engage in them.

Kobla further acknowledged his knowledge of certain protocols that prohibit mining near water bodies. Translated from the Fante language, he stated, "*The government says we shouldn't do alluvial mining or mine within 100 meters of a river. I am aware of this, but my family depends on it*" (KII, Local miner, Adum Bansa, February 16, 2023). This clearly highlights the issue of non-compliance, where individuals are fully aware of the laws and the consequences of violating them yet continue to engage in illegal activities due to their reliance on them for their livelihood or survival. This scenario underscores the challenge of enforcing

compliance in ASGM, and the complexities involved in addressing the issue of Chinese participation.

Kosi, a representative of GNASSM, also acknowledged non-compliance as a prominent challenge associated with the regulation and formalisation process of ASGM Chinese participation. "*Formalisation, we are still working on, and we look at it in two places. One; we have the legal framework already, which is the first leg of formalisation, but compliance to it becomes a challenge*" (KII, GNASSM, Accra, February 13, 2023), he stated. He further explained that many local miners are aware of the rules prohibiting foreigners from engaging in small-scale mining operations, but they flout these regulations because they feel neglected by the Government. Hilson & Maconachie (2020) provide insight into this issue by explaining the existing bias towards LSM operations in ore-rich Sub-Saharan countries. Governments tend to prioritize LSM operations, leasing out large concessions to LSM operators, which leads to a neglect of ASM operators. This bias is driven by the mineral rents and income that governments accrue from LSM operators.

Brinks et al. (2019) argue that non-compliance should not be solely attributed to a lack of enforcement, as it can also stem from the state's inability to secure societal cooperation, despite its willingness to enforce the law. They highlight that certain states may lack the administrative and fiscal capacity to effectively enforce laws, particularly those aimed at inducing widespread behavioural change and necessitating extensive monitoring (Brinks et al. 2019). For instance, the government's militarized approach to addressing illegal ASGM including foreign participation can be examined. While the government may demonstrate the determination to fully enforce the law through meticulous operations, it may face challenges in meeting the financial expectations of task force personnel in the field due to relatively low public sector salaries. Consequently, the government struggles to obtain societal cooperation, as some task force personnel can be easily corrupted by actors in the field, leading to a lack of law enforcement or selective enforcement.

6.2.2 ‘Long’ and Bureaucratic ASM licensing process

The process of obtaining a valid mining license or permit in Ghana is perceived as bureaucratic and costly by local miners, leading to a significant number of them operating without proper licenses. Kwesi, a local miner, shared his experience stating, *"I used to mine in Tarkwa, I visited the Minerals Commission office once to apply for a license. I was briefed about the process, it was expensive for me"* (FGD, Adum Bansa, February 16, 2023). Other local miners also expressed frustration with the lengthy and bureaucratic procedures involved, preventing them from completing the licensing process. MinCom argues that mining is a serious business and emphasizes the importance of due diligence in granting licenses. Kodzo, a representative from MinCom, stated, *"This is a natural resource; the process is such that it is supposed to allow a lot of people (stakeholders like the Environmental Protection Agency and Ministry of Lands and Natural Resources) to be involved. Environmental management cannot be overlooked. Even when we are not taking it away, we still face challenges with reclamation and other issues"* (KII, MinCom, Accra, February 8, 2023). The stringent requirements and involvement of multiple stakeholders in the licensing process aim to ensure responsible mining practices and environmental protection, reflecting the significance of managing Ghana's natural resources effectively. However, the complexity and costs associated with the process pose obstacles for local miners, leading to a considerable number operating without the necessary licenses.

According to Kodzo, a technical officer at MinCom, the perception among small-scale miners that the license acquisition process is lengthy can be attributed to several factors. While he acknowledges the presence of checks and balances inherent in bureaucratic processes, he explains that small-scale miners often divide the stages into numerous steps, ranging from 15 to 19. This perception of lengthiness is influenced by the circumstances faced by small-scale miners when they approach the licensing office. Kodzo elaborates, *"Before a small-scale miner enters your office seeking a place to work, you should know that firstly, they have already been working in the field. Secondly, they lack capital and have borrowed*

money with a promise to deliver gold within two weeks. Consequently, there is already pressure on them to produce gold. Therefore, when they come to the office, they are already engaged in fieldwork without a license. Thus, they view going through the process as a waste of time" (KII, MinCom, Accra, February 8, 2023).

Interviews further revealed that some small-scale miners secure loans from foreign individuals or groups, particularly Chinese miners who were previously involved in ASGM but have scaled back their operations due to the government's stricter approach. General, an immigration officer, explained, "*What I realized is that when we began operations in 2021-2022, you could find all of them at the mining site. However, as we initiated various operations like 'operation halt 1' and 'operation halt 2,' they started to withdraw. Instead, they began sponsoring Ghanaians in the mining community, although they were not present at the site"* (KII, GIS, Accra, March 16, 2023). These insights shed light on the reasons behind the perceived lengthiness of the license acquisition process, including the pressure faced by miners to deliver results and the involvement of foreign actors in providing financial support to Ghanaian miners.

MinCom has implemented the Mining Cadastre Administration System (MCAS), a digital application system, with the aim of streamlining the licensing acquisition process and reducing bureaucracy (Minerals Commission, 2023). Kodzo provided insights into this system, stating, "*Previously, you had to physically visit the district office. However, now you can submit your application online through the MCAS. When the application is received in the online portal, an officer review it. If all the requirements are met, we invite the applicant for a pre-licensing inspection"* (KII, MinCom, Accra, February 8, 2023).

However, some miners raise concerns that the online application process does not reflect their reality as local miners. Kwame expressed his frustration, stating, "*Look at the phone I even use, where and how am I going to use a computer to apply for this license?"* (Key informant interview, Local miner, Adum Bansa, February 16, 2023). These challenges are exacerbated by the high illiteracy rates in mining

communities, which attract opportunistic individuals with education and resources. These individuals navigate the licensing process and exploit the situation by acquiring licenses and concessions that they later rent or lease to foreigners. These criticisms highlight the need to ensure that the online application system is inclusive and representative of the local mining community, considering technological limitations and addressing the issue of opportunistic exploitation by certain individuals in the licensing process.

6.2.3 Emergence of a 'medium scale' mining sub-sector

The emergence of a medium-scale mining sub-sector has created institutional voids, which have made it challenging to regulate the existing small-scale mining sector. The Minerals and Mining Act, 2006 (Act 703) stipulates the necessary processes and practices that must be followed by all operators engaged in ASGM. According to the law, mineralised areas of less than 25 acres are considered ASGM operations. However, the legislation does not specify the type of investments and technology that qualifies under ASGM operations. This lack of clarity within the minerals and mining regulatory and institutional framework creates an institutional dilemma, which is exploited by opportunistic individuals and entrepreneurs. The absence of clear regulations has resulted in a void, where actors operate without adhering to the existing rules.

ASGM operations have evolved over time and now encompass a wide range of mining activities. These include unregulated manual labour such as gold panning in abandoned areas without any registration, as well as well-organised formal or informal operations that use complex machinery like excavators, drilling machines and explosives (Buxton, 2013). These organised ASGM operations resemble LSM operations, but are not comparable in terms of legal framework, labour size, capital investment, land size, production capacity and safety protocols. Similarly, they resemble typical indigenous ASGM operations, but differ in terms of mechanisation, land size, capital investment, labour size and safety. As a result, these organised ASGM operations occupy a space between LSM and typical indigenous ASGM operations, creating a "medium scale" mining sub-sector that is

currently unrecognised by the existing regulatory and institutional framework, resulting in institutional voids.

In an interview, Kosi, the representative of GNASSM, confirmed the presence of medium-scale mining operations and the challenges posed by the existing legal framework. He explained that the current law defines small-scale operations based on land size (25 acres) but does not specify the level of investment or mechanisation involved. As a result, many small-scale operations in Ghana would be classified as medium or even large-scale operations in other jurisdictions. Kosi emphasized that artisanal operations, characterized by manual labour and minimal mechanisation, are less common in Ghana, with most operations being semi-mechanised or fully mechanised (KII, GNASSM, Accra, February 13, 2023).

Considering the increase in medium-scale mining operations, it is important to examine the legal and institutional frameworks that apply to them. The current Minerals and Mining Act (2006) Act 703 does not fully address the evolving characteristics of ASGM operations, making it challenging to regulate the sector and its associated informalities, including foreign participation. In this context, following the analogy proposed by Brinks et al. (2019), the Minerals and Mining Act may be considered an *insignificant* institution, as its rules fail to address the specific features of medium-scale mining operations, let alone influence the behaviour of the actors involved, even if well enforced. This finding aligns with Teschner's (2012) argument that Ghana's ASM sector has outgrown its existing laws. Therefore, there is a need to update the legal framework to align with the current realities on the ground.

According to GNASSM, there have been discussions with the government to establish a formal 'medium scale' mining framework and sub-sector that would allow both local and foreign miners, such as the Chinese, to legally operate. However, there has been strong opposition to this proposal. GNASSM has expressed the view that foreign participation should only be allowed on merit, and not at the expense of local miners who require space to work. As Kosi stated, "we

need our space. Else, very soon, we will not have space to work" (KII, GNASSM, Accra, February 13, 2023). Thus, until an updated institutional and regulatory framework that fully addresses the realities and characteristics of the ASGM sector is established, an institutional void will remain, and a 'grey' area will emerge (i.e., 'medium scale' mining), which will hinder efforts to regulate the ASGM sector.

6.2.4 Dysfunctional Relationship amongst Stakeholders

The study uncovered evidence of dysfunctional relationships and collaboration issues among various stakeholders and agencies involved in the regulation of ASGM in Ghana. Through interviews and field visits, it was revealed that stakeholders such as miners, traditional authorities, GIS, GNASSM, MinCom, MLNR, political elites, and even members of the Inter-Ministerial Committee on Illegal Mining (IMCIM) engaged in a "blame game," shifting responsibility and accusing one another of the illegal activities within the ASGM sector.

During interviews, MLNR and MinCom criticized traditional authorities for their collaboration and permitting foreigners to participate in ASGM. Kodzo expressed his frustration, stating, *"On a daily basis, we talk, I have been on national television several times and talked about this. I even specifically..., in fact, I didn't shy from it. I mentioned that the Chiefs and landowners who are not assisting us when it comes to illegal mining...; somebody comes to your land to mine, you take schnaps, welcome money, and land use compensation without checking his license. Even if you don't know what a license is or looks like, our officers are around. We have shared their telephone numbers; you know where their offices are. Almost every mining community knows where our offices are, so why can't you call on our officer?"* (KII, MinCom, Accra, February 8, 2023).

As discussed in Chapter 3, African institutions are often characterized as "twilight" institutions (Lund, 2006). Consequently, prior to applying for a license from the state, permission and access to mining concessions must be negotiated with traditional authorities, as they are the rightful owners of the land. However, it has been widely reported that traditional authorities allow local and even foreign miners

to operate without licenses or assist in forging documentation for them (Hilson et al., 2014b). Earlier in this Chapter, it was revealed by Nana – a member of Adum Bansa’s traditional authority – that some local stakeholders (DCE, Police, and assemblymen) in rural communities were entitled to percentages from the proceeds of ASGM operations. Of course, he did not mention “Chief percentage” or give the impression that the traditional authorities were in on it for obvious reasons.

Kobla, a local miner, further insinuated that Chiefs, and their subordinates receive percentages as well. He recounted his experience, saying, “*I took some Chinese to Daboase, before that I saw the Chief himself. They (Chiefs) are not cheap; they understand the value of the gold and have dealt with so many people. He rejected the money and demanded a raise*” (KII, Local miner, Adum Bansa, February 16, 2023). Furthermore, the Asantehene¹⁷, Otumfuo Osei Tutu II, an influential traditional figure in Ghana has been on record in a six-minute video chastising and accusing some of his sub-chiefs of being beneficiaries of illegal ASGM (*galamsey*) operations. Translated from the Twi language, he said, “*For some of you, even illegal miners come to your homes and give you money. Because you have accepted the money you cannot even report the issue*” (GhanaWeb, 2022b).

The Traditional Authorities have also faced challenges with the state and its agencies. Like Nana from Adum Bansa’s traditional authority, who accused the District Chief Executive, Assemblyman, and even the Police commander of accepting bribes, influential Chiefs have accused the state and its officials of facilitating foreign participation in ASGM. The Asantehene, once again, criticized the government, alleging that they were aware of those involved in illegal mining activities but failed to apprehend them. In his own words (Translated from the Twi language), he stated, “*The government must take action. They know who is engaged in these illegal activities but are unable to arrest them. Currently, they are more focused on talking than taking action*” (GhanaWeb, 2022b). Furthermore, a representative from GNASSM attributed ASGM foreign participation to political

¹⁷ King of the Ashanti Kingdom

elites using their influence on bypass regulations. He explained, "*There are politically influential individuals who exploit their connections to engage Chinese miners, and in return, they receive a share of the profits*" (KII, GNASSM, Accra, February 13, 2023).

The practice of engaging in a blame game undermines the collaborative efforts and capacity of stakeholders to effectively regulate foreign participation in ASGM. Brinks et al. (2019) argue that robust institutions empower state actors to enforce regulations and ensure compliance. Therefore, it is crucial for state actors and stakeholders to work in harmony to achieve compliance in regulating the ASGM sector. General of GIS, also serving as a member of the IMCIM, emphasized the importance of sustaining collaborations among all stakeholders and agencies for efficient regulation of the sector. He stated, "*When you are putting an operation together and you don't really think through to bring all the relevant institutions or agencies together or diagnose to understand the significance of each agency, we will lose it, we'll lose it. We will spend so much and at the end of the day you arrest two or three people*" (KII, GIS, Accra, March 16, 2023), expressing his viewpoint strongly.

6.2.5 Integral diplomatic and trade ties with China

As discussed previously in Chapter 2, China has emerged as a dominant and major trading partner for Africa, with significant interest and investment in the region since the 2000s. It is noteworthy that diplomatic and trade relations between Ghana and China have spanned over six decades (Wang, 2018). China's investments in Ghana have had a considerable impact on various sectors such as healthcare, education, and telecommunications (*President Xi Jinping*, 2018). This point was further highlighted by Doc. Kojo during the interviews. He emphasized the heavy reliance of the Ghanaian government on income, technology, and loans from China. Additionally, he noted that Ghana's trade engagement with China is not unique, as many other African countries, like Zambia, find themselves in a similar situation (KII, Researcher, February 22, 2023).

As a result of Ghana's reliance and dependency on China, the Ghanaian government exercises caution and restraint when dealing with Chinese nationals involved in illegal activities, such as participating in ASGM. This is evident in the discontinuation of the trial and prosecution of Aisha Huang, a Chinese national widely known as the "galamsey queen" engaged in ASGM. The senior minister of the government, Yaw Osafo Marfo, justified this action by citing the diplomatic ties and level of investments the government has gained from China. He stated on record: *"Putting that lady (Aisha Huang) in jail in Ghana does not solve your economic problems. It is not going to make you happy or me happy, that is not important, the most important thing is that she has been deported out of Ghana"* (Citi Newsroom, 2019).

The senior minister further explained: *"We have a very good relationship with China. The main company helping to develop the infrastructural system in Ghana is Sinohydro, it is a Chinese company. It is the one that is going to help process our bauxite and provide about two billion dollars for us... so when there are these kinds of arrangements, there are other things behind the scenes"* (Citi Newsroom, 2019). These statements indicate that Ghana is reluctant to jeopardize its cordial diplomatic and trade relationship with China, even if it means compromising its own laws and regulations. It also highlights how state actors can face limitations in enforcing their institutionalized laws and rules due to relations with external actors or forces, resulting in selective or non-existent enforcement.

Brinks et al. (2019) argue that institutional weakness is perpetuated by ongoing economic and political volatility. In the case of Ghana, economic volatility is closely linked to this argument. As a producer of natural minerals heavily reliant on external capital and investment from China, Ghana finds itself in a vulnerable position when it comes to enforcing its laws and regulations, as it is hesitant to offend China, an important economic benefactor. The country's economy is currently experiencing a severe crisis due to external shocks such as the novel COVID-19 virus and the Russian-Ukrainian war, leading to a default in debt payment (Dzawu et al., 2023). In response, Ghana has initiated debt restructuring

negotiations with China to restructure its outstanding debt of US\$1 billion (Dzawu & Yinka, 2023).

During this critical time, the government and responsible state actors face vulnerabilities and limitations in effectively enforcing laws that could result in the imprisonment of Chinese nationals involved in ASGM operations. Doc. Kojo expressed similar sentiments, stating: "*If a Chinese government is going to give you a \$3 billion loan and they find out that you have arrested their nationals because they are involved in illegal mining in some village in Wassa Akropong, and you are showcasing them in the news every day, making it to the front pages, do you think they will be pleased to come and provide the loan? Obviously not!*" (KII, Researcher, February 22, 2023). Ghana's economic and diplomatic ties with China significantly influence the regulation of Chinese participation in ASGM, presenting a challenging and intricate situation to navigate.

Chapter 7

7. Analytical discussion of Rural Transformation

7.1 ASGM Chinese Participation and Rural Transformation in Adum

Banso

As discussed in Chapter 3, rural transformation refers to a process of extensive societal change in which rural communities reduce their reliance on agriculture by diversifying their economic activities or livelihoods. This transformation involves engaging in trade and acquiring goods, services, and ideas from external sources or distant locations, migration from villages to small and medium-sized cities, and the adoption of certain cultural characteristics associated with urban societies (Berdegué et al. 2013). It is worth emphasizing that the Mpohor district in Ghana, where Adum Banso is situated, relies predominantly on agriculture, with more than 50% of its population engaged in this sector. The primary cash crops cultivated in the area include palm oil, cocoa, and coffee (GSS, 2014).

Evidence gathered from interviews and observations indicates that there have been discernible impacts, both positive and negative, on economic and agricultural activities, changes in social dynamics, and notable physical developments in Adum Banso and neighbouring towns and districts due to ASGM and the involvement of Chinese participants.

7.1.1 Economic Impact and reduced dependence on Agriculture

Adum Banso relies heavily on agriculture, particularly cocoa and palm oil cultivation. However, palm oil is cultivated on a large scale of about 5000 hectares by Benso Oil Palm Plantation (BOPP) whiles cocoa is being cultivated by smallholder farmers in small to medium scale sized plantations where they usually intercrop with staple food crops and vegetables (Ankomah, 2019; *Mpohor/Wassa East*, 2023). Reports from Adum Banso suggest that smallholder cocoa farmers are particularly affected by the presence of ASGM activities due to the competition for land and the intensification of mining operations. Several studies have demonstrated the negative impact of ASGM on cocoa production in Ghana, with

environmental destruction and land and water pollution leading to reduced crop yields and threats to the livelihoods of cocoa farmers (Gilbert & Osei-Bonsu, 2016; Snapir et al., 2017; Ankomah, 2019; Osman et al., 2022). In some cases, farmers have been forced to sell or lease their land to Chinese miners, while others have had their land taken by force (Boateng et al., 2014; Antwi-Boateng & Akudugu, 2020). Nana, the Chief of Adum Bansa, corroborated these findings, saying: "*If this community dealt directly with the Chinese miners, we could have tasked them to address all our needs as compensation for our lands. But the black man (Agent) fronts for them and channels it through the assembly members and politicians. So even you the Chief, they (Chinese) do not come to ask for permission for land. They are always in the forest, they go and see the **cocoa farmer** for his land, negotiate, pay him off, and clear the land*" (KII, ABTA, Adum Bansa, 15 February 2023).

Further interviews conducted in Adum Bansa revealed instances where Chinese miners and their local counterparts forcefully took cocoa farmlands from farmers. Nana recounted an incident where he had to mobilise some youths to stop Chinese miners from encroaching on a cocoa farm whose owner did not agree to sell the land (KII, ABTA, Adum Bansa, 15 February 2023). This finding highlights the deliberate strategy employed by Chinese miners to trespass and damage farmlands, ultimately pressuring farmers to give up their land against their will. It also underscores the issue of violence and conflicts between rural communities and Chinese miners in mining areas, as previously argued by Aidoo (2016). However, Nana explicitly stated that there have not been any recorded instances of violent clashes or excessive conflicts between rural communities and Chinese miners in Adum Bansa (KII, ABTA, Adum Bansa, 15 February 2023).

Moreover, during my visit to the mining site, I encountered a cocoa farm that had been sold to the miners, as depicted in *Image 4* and *Image 5*. According to Kwesi, the agent involved, the owner of the cocoa farm willingly sold approximately one and a half acres of land for 100,000.00 Ghana Cedis, which is roughly equivalent to USD 84,000. Undoubtedly, this substantial amount holds great appeal for farmers and landowners. Kwesi further explained that selling farms, particularly cocoa

farms, has become a new strategy for farmers to quickly earn money, as they struggle to maintain their farms due to a lack of labour (KII, Agent/Local miner, Adum Bansa, February 15, 2023). He shared the following in the Twi language, which has been translated: *'The owner of this farm sold it to us because he was in desperate need of money. I recall him mentioning that he couldn't afford to hire labour for weeding and harvesting anymore, as everyone is now engaged in galamsey'* (KII, Agent/Local miner, Adum Bansa, February 15, 2023). *Images 4 and 5* provide visual evidence of the contamination and destruction inflicted upon cocoa farms in Adum Bansa, because of the mechanization and intensification methods employed by Chinese miners.

Although the thesis did not establish a direct correlation between the decline in cocoa production and ASGM, it did confirm that some households in Adum Bansa, including cocoa farmers, have diversified their income sources, indicating a reduced dependence on agriculture and potential implications for the community's economic landscape. Among the five miners I interviewed, Kofi, a local miner, revealed that ASGM has become financially lucrative in the community due to the Chinese miners' utilization of efficient technology, enabling them to extract more gold. As a result, Kofi, who is not a cocoa farmer but engages in other forms of farming, is attracted to participate in ASGM as a *karman*, a term referring to laborers at ASGM sites, during the off seasons to supplement his income. This strategy is seen as a means of survival, as described by Brugger & Zanetti (2020).



Image 4. A degraded cocoa farm due to ASGM operations in Adum Bansa

Source: Enyam Joel Agbesinyale (2023).



Image 5. A cleared cocoa farm ready for ASGM operations in Adum Bansa

Source: Enyam Joel Agbesinyale (2023).

7.1.2 Social Changes in Adum Bansa

The participation of Chinese miners in ASGM has brought about significant social changes in Adum Bansa. One notable transformation is the normalization of gambling, which was not a common practice in the community before the arrival of the Chinese miners. Nana revealed that gambling centres and gaming slot machines, introduced by the Chinese miners, have become prevalent in the community. He mentioned that the Chinese miners establish casinos and gaming centres, featuring games where individuals can place bets and spin reels. These establishments are often hidden in kiosks at corners to evade strict scrutiny. Nana emphasized that the presence of these gambling and gaming machines exploits the youth and exacerbates their economic challenges (KII, ABTA, Adum Bansa, 15 February 2023). It is important to highlight that the introduction of such gambling slot

machines is more commonly associated with urban areas rather than rural communities like Adum Bansa.

According to Berdegué et al. (2013), rural transformation occurs when rural communities become reliant on "outsiders" or distant entities for trade, goods, and services, and adopt certain cultural characteristics of urban societies. In the case of Adum Bansa, as a rural community, its dependence on external actors like Chinese miners has led to the introduction of gambling and gaming slot machines typically found in urban areas.

Other studies conducted by Antwi-Boateng & Akudugu (2020) provide further evidence of the prevalence of gambling and gaming slot machines in rural mining communities in Ghana. Their field studies conducted in the Talensi District of the Upper East Region reveal that these slot machines are manufactured in China and strategically placed within mining communities to attract residents who are eager to strike it rich. The interview with Doc. Kojo supports these findings and sheds light on the detrimental impact of gambling addiction on the youth in such communities. He explains that many young people develop a habit of gambling, viewing it not just as a recreational activity but as a way of life and a means to make money (KII, Researcher, February 22, 2023). This trend has become a major concern, particularly in small towns and villages where the Chinese miners have operated. The establishment of gambling centres and the operation of gaming slot machines generate substantial illegal gambling profits, which ultimately leave the country (Antwi-Boateng & Akudugu, 2020). This financial outflow has negative implications for the local economy and contributes to the perpetuation of poverty in these mining communities.

In an unexpected twist, this thesis uncovers a significant role played by casinos and gambling slot machines established by Chinese miners in the gold trade and financial activities of the country. According to Kwesi, the agent representing the Chinese miners, all the refined gold produced by Chinese miners is sold to casinos, which are then involved in the illegal exportation of the precious metal out of

Ghana. He further reveals that the Chinese miners operate their own independent financial system, separate from the local rural banks in the community. He also added that Chinese miners regard Kumasi as the financial capital of Ghana because the Ashanti Region is a hub for most mining areas. (Translated directly from the Twi language): *“They (Chinese miners) sell their gold in Ghana, the casino-casino-casinos you see around buy the gold from them. Every Casino in Ghana has a Chinese gold buyer in there. So, after refining, gold is taken directly to the casino. The Casinos are like the banks for Chinese miners in Ghana. That is where all their financial activities take place like the one in Bonsa”* (KII, Agent/Local miner, Adum Bansa, February 15, 2023), he confidently said. This raises questions about illicit financial flows (money laundering and the illegal exportation/smuggling of minerals) which must be investigated by state authorities.

To properly articulate and clearly explain this phenomenon, the agent likened the Chinese casino system to how Southern-American drug cartels operate in movies. (Translated from the Twi language): *“You don’t understand, like when you go to Colombia, the big-big spots where they sell drugs and traffic girls for prostitution, that is where all the deals and business meetings take place. It is the same for these casinos. That’s where all the gold and money go, it is their everything”* (KII, Agent/Local miner, Adum Bansa, February 15, 2023), he explained. This claim was verified by a friend who doubles as a lawyer representing some of these Chinese miners in court. Most importantly, these are typical urban cultures and characteristics which are actively underway in rural societies like Adum Bansa and other mining communities in Ghana due to the active participation of Chinese miners in ASGM.



Image 6. Gambling slot machines in Zamashegu, in Ghana's Northern Region

Source: Noah Fowler (2017).

7.1.3 Physical and infrastructural development in Adum Banso

Findings from observations and interviews indicate that the Mpohor district including Adum Banso has seen significant infrastructural development due to the economic benefits and gains associated with ASGM Chinese participation. Nana explained how some individuals with sufficient capital have taken advantage of the ASGM Chinese participation situation to construct accommodation facilities like guest houses in the community to house these Chinese miners. (Translated from the Fante language): *“There is one guesthouse just here, it was built quite recently, and it was fully occupied with Chinese guests. They used the guest house like a rented apartment until they moved out recently. If not for these Chinese guys, I doubt that guest house would have been built, because who is going to be there?”* (KII, ABTA, Adum Banso, 15 February 2023), he questioned.

Additionally, the interview with Doc. Kojo confirmed Nana’s sentiments. Doc. Kojo also shared experiences during his research about how the economic impact of ASGM Chinese participation translated into physical and infrastructural

development for the host mining communities. *“Due to its economic impact, the landscape tells you a story. New buildings, new structures, shops, and many other things sprang up, because of the money that they generated. There was a time that you could see a lot of cars on the road, especially between Wassa Akropong and Obuasi, that stretch. A lot of cars! Sometimes you are amazed and ask yourself, how could this car be operating on this road? Some cars that you expect to see in Accra or Tema, Highstreet is in Wassa Akropong somewhere, because they make so much money. And then, at some point, the whole thing fizzled out because gold is a finite resource. When it is finished, it is finished, there is nothing you can do. So, after a period, you go there, and the place looks very abandoned. The building is there with maybe just one or two people in it”* (KII, Researcher, February 22, 2023), he narrated. This implies that the mere presence Chinese miners of in the rural areas facilitated some form of physical development. Doc. Kojo further added that there was a rise in the cost of living in some of these mining communities due to the presence of Chinese miners. *“It (ASGM Chinese participation) also affected rent, access to accommodation went up, some places teachers could not afford because they were competing with the Chinese miners who brought a lot of money. The prices of food, vegetables, and all of that went up”* (KII, Researcher, February 22, 2023), he remarked.

Fascinatingly, I saw a very nice and well-constructed school on the way to Adum Bansa from Mpohor, see *Image 7*. The name of the school was “Ghana-China Friendship School”, very interesting. The Headmistress of the school, whom I briefly spoke to mentioned that the school was built in 2009, which was around the climax of the gold rush. However, there is no evidence to suggest that this school was established simply because of ASGM Chinese participation in the district. The school’s Facebook page states that the school was established by the Ghanaian government in collaboration with the Chinese government. However, this thesis considers the establishment of “Ghana-China Friendship School” as a strategic development to enhance Chinese receptivity and soft power in the Mpohor district. As Antwi-Boateng & Akudugu (2020) argue, China has enhanced its receptivity

and soft power influence in Ghana via investments, trade, and donor support. In conclusion, it is important to note that Adum Bansa in the Mpohor district has undergone some form of rural transformation where the dependence on agriculture for survival has been limited, and the rural society exhibits characteristics of urban societies like gambling, high cost of living, and the significant development of infrastructure.



Image 7. Ghana-China Friendship School at Mpohor

Source: Enyam Joel Agbesinyale (2023).

Chapter 8

8. Conclusion

8.1 Further Discussions and Reflections

The aim of this thesis was to investigate the factors that enable Chinese participation in Ghana's ASGM sector and its impact on rural transformation. To achieve this, three sub-research questions were formulated. The first question aimed to identify the primary factors that facilitate Chinese participation in Adum Bansa's ASGM sector. The second question aimed to identify institutional challenges associated with regulating Chinese participation in ASGM. The third question explored how Chinese participation in ASGM affects rural transformation in Adum Bansa.

Based on interviews and observations, this thesis has identified several inter-relational factors that facilitate Chinese participation in Ghana's ASGM sector, including Adum Bansa. Local miners are eager to mechanise and intensify mining operations but are often hindered by a lack of financial and technical capacity. As a result, local miners often seek assistance from external sources, such as investments or technical training. However, due to barriers associated with formalising the ASGM sector, some miners may seek assistance from sources outside of the relevant agencies, such as MinCom. Thus, local miners tend to collaborate with Chinese miners due to their financial and technical capabilities. According to Crawford et al., (2016), China's economic development has benefited rural dwellers, particularly Chinese miners, by providing them with capital to invest in Ghana's ASGM sector. Chinese miners can borrow up to \$25,000 from rural credit cooperatives or banks, which, when pooled together, is enough to invest in Ghana's ASGM sector. Local-Chinese collaborations have resulted in increased productivity and economic gains.

As a result of the productive and economic benefits associated with Local-Chinese collaborations, other individuals, such as politicians, government appointees, traditional authorities, entrepreneurs, university graduates, and farmers, who may not have initially intended to engage in ASGM, are becoming attracted. Some of

these individuals leverage their influence or exposure to acquire concessions or land, which they then lease to Chinese miners based on negotiated terms and agreements, where they are typically entitled to a percentage (15%) of gold proceeds. Overall, the ASGM sector in Adum Bansa and Ghana experiences the facilitation of Chinese participation through a complex interplay of factors, including the financial and technical capabilities of Chinese miners, the limitations faced by local miners, and the economic opportunities that arise from collaborations between the two groups.

The Minerals and Mining Act 2006 (Act 703) prohibits foreigners from participating in ASGM, yet their participation has been increasing in Ghana, leading to noncompliance (Crawford et al., 2016; Loubere et al., 2019). Consequently, this analysis indicates that noncompliance is exacerbated by widespread corruption among state actors and agencies in Ghana, which is due to institutional weaknesses within the mining sector. Theoretical literature has widely associated institutional weaknesses with Africa and its institutions. Luiz & Stewart (2014) suggest that Africa is a space of institutional voids, which facilitate corrupt behaviours in society. In this context, research question two aims to identify an institutional void or weakness within Ghana's mining and minerals sector, which is being exploited by opportunistic individuals through bribery and corruption.

The second research question highlights the challenges associated with regulating ASGM Chinese participation in Adum Bansa and other active mining communities in Ghana. The thesis reveals the emergence of a "medium scale" mining sector that operates between typical artisanal and large-scale mining operations, but lacks representation within Ghana's institutional and regulatory framework, posing a significant challenge. This situation creates a "grey area" for state actors, local miners, and Chinese miners. To address illegal mining, including foreign participation in ASGM, state actors have established the IMCIM and employed temporary measures such as ad-hoc military-style approaches (MLNR, 2019). However, progress in tackling ASGM Chinese participation has been limited due to the lack of historical working relationships and clear reporting structures among the

various ministries within the IMCIM, resulting in dysfunction and poor collaboration. This confusion contributes to corruption and further weakens enforcement efforts.

Consequently, the emergence of the "medium scale" mining sub-sector and the inadequacy of stopgap measures represent institutional voids or weaknesses that are exploited by local miners, opportunistic individuals, and their Chinese counterparts. Teschner (2012) argues that Ghana's ASGM sector has outgrown its laws as they do not reflect the current reality of mining operations, particularly the emergence of the "medium scale" mining sector. The thesis concludes that this institutional weakness or void may be a catalyst for non-compliance, specifically ASGM Chinese participation, which is further fuelled by corrupt behaviour and activities, leading to the selective or non-enforcement of laws. These findings regarding ASGM Chinese participation, facilitated by institutional weaknesses, have significant implications for rural transformation.

Research question three examines the impact of ASGM Chinese participation on rural transformation in Adum Bansa, with rural transformation defined by Berdegué et al. (2013) as extensive societal change whereby rural societies reduce their dependency on agriculture, depend on external sources for goods and services, and exhibit some urban cultural characteristics. The study found that the mechanised and intense nature of Chinese mining operations has significantly impacted agriculture in Adum Bansa. Firstly, the economic benefits associated with mechanisation and intensification have attracted many youths who would have otherwise served as farm labourers, resulting in decreased labour available for farmers to hire. Consequently, farmers are motivated to lease their farmlands to Chinese miners for a fee, further reducing available farmland.

Secondly, the findings indicate that Chinese miners often encroach upon farmland forcefully and strategically to gain access to land, sometimes without compensating the affected farmers. These activities have contributed to a shift from solely relying on agriculture for survival to depending on non-agricultural activities for livelihood

in Adum Bansa. This aligns with Berdegué et al. (2013) concept of rural transformation, which highlights the limitation of agriculture as the primary source of livelihood and the need for economic diversification. In summary, ASGM Chinese participation has led to changes in rural Adum Bansa, with implications for agriculture and livelihoods. The dependence on farm labour has decreased, and farmers have resorted to leasing their land to Chinese miners due to labour shortages. The encroachment on farmland by Chinese miners has further impacted agricultural practices. These findings support the notion of rural transformation as described by Berdegué et al., (2013), where economic diversification reduces dependency on agriculture.

In Adum Bansa and other mining communities in Ghana with a Chinese presence, the research identifies the presence of urban characteristics, such as the proliferation of gambling centres and slot machines. These characteristics are common due to the influence of Chinese miners in these areas. Remarkably, the thesis reveals that casinos, gambling centres, and slot machines play a significant role in the financial activities of Chinese miners. According to Kwesi, an agent representing Chinese miners, and a Ghanaian legal representative with experience in handling cases involving Chinese miners, a complex financial system independent of domestic and local financial systems has been established by the Chinese to facilitate illicit financial flows. Specifically, the gold refined by Chinese miners in Adum Bansa is sold to a gold buyer within a casino and later smuggled out of the country. Research indicates that Dubai serves as the main destination for smuggled West African gold (Naré et al., 2022).

From a theoretical perspective, the presence of gambling infrastructure and activities can be considered "urbanistic." Rural transformation occurs when rural societies, such as Adum Bansa, adopt urban characteristics or lifestyles (Berdegué et al. 2013). However, this form of rural transformation may not be desirable due to the exploitative nature of gambling activities on the local economy of Adum Bansa, as previously indicated by Nana, the representative of ABTA. In other mining communities, such as Kyebi in the Eastern region of Ghana, local authorities

have taken action by confiscating all gambling slot machines due to concerns about issues like underage gambling and its negative impact on school attendance (Kaiman, 2017).

Previous research has established a critical link between social vices such as drug abuse, armed robbery, and prostitution in rural mining communities due to the economic gains associated with ASGM and foreign participation (Agbesinyale & Owusu-Koranteng, 2008; Aidoo, 2016; Boadi et al., 2016; Tejan-Sie, 2020; Azumah et al., 2021). While not in Adum Bansa, during visits to other rural mining communities in Tarkwa-Nsuaem, widespread prostitution and drug abuse were observed. In one community, Kiankor, popularly known as ‘*Top*’, there was a dedicated section of wooden structures for sex workers referred to as ‘Sodom and Gomorrah’, with many of the sex workers being foreigners from Nigeria and Benin. In addition, there were issues of drug abuse, including urbane drugs like ‘crack’. These social vices are being replicated in rural mining communities largely due to foreign interest and participation in ASGM and the economic benefits associated with it. This undesirable form of rural transformation harms rural society.

In conclusion, the thesis emphasizes the need for state actors to adopt a forward-thinking approach in establishing responsive institutions and structures capable of effectively addressing rapidly evolving issues such as the emergence of a medium-scale mining sector driven by foreign participation. It is crucial for these institutions to align with the current societal realities to bring about desirable changes. Failure to do so may leave room for opportunistic individuals to exploit existing weaknesses.

8.2 Contributions to Theory

The thesis draws upon theories of rural transformation and institutional weaknesses in Latin America and Africa. Brinks et al., (2019) posit that institutional weaknesses arise from three key perspectives: non-compliance, insignificance, and instability (refer to Chapter 3). Brinks et al. (2019) explain that noncompliance may result from either (1) a deliberate decision by state officials not to enforce, or (2) the

incapacity of state officials to enforce or garner the cooperation of society. However, the thesis finds that noncompliance in the Minerals and Mining sector is reinforced in three other consequential ways.

Firstly, the study shows that an emerging medium-scale mining sector creates a grey area where miners operate under conditions not fully addressed by the Mineral and Mining laws (Teschner, 2012). Secondly, ad-hoc institutions and stopgap measures like the IMCIM have been established due to this novelty. These committees lack collaboration and coordination as their members have no historical working relationships, existing frameworks, or clear reporting structures, leading to dysfunctional relationships and confusion (Frimpong Boateng, 2023). For example, there have been violent clashes where soldiers have assaulted Government's task force personnel due to unclear structures and improperly laid out functions (GhanaWeb, 2022a). Finally, due to the lack of coordination and checks and balances, members of such committees are easily susceptible to corruption, which exacerbates noncompliance. In summary, the thesis advances the understanding of institutional weakness by suggesting that non-compliance in the Minerals and Mining sector stems not only from the state's incapacity to enforce laws or garner societal cooperation but also from the state's ineffective cooperation and coordination within its own activities, leading to a fertile ground for corruption.

On the other hand, the thesis exclusively challenges the concept of rural transformation where rural dwellers migrate to urban societies. The thesis shows that there is rather some form of urban interest in rural societies and their activities. Though this raises questions about urban-rural migration, it does not exactly represent the dynamics of urban-rural migration. For instance, there are some actors, like concession owners in urban areas who may have never stepped foot in the rural mining community but have a stake in the mining operation. This is a novel and interesting phenomenon which is emerging in the minerals and extractive sector and is quite synonymous with that of absentee farmers or land owners who live elsewhere from their farms but lease them out to others to farm (Petrzelka, 2014). Therefore, it is imperative to critically address and adequately explain such

emerging phenomena in the mining sector by further studying this phenomenon and developing new and extensive concepts to understand it.

8.3 New Findings and Further Research

Most importantly, the thesis discovers that gambling activities and infrastructure especially casinos, play a very meaningful role in the buying, selling, and smuggling of gold from rural mining communities like Adum Bansa. Furthermore, casinos significantly contribute to the development of an overarching “financial system” solely established by Chinese entrepreneurs. Kwesi, the agent of the Chinese miners referred to all casinos in the region as “Chinese banks”. These findings raise important questions about the trading and smuggling of gold extracted by Chinese miners and highlight concerns about rural poverty and empowerment. The thesis suggests that further investigation is necessary to explore the possibility of local operators and mining communities being disadvantaged in this process. This research topic may also be of interest to the metals and minerals certification industry, which should consider unconventional approaches to marketing "ethical" minerals to jewellers and invest resources in understanding the informal structures and settings in which local operators and rural mining communities operate (Hilson et al., 2018).

The thesis presents several new discoveries regarding the activities of Chinese miners in Ghana. One of the most interesting findings is that Chinese miners consider Kumasi, the second-largest city in Ghana, as the "financial capital" of the country, as it is strategically positioned between active mining regions and is home to a significant number of rural mining communities. This highlights the importance of exploring and mapping the spatial dynamics and activities of Chinese miners in Ghana to understand their influence on issues like poverty, labour, migration, and environmental sustainability. Further research is necessary to trace and predict the footprints of Chinese miners accurately.

The thesis highlights the need for further research on the role of Chinese miners within the broader ASGM value chain. While previous studies have explored

aspects such as the origin and motivations of Chinese miners in Ghana (Loubere & Crawford 2016), there is still a need for a comprehensive understanding of their activities in the ASGM sector. The thesis also emphasizes the importance of investigating local connections and networks between Chinese miners and their Ghanaian counterparts, as these relationships contribute to socio-economic transformation within mining communities. Furthermore, it raises critical questions about the beneficiaries of illegal ASGM Chinese participation in Ghana, extending beyond Ghanaian political elites to examine the involvement of political elites in China and the West. These aspects warrant further investigation to enhance the discourse on ASGM Chinese participation in Ghana and Sub-Saharan Africa.

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Appendices

Appendix A

Semi-structured interview guide **Interview guide for key informants**

Research topic: The alarming participation of Chinese miners in Ghana's artisanal and small-scale gold mining (ASM) sector.

Thank you for taking this interview. This interview is solely for academic purposes and shall last for 25-30 minutes. Hence, every information shared is being handled with extreme confidentiality and anonymity.

Introduction

1. How long have you been working with this agency/organisation?
2. What is your role within the agency/organisation?
3. Have you had any professional experience/interaction with the small-scale mining sector?

If yes, in what ways?

Factors that enable Chinese ASGM participation in the Tarkwa mining district

4. From where you sit, what comes to mind when you hear the term small scale mining?
5. How about Chinese participation in small-scale mining?
6. What has been your institution's posture towards foreigners engaged in small scale mining?
7. From your experience, what are the main factors that attract Chinese miners to participate in small-scale mining?
8. From your institution's perspective, what are the main factors that attract Chinese miners to participate in small scale mining?
9. What has your institution done about these?
10. Have you personally encountered Chinese miners?

If yes, where?

Challenges associated with regulating ASGM Chinese participation in the Tarkwa Mining district

11. What is the mandate of your institution as far as small-scale mining is concerned?
12. What processes must one follow to be a licensed and legal small-scale miner?
13. Has this process evolved over the period?
If yes, in what ways?
14. What has been the approach of your institution to regulate the participation of foreigners in small scale mining?
15. Has this approach yielded any results?
If yes, in what way?
If no, what should/can be done better?
16. From your experience what has been the main problem in regulating the participation of Chinese miners in small scale mining?
17. What is/has your institution doing/done about these problems?
18. What plans do you have in place to curtail this problem in the future?
19. As a technical expert, do you have any recommendations that could best address the participation of foreigners in small scale mining?

Semi-structured interview guide

Interview guide for Chinese miners in the Adum Bansa mining community

Research topic: An institutional weakness? – The alarming participation of Chinese miners in Ghana’s artisanal and small-scale gold mining (ASM) sector.

Thank you for taking this interview. This interview is solely for academic purposes and shall last for 25-30 minutes. Hence, every information shared is being handled with extreme confidentiality and anonymity.

Information

Age

Gender

Marital status

Number of Children if any

Occupation

Highest level of education (University/Senior High/Junior High/Primary)

Literacy level..... (Read only, Write only, Read & Write)

If Migrant, place of origin

Number of years lived in the community

Factors that enable Chinese ASGM participation in the Adum Bansa mining community

1. How long have you been mining?
2. How did you get involved in mining?
3. Do you engage in any other economic activity apart from mining?
4. Have you been engaged in mining activities in any other parts of the world than Ghana?

If yes, where and what did you mine (gold, diamonds, bauxite, iron, gemstones, etc.)?

5. Do you remember the first time you heard about Ghana?
If yes, how and what did you hear about Ghana?
6. How long have you been in Ghana?
7. How long have you mined in Ghana?
8. What influenced your decision to mine in Ghana?
9. Have you engaged in mining activities in any other mining communities in Ghana than this community?
If yes, where?
10. What influenced your decision to start mining in this community?
11. Do you live in this community?
If yes, how long have you lived here?
If no, where do you live?
12. Have you ever mined with local/native miners?
If yes, when, where, how, and why did you start mining with them?
13. What is the working experience and relationship like with local/native miners?
14. Do you currently mine with any local/native miners in this community?
If yes, how and why did you start mining with them?
15. Did you know anyone in Ghana before coming?
If yes, was the person Chinese or Ghanaian?
16. Did you know anyone in this community before coming?
If yes, was the person Chinese or Ghanaian?
17. Do you know of any organisations/middlemen that assists miners to get here?
If yes, are some miners indebted to these organisations/middlemen in any way?

Challenges associated with regulating ASGM Chinese participation in the Adum Bansa mining community?

18. Did it cost you to start mining in Ghana?
If yes, is it worth it?

19. Do you have an idea of the mineral and mining laws in Ghana?
If yes, which of them?
20. Are you aware small-scale mining is legally reserved for only Ghanaians?
If yes, how and why do you risk to mine in Ghana?
21. Did you ever know about this law before coming to Ghana?
22. Do you have any experience and knowledge on mining licensing and registration procedures in Ghana?
If yes,
23. Since you started mining in this community, have you witnessed any form of education about mineral and mining laws?
24. Have you had any encounter with any law enforcement agency on site?
(Police or Military)
If yes, what was the reason?

What ways does Chinese ASGM participation influence change (rural transformation) in the Adum Bansa mining community?

25. What was the state of mining in this community when you started mining?
26. Has there been any change in mining activities since you started mining in this community?
If yes, in what ways?
If yes, do you think this change is influenced by your participation?
27. Do you attribute these changes to your participation?
28. Have you experienced any form of violent exchanges or clashes on site?
If yes, with whom and for what reason?

Semi-structured interview guide

Interview guide for native miners of the Adum Bansa mining community

Research topic: An institutional weakness? – The alarming participation of Chinese miners in Ghana’s artisanal and small-scale gold mining (ASM) sector.

Thank you for taking this interview. This interview is solely for academic purposes and shall last for 25-30 minutes. Hence, every information shared is being handled with extreme confidentiality and anonymity.

Information

Age

Gender

Marital status

Number of Children if any

Occupation

Highest level of education (University/Senior High/Junior High/Primary)

Literacy level..... (Read only, Write only, Read & Write)

Number of years lived in this mining community

Approximate distance from your hometown to this mining community.....

Factors that enable Chinese ASGM participation in the Adum Bansa mining community

1. How long have you been mining?
 - How old were you when you started mining?
2. What influenced your decision to start mining?
3. Do you engage in any other economic activity apart from mining?
If yes, what economic activity?
4. Is this your first community you started mining?

If no, when & where did you start mining before this community?

If yes, when & what influenced your decision to start mining in this community?

5. At the time you started mining in this community, were there any foreign miners engaged in it?

If yes, can you recall where they came from?

6. Have you ever worked with (a) foreign miner(s) on site in this community?

If yes, where did they come from, and did they live in the community?

7. Did you know any of these foreign miners before working together?

8. What was the working experience and relationship like as compared to working with other native colleagues?

9. Apart from mining, were they (foreign miners) engaged in any other economic activity that you knew of?

If yes, what economic activity?

10. Do you have an idea about their (foreign miners) reasons for mining in this community?

11. In your opinion, how do you think foreign miners get access to mine in your community?

12. Do you know of any particular reason why they chose to mine in this community?

Challenges associated with regulating ASGM Chinese participation in the Adum Bansa mining community?

13. Do you see any problems with Chinese miners mining in your community?

If yes, why?

If no, why?

14. Are you aware small-scale mining is legally reserved for only Ghanaians?

If yes, has your attitude changed towards foreigners since you learned this?

If so, in what ways?

If no, do you find this law relevant/necessary?

15. In your opinion, why do you think this law is not effectively enforced?
16. Do you know about any traditional laws/regulations that govern/regulate mining activities in this community?
If yes, what law is it, and what does it say?
17. If any, does any of your traditional laws/regulations frown against foreign miners?
If none, what is the posture of your traditional authority towards Chinese miners?
18. Do you know about any of the laws that govern mineral and mining activities in Ghana?
If yes, which of them, and what have you heard/know about it?
If no, what is the reason?
19. Has there been any form of education about the mineral and mining laws in the community?
20. What of mining licensing and registration procedures, do you have knowledge of this?
If yes, what do you know about it, and do you have any experiences with it?
21. Do you have knowledge of any of the regulatory bodies/agencies responsible for instituting and enforcing the mineral and mining laws?
If yes, which of them?
If no, do you consider it relevant to know?
22. Have you had any encounter with any law enforcement agency on site? (Police or Military)
If yes, what was the reason?
23. In your opinion, how do you think the laws could be effectively enforced?

What ways does Chinese ASGM participation influence change (rural transformation) in the Adum Bansa mining community?

24. In your opinion, have Chinese miners influenced mining operations in this community?
If yes, in what ways have they done this?
25. Since you started mining, has there been any positives (economic, environmental, social) or less positives in the community attributed to mining activities?
If yes, can this be associated with foreign miners?
If no, do you think it would have been any different without foreign miners?
26. Has there been any violent clashes/exchanges on the mining sites since you started mining in this community?
If yes, what was the cause?
27. Do you think the participation of foreign miners in your community may have changed some aspects/structures of the community?
If yes, what aspects?



Graduate School
FACULTY OF SOCIAL SCIENCES

January 26, 2023

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Joel Agbesinyale

Katherine Anderson Ahlstedt
Programme Coordinator
Graduate School

To whom it may concern,

With this letter we confirm that Joel Agbesinyale, born April 16, 1997, is a student enrolled in the *Master of Science Programme in Development Studies* majoring in Development Studies, at Lund University, Sweden. The programme runs full-time for two years, from August 30, 2021 to June 4, 2023 and is 120-credits. Joel Agbesinyale, has so far completed 90-credits of the programme with good results.

Joel Agbesinyale, is currently register for the master's thesis course *SIMZ31: Master's (Two Years) Thesis in Development Studies, 30-credits* with a major in Development Studies this spring term 2023. As a component of the master's thesis course, Joel Agbesinyale, intends to conduct fieldwork in Ghana from February 6-28, 2023 in order to investigate the participation of Chinese miners in Ghana's artisanal and small-scale gold mining (ASM) sector. The student's thesis work is being supervised by Heather MacKay at the Department of Human Geography at Lund University.

Please do not hesitate to contact us if you have any further questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Katherine Ahlstedt'.

Katherine Anderson Ahlstedt
Programme Coordinator
Graduate School
Lund University

