IMPACT OF ILLEGAL MINING ACTIVITIES ON THE LIVABILITY OF PEOPLE: CASE STUDY OF ASANKRAGUA COMMUNITY IN WESTERN REGION OF GHANA

A Research Paper Presented

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DECLARATION

Candidates' Declaration

I hereby declare that this project work is the result of our own original research and that no part of it has been presented for another degree in this university or elsewhere.

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ABSTRACT

This study examined the impact of mining activities on the livability of people in Asankragua in Ghana using a qualitative methodology. Thirty semi-structured in-depth interviews were conducted with different members of the community to explore the impact of mining activities on the quality of life of community members in Asankragua and it environs.

The study concluded that, although mining creates some economic opportunities, it destroys the environment, socially disrupts and creates health related illnesses. Some major issues highlighted in the research include deforestation, pollution, erosion, loss of farmland and meagre infrastructural development. The study also highlighted high cost of living in mining areas, as well as the possible tensions between miners and farmers and the role of environmental justice movements. The study dives into how mining activities impact community livability from a local perspective, rather than solely looking at economic indicators.

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I would like to thank the Almighty God and my supervisors for their expertise, professional advice, and support during this research. Lastly, I would want to express our gratitude to my family, who provided all of the help I needed to get this far.

DEDICATION

To my mum Mrs Margaret Abrafi and uncle Mr kwadwo Asamoah I love you !!.

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CHAPTER ONE

INTRODUCTION

1.1 Background

Mining plays a vital role in many economies worldwide, particularly those with abundant natural resources like Ghana, a country endowed with abundant mineral resources such as bauxite, gold, manganese, and diamond, making it an attractive destination for both local and foreign mining companies after the passage of the 2006 minerals and mining Act (Nyarkoh and Yeboah 2022). Mining has been a significant economic activity in Ghana, contributing to employment, revenue, technological advancement, and foreign exchange earnings(Campbell,2013).

Despite these numerous benefits, people feel that the quality of their life has been negatively affected by the mining operations in their habitat. Not only has the cost of living increased, but it has also affected the ability of local residents to live well. They reported that ,Life feels hampered by dirty water, polluted air, displacement of communities, destruction of the ecosystems, degradation of fauna and flora, food insecurity, and other environmental negativities. These consequences are perceived as having an impairing effect on people's well-being. If mining has all these negative impacts on the environment and general well-being of its inhabitants, why don't people resist to it?

The impact of environmental degrading activities has been interpreted as a classic development theory, through the Environmental Kuznet curve (thereafter EKC), by proposing that "environmental quality first deteriorates with growth and then improves"(Grossman and Krueger1995 in Husnain,Haider Khan2021).The EKC therefore discounts environmental considerations, at least initially, for economic growth policies, which supposedly and eventually compensates for the negative environmental impact. The neoliberal economic literature seems to agree with the idea of economic growth first. Weber and Allen (2004), further agrees to the theory of Kuznets curve by suggesting that "developing countries should focus first on economic growth instead of pro-environmental policies, attaining economic growth eventually leads to attaining both environmental and economic goals, whereas, focusing on pro-environmental policies only slows down economic growth" (in Husnain, Haider and Khan 2021.p.1147).

The EKC, however, has been criticized as just a theory that rests on unreal implications, not factoring changes in time(Khan 2019 as cited in Husnain,Haider and Khan 2021.p.1147). Moreover, according to Leal and Marques(2022), the EKC "focuses on production and overlooks the impacts of consumption of imported goods on the environment"(p.4). Subsequently, the "environmental improvements achieved from technological progress will be offset, and economic growth will eventually lead to more environmental degradation"(Leal and Marques, 2022.p.45).

Per the EKC theory, it is expected that Ghana will shift to other sectors like services, or transition to sustainable ways of extraction while putting in measure to conserve and restore the environment(Adomako-kwabia,2021).Despite the criticism, the EKC has been used to explain the economic transformation of Africa (Husnain,Haider and Khan 2021), although it may not apply to Ghana, much less to mining communities like Asankragua. Given that, after several decades of mining extraction, Ghana has still not been able to shift from environmentally destructive practices like resource extraction as per the EKC would predict.(Ndembanteh,2020). Yet, the EKC having been criticized as just a theory, the idea of "growth first" seems to apply to Ghana.

The EKC seems to justify people living in an uncomfortable, unhealthy, environment that does not allow them to pursue a good quality of life. The concept of livability has been defined as the people's quality of life (McCann 2007, as cited in Zanella 2015), or as people's wellbeing (Newman 1999 as cited in Zanella 2015). Livability, as defined by Lennard and Lenard (1995) refers to the components of "environmental quality, community amenities and individual well-being" of people in a specific location. (in Saitluanga 2014.p.542). It includes factors ranging from environmental quality, social well-being, good health, harmony with others, fulfilled dreams to access to basic social amenities and many others(Liu et al., 2021). In this research, I use this term to refer to the general well-being of human inhabitants of a specific environment in terms of their self-perceived quality of life, health from environmental impact, and environmental quality.

The biggest mining company in Asankragua is the Asanko Goldmines which utilizes the open pit mining methods and supposedly abiding to "responsible mining regulations", such as reclamation and land rehabilitation. On the other side, miners around the enclave mostly engage in surface alluvial mining without adhering to a code of responsible practices. Adhering to responsible mining regulation does not preclude negative effects,for example excavation, blasting, drilling, and transportation of mined materials can generate dust and particulate matter, which,

when suspended in the air, can lead to respiratory problems for its habitats. However, there is the assumption , adhering to a code of responsible mining practices could mitigate the environmental and social risk associated with mining activities. For instance, according to research conducted by Bice, reclamation and rehabilitation of mined land before and after extraction could help restore the environment and other practices like finding ways to ensure safe storage and disposal of hazardous material and others are all ways to minimize the potential and future risk associated with mining activities (Bice, 2016).

I decided to focus more on small-scale artisanal mining in my research , due to the prevalent assumption that it has a more significant negative impact on the environment, although large scale mining activities equally cause detrimental negative effects to the environment and the community as a whole despite its legalities. Additionally, industrial mining has been discussed in several publications which recognizes its dangers.

1.2 Problem Statement

Mining activities as stated have lots of negative impacts like deforestation, soil erosion, loss of biodiversity, water pollution, air pollution and destruction of habitats (Kolawle & iyioa, 2023). The use of hazardous chemicals in the extraction of these minerals have raised concerns about environmental health, ecosystem damage and general well-being of people(Ros-Tonen et al., 2021). Social disruption is also another problem faced by habitats of Asankragua, fueled by the expansion of mining activities which has brought new dynamics to the community and increased general cost of living (Kumah,2022). Communities have been displaced to make way for mining activities,leading to loss of land including cocoa farms and cultural heritage which mostly generate social conflict(Okyere et al., 2022). Equally, residents of mining areas like Asankragua often are exposed to lots of health-related problems like Typhoid and other respiratory diseases due to their exposure to dust, chemicals, polluted water and many others (Ofosu-Mensah,2021). Given these diverse impacts, it is surprising that limited research has been done on the impact of mining activities on the livability of people in Asankragua. Most research focused on particular, isolated dimensions of community well-being, often focusing on the environmental or economic dimensions , with limited research addressing the intersection between them(Nkansah-Dwamena,2023).

This research seeks to assess the impact of mining activities on the livability of people in Asankragua. It will look into community perceptions of a good life, impact of illegal mining activities on the quality of life in Asankragua, social disruptions from mining activities and explore the potential conflict between artenal miners and cocoa producers in Asankragua. This research will hopefully bring to light a deeper understanding of how artisanal mining has impacted the livability of residents of Asankragua and their environment.

1.3 Purpose of the Study

This study seeks to analyze the impact of artisanal mining activities on the livability of people in Asankragua and its environs.

1.4 Research Objectives

This research will place more emphasis on their environment, health, social, and economic well being of community members in Asankragua and its surroundings, this research seeks to:

1. Assess the impact of mining activities on the quality of life and living conditions in Asankragua.
2. Explore Community perceptions and indicators of a good quality life in Asankragua.
3. Examine social disruptions caused by mining activities in Asankragua.
4. Analyze the influence and effectiveness of environmental justice movements in addressing mining related issues in Asankragua.
5. Explore the potential conflict between artisanal miners and cocoa producers in Asankragua.

1.5 Research Question

How does mining affect the living condition of people in Asankragua ?

1.6 Sub Questions

1. What is the impact of mining activities on the quality of life and living conditions in Asankragua ?
2. What are the community perceptions and indicators of a good quality life in Asankragua ?
3. What are the social disruptions caused by mining activities in Asankragua?
4. What are the influences and effectiveness of environmental justice movements in addressing mining related issues in Asankragua?
5. What is the possible friction between arsenal miners and cocoa producers in Asankragua.

1.7 Significance of the Study

With much emphasis on the Ghanaian context, this study may contribute to the existing understanding of the impact of small-scale artisanal mining activities on people's perceived quality of life. More importantly, this research may be a starting point for further research on the impact of mining activities and the quality of life of people in Ghana.

1.8 Organization of the Study

The research is organized into five chapters. The first chapter is about introduction to research, where background information, problem statement, significance and scope of the study and approach to organization are discussed. The second chapter entails a review of literature vis-à-vis theoretical, conceptual and empirical themes. The third chapter involves description of the methods that will be employed in undertaking the study while the fourth chapter contains a description and discussion of the study's findings vis-à-vis their managerial implications and their congruence with empirical evidence. The fifth chapter contains a summary of findings, conclusions drawn from the study, limitations of the research and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW AND THEORITICAL FRAMEWORK

2.0 Introduction

In recent years, an influx of mining activities has unimaginably taken over the entire Western Region of Ghana. Mining offers one of the prominent infrastructures in Ghana's economy with its unending contributions to the socioeconomic development and international trade as this bountiful nation is enriched with metallic and non-metallic mineral resources such as gold, bauxite, manganese and diamonds (Chuma et al., 2019). This has attracted both indigenous and foreign mining companies to contribute to the growth of the sector and the economy at large (Nyarkoh and Yeboah, 2022).

This review summarizes literature from other countries like Columbia and narrowed down to the Western Region of Ghana. In considering the situation on-the-ground, I tried to capture both the lived environment, environmental risks, health hazards and social spatiality for indigenous mining communities (Obodai, 2022). The reviewed literature sheds light on mined-out landscapes, resulting in groundwater contamination, catchment area degradation, and social disruption in terms of family dynamics and local livelihoods (Joann & Allan, 2021). It also sheds light on the cost of gold extraction on people's health, challenges with mining regulations, and demonstrates how social differences influences trust in, and perceptions of livability in urban or semi urban settings (Chigwenya,2019). The Literature further dive into the influence of the environmental justice movement on mining activities in the western region of Ghana, Conflict between stakeholders, comparative analysis of large scale and small-scale mining and finally the environmental degradation in political ecology.

The intent of the review is to recognize areas of knowledge missing from the literature , and learn from them. It contributes to a more nuanced understanding of the mining nexus and the pressures mining places on community wellbeing.

2.1 Theoretical Framework

Several conceptual frameworks can be drawn to make sense of the tension between mining as an economic activity and its relation to community livability. The theory EKC was coined in the early 1990's and criticized in the early 2000's. The authors Grossman and Krueger's (1995) theory of the Environmental Kuznets Curve (EKC) has dominated the debate on economic development and environmental degradation (Osuntuyi,& Lean, 2023). According to this view, environmental quality declines with economic growth as a predictable outcome of development but then it improves as societies grow richer while at the same time being better equipped and prepared to invest in 'greening' (Pegels & Altenburg, 2020).

Nevertheless, more recent authors have asked if EKC theory applies to the mining sector in Ghana. Mensah and colleagues (2021) found that, while the country was experiencing high rates of mineral extraction and economic growth after years of mineral development, it didn't seem to be moving along the development path that the EKC theory predicts: from resource use and processing to more sustainable activities or more service-oriented industries. This debunks the idea that environmental conditions are bound to improve on a linear trajectory when economic development occurs, countering neoliberal rhetoric that framed the country's environmental problems as just a passing stage on the path to development (Atapattu et al., 2021). It also shows why economic development alone is not a panacea – and why policy interventions need to come first.

Environmental justice is also a critical analytical framework to consider mining impacts, specifically the extent to which ownership over community livability is equitably shared and practiced (Velicu, 2019). According to environmental justice theory, policies and practices should promote equal distributions of environmental benefits and burdens across different socio-political categories and ensure that all people have meaningful participation in environmental decision-making processes (Egunjobi and Balogun,2016).

The sustainable livelihoods framework(SLF), created by Chambers and Conway (1992), is a holistic concept that can be used to illustrate the connections between economic activities and community wellbeing. It considers how and why poor people make a living and eat every day, considering the various assets (natural capital for example; or physical, financial, human or social capital) that households and communities are able to use to secure a livelihood. The framework

has been applied by Adjei (2007) to discuss the various livelihood strategies pursued by communities affected by mining in Ghana's Western Region to show how mining could enhance some communities while it also threatens others.

2.2 What Constitute of Good Life in A Specific Setting

Factors on what constitutes a good life in a particular setting is quite relative and depends on what the term good life means to the individual in question. Some researchers are of the view that good life constitutes quality education, good income, and strong bond/ connection to the place in which you find yourself(Berhe et al.,201:Haslauer et al., 2015 as cited in Nanor et al.,2018). However, Dolan et al.,(2006) measures the good life of a person on the basis of the individual's ability to afford basic needs, and insatiable wants, as well as being stable emotionally and mentally(in Nanor et al.,2018). A good life means " life quality, safety sense, service accessibility, comfortable living standard,health, quality water, quality air,transportation and social involvement"(Howley et al., 2009: Bishop and Syme 1995 as cited in Lukeman and Aderemi 2017.p.190).The meaning of good life for someone in the rural setting will differ for those in the urban setting likewise those in the developed countries will differ from the developing and under-developed, the bottom line will be for the individual to be able to live his or her life to their expectation without lack or wants.

Research by Wilson, Meiring and Wissing (2018) on the "understanding well-being in a Ghanaian context" discovered lots of fascinating results. Wilson, Meiring and Wissing (2018) explored the concepts of "Hedonic and Eudaimonic well-being". Hedonic well-being concepts are more focused on happiness, pleasure, enjoyment, devoid of pain or hardship, although it is mostly associated with subjective well-being, satisfaction in life and positive vibes. Eudaimonic well-being, on the other hand, associate's well-being to living in accordance with one's true self , and realizing your potential as an individual. It is mostly related to one's sense of purpose in life, personal goals and aspirations, personal growth and development and generally contributing to the greater good of others (Wilson, Meiring & Wissing, 2018.p.650). "Although theoretically, these two concepts hedonic and eudaimonic well-being are expected to correlate differently with other well-being constructs like curiosity, gratitude and other, there is no substantial evidence to support it" (Wilson, Meiring & Wissing, 2018. p.651).

Per research conducted by Wilson, Meiring and Wissing(2018) on ideas of well-being in a Ghanaian setting, the hedonic concept of well-being was predominant. From her findings, about 53% out of the total participates of 120, perceived well-being as happiness and fulfillment of material need, 26% of the precipitates perceived well-being as both the fulfillment of material needs and achievements of personal goals and growth and with least of the participants of 23% perceiving well-being as only eudaimonic (Wilson, Meiring and Wissing, 2018.p.661).

Equally, research by Addo et al., (2023), in a participatory study to establish community defined indicators of livability in mining towns of the Western Region, concluded that, access to clean drinking water, availability of quality health infrastructure, access to quality education, and environmental cleanliness are the most important determinants of quality of life from residents of mining areas perspectives.

A good life in a ghanaian setting is most associated with the word "Ahoto" in ghanaian language(Twi) , which literally translates as good living . Research by Delle Fave et al.,(2018), on well-being showed that there is need for clarity on what happiness means(as cited in Wilson, Meiring and Wissing,2018).To a young Ghanaian coming up, good living mostly means the ability to afford the basic needs, good job, family, a car and a nice house to live in. This is what the average Ghanaian perceive to be a good life or living well, however, this deal or perception mostly different depending on one's upbringing.That is to say that the idea of a good life to a rich kid born in a city will differ a bit from a kid born to poor parent in terms of their magnitude of success or exposure. According to the researcher, the greater percentage of her study population in Ghana perceived well-being as achieving material needs, good health, emotional and psychological needs devoid of stress or pain.

Based on the aforementioned researchers findings,the habitat of Asankragua is not living a good life, because their waters, and air are polluted, lands degraded, communities are displaced, source of livelihood is taken from them and are experiencing health related illnesses like cold, typhoid, due to the expansion of mining activities(Erdiaw-Kwasie, Dinye and Abunyewah, 2014).Per the aforementioned definitions, habitat of Asankragua community are affected by these mining activities which lower their standard of living and general wellbeing. Research has it that most habitats in mining areas are mostly stressed.

Community evaluations of corporate social responsibility (CSR) projects done by mining companies have also been conducted. In a study on community perceptions of CSR projects in the Western Region, Boateng et al., (2023), found that though they might appreciate mining companies' projects for the provision of infrastructural investments and social services for communities, there is often skepticism concerning their duration, willingness to maintain and continuously commit to community development.

In a nutshell, research highlights the significant role that the mining sector can play in community development, but there need to be effective and meaningful commitments to community engagement, as well as more participatory approaches to CSR planning and implementation (Mutale et al., 2019).There is the need to pay closer attention to community-based ideas about livability, how current definitions and indicators of livability might negate the varied and sometimes ambivalent ways of living conditions currently observed in mining-affected regions.

2.3 Environmental Justice Movements and Community Activism

In recent times, the Western Region of Ghana has witnessed the emergence of environmental justice movements and community activism over mining concerns, such movements target the disproportionate environmental impacts of mining on mining-affected communities, and argue for fairer, more sustainable forms of extraction. Amoah et al., (2020) also critically analyzed the emergence and evolution of environmental justice movements in mining communities in the Western Region and how these movements have inspired local activists to draw from local, national and international networks, in an effort to raise awareness about environmental degradation and the human rights violations associated with mining. These important factors are reflected in how environmental justice movement actors negotiate (or fail to) between multiple, often conflicted stakeholder groups (Méndez, 2020).

Research on environmental justice movements – the study of community responses and struggles over political and economic power, has recently begun to examine the extent to which movements affect and change mining policy and practices (Özkaynak, et al.,2021).For example, Tenkorang (2021), studied the role of nongovernmental organizations in shaping environmental governance in Ghana's extractive sector. Their study shows that community-based advocacy movements have found some success, especially in calling more attention to environmental

monitoring and paying more compensation to local people most affected by mining activities. On the other hand, community participation in decisions remains a challenge.

Research by Acheampong, (2021) on public interest litigation as a tool in redressing environmental injustices in some mining affected areas in the Western region of Ghana concluded that ,although legal strategies to promote environmental sustainability might prove effective and useful in some ways, the corporate structure of the mining sector and the political economy of the country put limits on the kinds of remedies that could realistically be achieved within the legal process. He therefore argues that legal action supposedly could be complemented by broader systemic changes to address structural causes of environmental and social inequalities in mining-affected areas.

Environmental justice issues in one way or the other connect to movements for women's equality and rights, as well as struggles against exclusion practiced by rural-based groups and chiefs against indigenous minorities. A researcher, MacGregor(2020)'s study shed light women's experience, and their distinct roles and challenges within environmental justice activism. It has increasingly informed community action and environmental organizing to embrace a more gender-sensitive approach.

Relatedly, a recent article provides insights into the role of social media and digital technologies in environmental justice movements in Ghana. Through an examination of how community activists in the Western Region of Ghana uses digital technologies to record environmental violations and mobilize spectators, Agyemang et al., (2023) demonstrate how digital technologies can facilitate the participation of community members in the advancement of environmental justice, intensifying scrutiny of environmental crimes, demanding greater accountability in the mining sector and mitigating grievances. However, they also raise concerns about the digital divide that may render some members of mining-affected regions unable to access certain digital technologies.

Ecological and public health concerns are a critical component of environmental justice movements in mining-affected areas of the Global South. However, recent literature has taken an incisive look at the obstacles faced by environmental justice movements. In Ghana's mining frontier, Hilson and Maconachie (2020) showed how state and market forces operated to co-opt or fracture community-based organizations, and identified path dependencies, spatial segregation,

urban growth and diaspora influences as the forces that empower self-interested local and trans-local power plays, and weaken local environmental justice movements. Their call for greater sustained investment in local environmental justice movements highlights the complexities of building and sustaining these movements.

It is not simple to argue that environmental justice movements have the power to exert pressure to solve mining-related environmental problems in Ghana's Western Region or that they are highly effective. On one end, environmental justice movements have served an important purpose in guaranteeing that mining companies and governmental agencies are reminded about their responsibility to local communities and that communities' rights need to be upheld (Jarratt-Snider, & Nielsen, (Eds.). 2020). On the other hand, there are real limits to the extent to which their activism can be translated into concrete reforms of environmental governance or improved well-being of communities

2.4 Conflicts Between Stakeholder Groups

Mining-affected areas in the Western Region of Ghana are subject to contestation over resources, land and livelihoods. In this context, how can we move beyond conflict and tension between stakeholder groups? Recent academic literature has begun to identify the principal conflicts and tensions, namely between artisanal miners, large-scale mining companies, and the traditional agricultural communities (Szoke-Burke & Werker, 2021). Researchers have recently turned their attention to intersections and conflicts between artisanal and small-scale mining (ASM) and large-scale mining. In a study on resource conflicts between ASM operators and multinational mining companies in the Western Region, Hilson et al.,(2021) ,point out that many people who were originally engaged in small-scale mining lost their livelihoods due to large-scale mining activities. These shifts have caused disputes over access to land, competition for minerals and a struggle for the inclusion of ASM in the regulatory scope, while large-scale operators contested legitimacy. The authors reiterate the need for more inclusive and collaborative models of mineral governance that respect the rights of ASM operators and citizens.

Studies looking at tensions between mining and a traditional agricultural livelihood such as cocoa farming are more recent. For instance, Boateng et al., (2023) ,found that the main sources of conflict between mining companies and cocoa farmers in the Western Region include competition for land and water resources, as well as worries about soil and water pollution. These

authors also explore possible pathways of resolving conflicts stemming from mining by implementing stricter land use planning and optimizing agronomic practices through a combination of traditional and scientific methods.

Traditional authorities' mediation of mining-induced conflict has also become an area of recent academic enquiry. In a study, Asamoah and Osei-Kojo (2016) explored the evolution of the role of chiefs and traditional leaders in resolving disputes between mining companies and their local communities, and the limits of their power to negotiate for community-first outcomes against mining interests(in Ayelazuni and Mawuko-Yevuga,2019). While presenting a myriad of competing objectives and conflicting interests, their analysis highlights the limitations of socio-political institutions in addressing the ongoing negative impacts of mining on communities in disenfranchised parts of Ghana.

The benefiting communities experience conflicts over the sharing of benefits arising from mining, which is documented in contemporary scholarship. Agyemang-Duah et al., (2020), for instance, investigated the intra-community tensions generated by uneven distribution of employment and compensation in mining communities. His study underscores the need for more transparent and equitable benefit-sharing for the wellbeing of mining-affected communities.

Some of the most recent research addresses the new security and environmental governance issues posed by galamsey (illegal small-scale mining) and its impact on community relations. Research by Kutsoati and Morck (2022) on the social and economic system of galamsey in the Western Region highlights the complexity of actors, the difficult nature of regulation and formalization, and the need for literature by studying, for example, love-scams as recent changes in the scamming economy.

Following similar lines of enquiry, recent academic literature has called attention to conflict resolution mechanisms and their contributions to conflict resolution in protracted mining-related conflict. In a paper evaluating mining-related conflict and associated conflict resolution mechanisms in mining communities in Ghana's Western Region, Osei-Kojo and Andrews (2021) identified a range of local and national conflict resolution mechanisms, including traditional mediation and alternative dispute resolution as well as formalized legal pathways. The study emphasizes the need for adequate conflict resolution mechanisms that are culturally appropriate

and context-specific to the nature of issues related to mining, especially the occurrence of conflicts clustered around complex, multi-dimensional and interconnected issues.

However, this potential for conflict between different stakeholder groups is a serious limitation to enhancing community livability in the mining-affected areas in Ghana's Western Region. In recent literature, there is a greater push for more inclusive and participatory, as well as more equitable and transparent mineral governance systems and practices to manage the extractive industries and enhance public-private and private-private partnerships for the better management of the mining sector with focus on the pre- and post-mining phase.

2.5 Comparative Analysis of Large-Scale mining and Small-Scale artisanal mining (Galamsey).

Mining activities are mostly grouped into two scales , thus small-scale arsenal and large scale. There has been some predominant perception which tends to favor large scale mining activities as being environmentally friendly while scale artisanal mining is mostly seen as environmental and socially disruptive. Research by Ayelazuni and Mawuko-Yevuga(2019) challenged the prevailing notion that large scale mining is less environmentally destructive than scale scale arsenal mining.

Scale scale mining is mostly labor intensive in nature, and it fosters local economics and serves as a source of livelihood to many local community members. Large scale mining on the other hand is capital intensive, mostly efficient, higher productivity and a significant contribution to the countries economies of scale of a country and infrastructure development and however,Large scale mining activities just like small scale artisanal mining activities mostly have damming effects of the environment ranging from community displacement and social related issues, deforestation, habitat destruction, it and water pollution.Figure 1 in page 35 below,shows a picture of a small scale mining site.

Andrew (2015) argues that "Ghana is criticized for its policy action, and inaction and have been in favor of large-scale mining and against small scale arsenal miners" who are mostly subsistence and lower and middle class who are basically in the industry to survive (as cited in Ayelazuni and Mawuko-Yevugah,2019.p.244).

According to Ayelazuni and Mawuko-Yevugah, Ghana treats foreign investors who mostly engage in large scale mining to amass wealth for themselves with soft hands compared to

the young Ghanaian(local community members) trying to end a living or survive by engaging in small scale artisanal mining although these policy makers are greatly aware of the negative impacts of these large scale mining activities especially since the greater percentage of miner employ the surface mining methods which is less costly, easier and profitable compared to the underground (Hilson, 2017; Daniel, 2018 as cited in as cited in Ayelazuni and Mawuko-Yevugah, 2019.p.244). Although "profitable surface mining ravages mining communities, socially, and environmentally"(Palmer et al., 2010 as cited in Ayelazuni and Mawuko-Yevugah, 2019. p.244).

Per the researcher's findings,this ecological bias is largely attributed to the presence of power dynamics. Where the powerful class (foreign investors in large scale miners) against the marginalized and powerless population (small scale artisanal miners), who are mostly farmers, less educated, and unemployed trying to make a living either as their main source of income or as part of their means of survival (Ayelazuni and Mawuko-Yevugah,2019. p.251).

According these researchers, large scale mining activities in a broader sense does more harm than good in a sense that, in the western region of Ghana alone, the total number of lands leased for the purpose of large-scale mining was about 10 primary communities with about 208,00 habitat most of whom depend on subsistence farming(Ayelazuni and Mawuko-Yevugah,2019. p.252). Additionally, the level of injustice to these community members bores down to the fact that, while their source of livelihood as subsistence farmers has been affected by these mining activities, their remaining farmlands are also used as dumping sites, leaving all their mine waste in their farms which blocks access to these farmlands (FGD in Teberebi,2018 as cited in Ayelazuno and Yevugah p.253).

There are about 168 small scale miners in the Western region of Ghana(Erdiaw-Kwasie, Dinye and Abunyewah, 2014) and most of the mining techniques employed by these miners include surface mining techniques and underground. The extent of the damage of these mining activities depends largely on the type of mining technique employed.

Field work 2024:Figure 1: picture of a galamsey site(small scale artisanal mining) in Asankragua

Figure 1.1:picture of open pit that has been reclaimed and filled with ground water

Source: Field data (2024)

2.6 Environmental degradation in Political ecology

The concepts of political ecology have been defined by different researchers from diverse points of view, some definitions stress the political economy, some on more formal institutions, and others on environmental change. Watt (2000),explained the concepts of "political ecology in the light of complex relations between nature and society through a careful analysis of what one might call the forms of access and control over resources and their implications for environmental health and sustainable livelihoods" (p.257 as cited in Robbins 2012.p.16).Equally, Political ecologists: "accept the idea that costs and benefits associated with environmental change are for the most part distributed among actors unequally ... [which inevitably] reinforces or reduces existing social and

economic inequalities ... [which holds] political implications in terms of the altered power of actors about other actors" (Bryant and Bailey 1997, pp. 28-29 as cited in Robbins 2012. p.20). As a result, research of such nature tends to reveal "winners and losers, hidden costs, and the differential power that produces social and environmental outcomes" (Robbins 2012 p.11).

The concepts of Political ecology, moreover, explore "these social and environmental changes with an understanding that there are better, less coercive, less exploitative, and more sustainable ways of doing things" (Robbins 2012, p.11). Political ecology theory emphasizes the notion that growth can compensate for any socio-ecological cost. Summer (1991, cited in Gerber,2023). Thus, sociological costs like social displacement, land degradation, health hazards, human rights of residents, pollution, and economic growth can make up for any environmental damage (land degradation, health hazards, pollution, social displacement) that occurs in the pursuit of growth. This notion has equally been pointed out by other researchers using the Environmental Kuznet curve.

Furthermore, political ecology theory undermines the complex power dynamics involved in mining activities between the various actors or stakeholders like governments, local communities, foreign investors, and the indigenous people. Summer(1991, cited in Gerber,2023). Power dynamics influence both economic and social agendas in decision-making in connection to mining and environmental hazards. The ability of people to prioritize economic benefits over the cost impact of the environment often leads to conflict over land use, environmental degradation, and social injustice. Equally, the indigenous people (Asankragua) often feel overpowered and tend to accept and engage in mining activities when there is no alternative for their source of livelihood.

2.7 Impact **of Mining Activities**

The emergent literature on the subject matter now provides substantial evidence of the grave environmental repercussions of mining activities in mining affected areas in countries like Colombia, Ghana and some other parts of the world. In Colombia, Choco, research was done by Tubb in 2019. According to his research, gold mining in Colombia has supposedly replaced traditional subsistence activities like farming, fishing and created great economic opportunities for local resident although this economic benefits comes at a price thus degradation of the environment, pollution of water bodies with harmful chemicals like mercury and other accompanied health related risk(Tubb,2019).Per Tubb's research mining activities supposedly

provides short term income for local residents which goes a long way to increase their dependence level and contribute to the cycle of poverty(Tubb,2019). The situation in Choco, Columbia is similar to the mining areas in Ghana particularly in the Western Region. Most mining affected areas experience the problem of air pollution, community displacement, deforestation, soil erosion, water-body pollution, destruction of aquatic and terrestrial habitats, and the detrimental effects on the health of living beings and the environment (Karikari et al., 2020).

Water pollution is a major concern in mining-impacted areas of the Western Region: significantly, Kusi-Ampofo and Boachie-Yiadom reported in 2020 that they conducted campaigns to sample water quality in surface, groundwater streams and rivers in and around areas affected by mining activities in the region. They noted that the water samples showed an elevation in the levels of heavy metals such as mercury, lead and arsenic. The pollution of water resources, apart from its health implications, affects biodiversity in water bodies and compromises agricultural productivity (Datta, et al., 2022). Pollution from the use of mercury in artisanal small-scale gold mining (ASGM) operations is a major source of environmental contamination in the Western Region. Studies by the social scientists Basu et al., (2021) into mercury pollution in ASGM communities also showed extremely high levels of contamination in soil, water and air, calling for urgent intervention to reduce mercury use and ensure that small-scale mining is undertaken with environmental health and protection in mind.

Figure 2: Polluted water in Asankragua. Source: Field data, 2024.

Another major environmental impact of mining in the Western Region are the losses in forest cover and land degradation. Boadi et al., (2019) captured changes in forest cover across decades

using satellite remote-sensing techniques in select mining areas. They showed that there was a significant loss in forest cover from 1999-2006, and related loss of biodiversity and ecosystem services (Kyere-Boateng & Marek, 2021). In addition, soil erosion from cleared areas drastically increases sedimentation in water bodies and consequently impacts water quality (Kasuki, 2023).

Additionally, air pollution is also another environmental concern commonly associated with mining. Dust generated by open-pit mining and ore processing in the region have been shown to affect air quality and human health. The study conducted by Mensah et al., (2023) revealed that the concentrations of PM2.5 (extremely fine particles) and PM10 (fine particles) in some neighborhoods exceeded guidelines set by the World Health Organization. For example, they sampled inside a boy's room, where their measurement ranged from an average of 93.87 μg/m3 at night to 186.72 μg/m3 during the day. An outdoor sampling station yielded a mean concentration of 125 μg/m32. While these dust levels might not directly impact immediate human health over short periods, they could potentially increase the risk of various respiratory illnesses for anyone regularly exposed to these dusty environments (Amoabeng et al., 2020)

Furthermore, the social impacts of mining activities are also another concern. Research literature on the social changes that result from mining has grown rapidly in recent years and shows that these processes are often contradictory and uneven (Frederiksen,2019). Mining introduces profound and unpredictable social changes, including demographic shifts, inverted or gender-reversed traditional processes, social inversions, and transformations of social relations and institutions (Hudson, 2020). The most conspicuously visible social effect is the pace of population growth and urbanization of mining towns. Research by Amoateng et al., (2020) describe demographic dynamics of mining communities as characterized by strong in-migration of workers from other parts of Ghana and from neighboring countries (in Cobbinah et al., 2021).

High levels of population in-migration exert pressure on local infrastructure and services, alongside ruptures in the social fabric and norms. Additionally, this influx in mining activities has been linked with heightened social conflicts and conflict in some communities. Examining the mining belt in the western region of Ghana, Osei-Kojo and Andrews (2020) found that: 'The most important sources of conflict included disputes over the use of land and the environment, as well as disagreements over the distribution of benefits from mining.' Osei-Kojo and Andrews (2020) go on to say that the implications for community relations 'cannot be overstated'. Unresolved

conflict, or even contests over forms of engagement, have significant consequences that are worth taking seriously. Public engagement and consultation, and access to relevant conflict-resolution mechanisms, should be an inherent part of good mining governance.

Most recently, the effects of education and human-capital development in mining-affected communities have been explored. In researching the structural legacies of the mining sector in the Western Region, Adu-Baffour et al., (2023) noted mixed evidence on the effects of mining activities on educational outcomes. The improved educational infrastructure has been facilitated by mining activities in some communities, while there has also been a higher incidence of mining-related economic opportunities that have pulled youth out of school (Dughan, 2019). According to Antabe et al., (2020), both the positive and negative impacts of mining activities help policy makers and stakeholders to develop possible interventions to reduce the negative impacts and harness the positives.

CHAPTER THREE

RESEARCH METHODS

3.0 Introduction

This chapter briefly explains the research approach, which is the methodological framework and turns the research focus into researchable materials by including the study population, research setting, undertaking research design of the study, delimitation and finally the limitations of the study. The methodology of the study is thoroughly detailed to help ensure credibility of the research understudied. According to Creswell and Poth, it is also very important to seize the opportunity to allow students' cognition to be inculcated with firsthand knowledge of the process, making the journey an informed pleasure (Creswell and Poth,2016).

3.1 Research Paradigm

The study employed interpretivist philosophy, which helps to understand the contemporary social world by calculating different views and opinions of people (Chowdhury,2014). This paradigm was chosen for this research because, the research aimed to understand the quality of life and the subjective perceptions of the community members amidst the effects of mining activities in Asankragua community and its environs. This philosophy helped to better understand and appreciate diverse views and opinions of participants, their reactions to certain events or past circumstances and how it has impacted or affected them. The interpretive approach is advantageous as it permits different meanings ascribed to mining activities by people in Asankragua. This paradigm helps to understand that mining is socially, environmentally, culturally and politically created, it is therefore understood differently by different stakeholders and community members. Mining therefore, does not have an absolute objective with the overall quality of life of community members in Asankragua. The interpretivist paradigm is very important to this study because it enables the experience of multiple realities and perspectives (Lincoln,2013).

3.2 Research Approach

The study employed qualitative research methods. The qualitative method was deployed because this technique allows for an in-depth and contextualized understanding of the quality of life of community members and how the emergence of mining activities has impacted or affected their day-to-day activities and general well-being. Qualitative research enables researchers to explore the

complexities of how mining affects various aspects of community life, which includes their social relations, livelihood, environmental quality and cultural practices (Yin, 2016). The fluidity and flexibility of these approaches allows researchers to explore and makes changes to adapt new or unexpected themes that may arise during the research process.

This approach will equally enable a deeper understanding of the research topic by accommodating individual's distinct views on quality of life in mining growing areas like Asankragua, unlike the quantitative approach which may not fully take into account the lived experiences of community members in Asankragua and their subjective social realities. According to Patton (2014), qualitative approaches also allow participants to express their experiences in their words and understanding.

3.3 Research Design

I selected an inductive qualitative survey design to help elicit grounded data from participants' perceptions and lived experiences in mining growing areas like Asankragua. This design was chosen for the interviews because of its potential to uncover social realities and identify patterns of experiences within a community when close-ended questions and answers are not appropriate (Jansen,2010). The design chosen helped to explore the complex, contextual impact of mining activities on the quality of life of people in Asankragua and its environs.

A semi-structured open-ended interview guide was developed based on the objectives of the research to ascertain participants' views on the impact of mining on their quality of life in Asankragua.

Furthermore, the semi-structured interviews gave room for findings to cover a wide breadth of the research topic understudied without predetermining the details, thereby giving voices to habitats of Asankragua to share their views and opinions in a more natural way. To help obtain a broad understanding of how all stakeholders perceived the impact of mining activities, individuals from a diverse range of occupations who were knowledgeable about the subject matter were interviewed.

The research incorporated expressions which gave the opportunity to participants to describe their lived experiences and opinions within the mining prone areas (Van Menen,2016).

Equally, contextual sensitivity regarding the interview background and situation was maintained (Holloway and Galvin,2016). Thus, the chosen design helped describe the lived experiences of loss, sought 'human understanding', regarded the situation from the community's understanding, and pursued a deep qualitative description that could inform future policies and practices.

3.4 Profile of Study Area

Asankragua is one of the mining communities located in the Western region of Ghana, which has witnessed a significant influx of mining operations in recent years. Asankragua is the capital town of the Wassa Amenfi East District, with about 162 villages. The district's population is about "179,699" and about "80%" of the population are into agriculture (Ghana statistical service, 2014). Wassa Amenfi is "culturally homogenous, and 765 dominated by ethnic groups like Ashanti's, Nzema's and Akyem's" (Ghana statistical service, 2014.p.2) About 70% of its natives are christians and the remaining being muslims and traditionalists. Most of the roads in Asankragua are untarred with poor internet access, pesticides and inserts which are harmful to the human body.

The area is full of dust and due to the nature of bad roads, taxis drivers and transportation unions are forced to increase prices of transportation fares unreasonably to help make amends for damage repairs of their cars. Historically, the inhabitants of Asankragua relied on agriculture, especially cocoa production, however, the discovery of gold deposits and most miners' inability to adhere to responsible mining regulations has reduced the soil's quality to fully support agricultural activities (Mohammed and Abubakar, 2019).

I chose this study area because it is one of the mining communities in Ghana where mining activities have impacted the living conditions of residents through the destruction of arable lands including cocoa lands which the inhabitants depend on for survival.

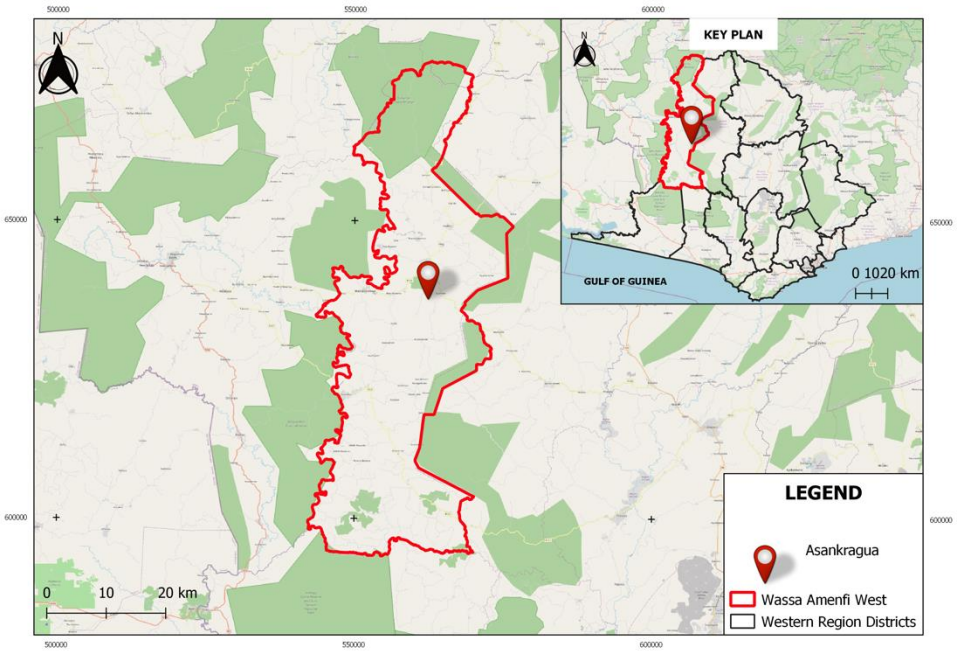

Figure 3: Map of Asankragua

3.5 Population

The study aimed to result from natives and residents of Asankragua who have lived in the community for a while and seen the transition of the community due to the presence of mining activities. Participants of the research include farmers, miners, community leaders, environmental activists, religious leaders, community members and participants who were knowledgeable on the research topic understudied. Likewise, focusing on participants with long-term residents, all of whom would have had enough time and experience in observing community changes and the influence of mining activities over time (Marshall and Rossman,2014).

3.6 Sampling Procedure

I employed a purposive sampling technique in selecting participants because it helps in selecting participants who can provide in-depth information about the research topic understudied. The semi-structured interview guide consisted of three main sections: (i)demographics of participants (ii) community perceptions and quality of life indicators, and (iii) potential conflicts between artisanal miners and cocoa producers. The semi-structured interview design facilitated emergent questioning, meaning that examiners focused on predefined themes, as they emerge, while

maintaining consistency across interviews. This approach is important in studies where there is the need to capture the diversity of people's experiences and also allow for the exploration of primarily unforeseen topics that may arise during the interview process.

3.7. Bio Of My Research Assistant

In the course of my research preparation, I initially reached an agreement with a research team based on the University of Cape Coast, Ghana campus called the evergreen researchers to collect data on my behalf. They requested an initial payment before undertaking the fieldwork, of which I did pay them. However, things couldn't go as planned as the team were reluctant to travel to the field to collect the needed data for my research, and despite my effort to help resolve the situation, they were neither willing to refund the money nor go to the field. This setback created a great delay in the research process.

It was amidst this challenge that my brother, who happens to be a fourth-year student at the university of Cape Coast, Ghana agreed to visit the location and assist me with the interviews. I then went ahead to book a hotel for Mr. Dennis Dankwah Twumasi, and trained him for some days on how to go about things. With my brother at the research location, I was able to conduct the research online. I interviewed all the 30 participants together with him, he ensured that all relevant information was recorded and took some pictures and videos to add to the research. We ensured that no participant was forced to take part in the research and offered. Informed consent was equally asked from each and every participant before recording their response. After completing the interviews, he sent all the recordings, pictures and videos to me for transcription and analysis.Thanks to him, I was able to move forward with my research despites the initial challenge faced with the original research team.

3.8 Data Collection Procedure

The qualitative data was collected within the month of July and August, 2024 through interviews. The interview was conducted face-to-face by a research assistant through my assistance and directions to help maintain consistency. We ensured that participants were comfortable and

willing to share their views on the research topic. The interviews took place at participants' chosen location. The interviews took about 40-60 minutes and each interview was recorded with participants consent. This form of data collection allows for sensitivity to the historical, situational contexts in which participants live out their experiences. The face-to -face interview setting allowed us (researcher and assistant) to form a relationship with participants which helps to build credibility and trust, and also gives the opportunity to observe the body language and emotions participants attach to the research questions being asked (Brinkmann &kyale,2015). The audio recording of the interviews created a more exact record than relying on notes, and by contrast, provide a contextual backdrop to events as they unfold and can yield data that the note taking might not (Brinkmann & kvale,2015).

3.9 Data Processing and Analysis

The audio recordings of all the interviews from respondents were transcribed word for word. The transcripts were analyzed using thematic analysis following the six-steps process mentioned by Braun and Clarke (2006), which includes "familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the reports"(p.80).

Nvivo was used to methodologically create code themes and identify significant subjects. After importing the data into the Nvivo library, a comprehensive review was then carried out (Bandara et al.,2015). The research utilized an inductive research approach with thematic analysis to attain its objectives. Key themes within the data were identified using the thematic analysis which included all interviews carried on field from various stakeholder like farmers, traders, cocoa extension officers and opinion leaders. The research's factual foundation was maintained by employing an inductive technique, which ensured that these topics were taken directly from the data and free of preconceived notions. (Terry et al., 2017). The method involved several steps, that is familiarizing yourself with the data, developing preliminary codes, identifying and concentrating on particular themes, and finally integrating these themes into a logical narrative. This approach was particularly helpful in pinpointing instances of community perception of quality of life, conflicts among cocoa farmers and miners, and on how cocoa production has reduced as a result of Environmental degradation

3.1.0. Positionality

As a researcher, some of the notions that I had to address before starting my interviews were some perceptions of some rural residents in Ghana, that researchers are connected to the government of Ghana and other dignitaries and as such feel they can channel their grievances through them. Additionally, the notion that researchers with foreign backgrounds could help their communities with infrastructure development , this could shift the focus of some respondents to their personal needs instead of speaking of the impact of mining activities to the environment and general well-being. I had to take about 5 minutes each to explain to all respondents that I was not affiliated to any political party or government and as such cannot channel their grievances for any policy influence or change. Secondly, I am only a student researcher at Erasmus University and cannot offer any form of help or external aid. This data is solely for research purposes. I believe these explanations helped clarify the objectives of the research and managed participants expectations about my role as a researcher

3.1.1 Ethical Consideration

All participants were given equal rights and respect to participate irrespective of their class, gender, race or ethnicity. Research participants were equally given the right to be forgotten. Additionally, all supplied personal data were stored in a secure password protected environment and all primary and secondary data pseudonymized. Both my research assistant and I made sure to get the consent-verbally, in writing or through recording before collecting any information from the participants.

3.1.2. Limitations

Because the research was conducted only in Asankragua, it is unclear as to whether or not the findings can be generalized to other areas affected by mining. Moreover, given the qualitative nature of the study, the findings reveal the individual perceptions of researchers, as their own subjective experience, not necessarily shared or similar to those of the entire

community. Additionally, this research covers the environmental, social, economic, and the overall quality of life of community members and how mining has impacted them, however, it does not investigate the political or legal aspects of mining governance. Data-collection mainly consisted of previous literature and interviews with willing participants in Asankragua. Equally, I think the chosen research design did not give participants enough space to reflect on the deep interview guide questionnaires and provide in-depth responses. I think if I could have gotten some time to get to know my participants and conducted a face-face interview probably it could have yielded a more detailed response than I received. Potentially, further research could also be conducted to take a comparative approach to bring out common features and contrasts (think back to Boone and House's West Rockhill and Greendale), but it could also adopt more mixed-methods approaches that would combine the insights of a situated approach (qualitative) with the power of surveying larger populations to collect more quantitative data. As Creswell and Plano Clark (2017) supposedly insist in their writings on research design that, it is a mistake for qualitative researchers to disregard quantitative methods, and it is a mistake for quantitative researchers to dismiss qualitative approaches.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This paper analyzes the impact of mining activities on the living conditions in Asankragua in the Western Region of Ghana. It utilized qualitative data collected from 30 community members in a semi structured interview at Asankragua. The research explored how mining activities have altered various aspects of community life. The analysis is presented within the context of environmental justice, sustainable livelihood, environmental Kuznets curve and contributes towards a nuanced understanding of mining and the community.

Demographic Characteristic	Category	Number of Respondents	Percentage
Gender	Male	17	56.7%
	Female	13	43.3%
Age Range	18-30	8	26.7%
	31-45	12	40%
	46-60	7	23.3%
	61+	3	10%
Occupation	Farmer	9	30%
	Miner	6	20%
	Trader	6	20%
	Public Servant	5	16.6%
	Religious leaders	3	3.3%
	Environmental Activists	1	10%
Length of Residence	<5 years	3	10%
	5-10 years	9	30%
	11-20 years	12	40%
	>20 years	6	20%
Total Respondents		30	100%

Tble 1: Demographic information of the respondents in Asankragua

Source: Field data (2024)

Please note that, due to the sensitive nature of my research topic, my supervisor recommended that we do not share much information on the demographics of the respondents .

The 30 respondents were selected as a cross-section of the community of Asankragua ; it included men, women, youth and elders known to be affected by the mining occurring within living memory. Forty-three per cent (43.3%) of the respondents were women and (56.7) per cent were men. The mix in genders ensured that a gendered analysis of perceptions of mined areas was possible.

Participant age ranged from young adults to oldmen , with 40% between the ages of 31 and 45. I expected both younger residents and those who have lived in the area for many years to have a deep sense of what makes their community livable, including those most directly affected or impacted by mining and those who have witnessed how livability has diversified or changed over time. From an occupational perspective, the sample represented the economic heterogeneity of the community with farmers being the largest group (30%), followed by miners (20%) , public servants(10%),traders(10%),community leaders(10%),religious leaders(10%) and 10% being environmental activist.

The common environmental justice movement in the Western Region is the Wassa Amenfi Association of communities affected by mining (WACAM).This independent group helps give voices to the voiceless community members affected by mining activities in Asankragua and its environments. They educate, create awareness of the dangers and negative impacts associated with illegal mining or galamsey operations , offer some level of support to affected people and to a larger extent promote environmental protection strategies in Asankragua and its environments (Seini, 2022. p.45). There are equally other major environmental justice movements in Ghana who daily advocate for a change and an end to the destruction of natural resources and the environment as a whole. For the past few months there has been lots of protest and awareness creation on the negative impacts' mining activities. The operation "stop galamsey" demonstration was held recently by concerned citizens of Ghana together with other anti-galamsey groups like 53 Democrat hub members. These two groups were led by national coalition against galamsey to peaceful protest illegal mining activities in Ghana

Additionally, most of the farmers we interviewed were cocoa farmers who had first hand information on how mining activities have impacted their farm lands. I also got the privilege to interview five small scale artisanal miners(galamseyer) and one large scale miner from the Asanko Gold mines in Asankragua.

Furthermore, five public servants were interviewed, 3 of them were Agric cocoa extension officers from Ghana Cocoa Board, and two teachers from the Asankragua senior high school. The Agric extension officers are mostly in charge of all the cocoa farms in their assigned cocoa regions and serve as a link between cocoa farmers and Ghana Cocoa Board. These officers have in-depth knowledge of how mining activities have impacted cocoa farms and the environments as a whole. They are equally the first points of contact for most cocoa farmers when faced with challenges relating to their cocoa farms before it extended to community leaders. Additionally, one environmental activist from WACAM was interviewed to know his take on the impact of illegal mining activities on the quality of life of community members in Asankragua .This occupational diversity of the respondents is important for the study since everyday life in Asankragua represents the differing perspectives of those directly involved in mining, those on traditional livelihoods are displaced due to mining (eg, farmers), and those involved in extra economic activities. Indeed, the vast majority of respondents (90 percent) had resided in Asankragua for more than five years, with 40 per cent of them having lived there for about 11 to 20 years. This significant length of time in one place meant that most participants possessed significant experience with mining-related transformations taking place in their community, making their insights richer and more meaningful.

Educational background varies from no formal education (60%) to tertiary education (40%). This diversified pattern of representation helps to mature the structural perspective, gathering views from people with varying experiences of mining, including those who are unaware of mining impacts and those who have in-depth knowledge which may encourage critical reflection on the subject. This demographic showed a degree of diversity of the Asankragua community, encompassing multiple stakeholder perspectives vital to reaching a holistic understanding of how extractive operations have affected quality of life across different social and economic groups.

Objective 1: To evaluate the effect of mining operations on the quality of life and living conditions of the Asankragua community and its environs

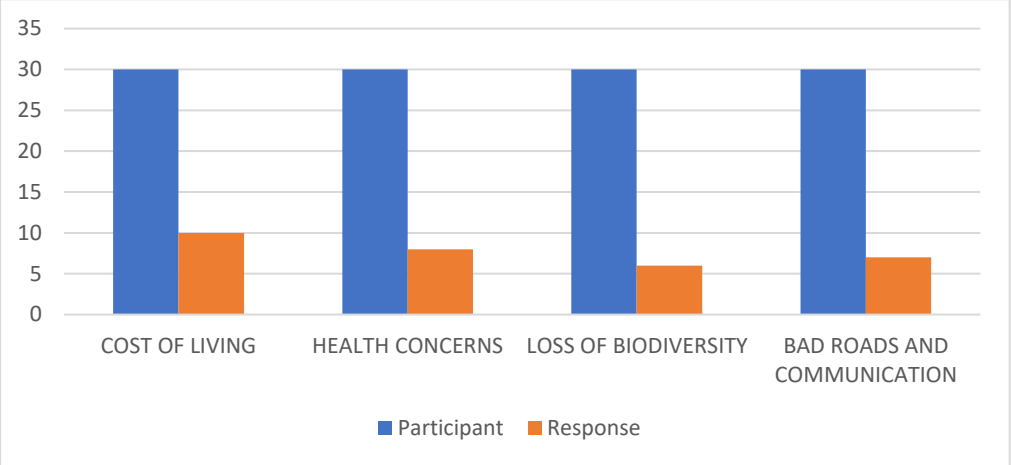

Figure 4: Current Living Condition .**Source: Field data (2024)**

From the Figure 4 above, Cost of living emerged as the major concern for most of the participants. Out of 30 participants, 10 raised the concern of high cost of living. According to these respondents, the presence of mining activities has increased their standard of living.

A cocoa extension officer said*:*

> *Yes, due to mining activities, standard of living is high and there are hardships in the community due to this "galamsey" (31-45 years, male, Cocoa extension officer, August 2024. Asankragua).*

This issue raised by most of the correspondents correlates with the research by Erdiaw-Kwasie et al., (2014), "on the impact of mining environment and well-being", these researchers pointed out that, high cost of living was one of the major concerns and worries of most community members in Prestea in Ghana. Per my interview, this high cost of living is as a result of high level of income inequality, loss of jobs and farm land for agricultural purposes. This research resonates with a response a trader gave during the interview:

> *Life is hard here now, we can't grow anything, even if we try it doesn't yield. We must import everything from Accra and other regions before we can eat, including pepper, okra and others. These galamsey people are only making money for themselves and building huge houses here* (*18-30 years, Female, Trader, August 2024. Asankragua*)

A farmer also seconded:

> *Due to high cost of living and food scarcity because of the mining activities it is difficult to grow agricultural produce. (40-60 years, Male, Cocoa farmer, August 2024.Asankragua)*

Secondly, the impact of mining on people's health became the second major concern for the local community. Out of 30 participants, 8 of them raised the issue of health implications. The participants reported a rise in respiratory illness in the community since mining took place, which they attributed to the dust generated by the mines.

A community member said:

> *People in the community are suffering with more respiratory attacks here – asthma – especially children and older people. It's from the mining pollution in the air.' (31- 45 years, female, trader, August 2024.Asankragua)*

Farmer also added

> *Health issues are really serious here too. One of the common health problems is typhoid. Recently, I heard a child was deformed from birth and I think this was a result of the chemicals in the water. (46-60 years, male, cocoa farmer, August,2024. Asankragua)*

This is consistent with reports by Afrifa et al., (2018) of increased incidences of respiratory symptoms among residents in mining-affected communities. Mine-induced air pollution has had an impact not only on physical health but also on the stress and discomfort associated with constant exposure. Water pollution was also linked to various health concerns.

A community elder shared:

> *Our people are becoming ill because of the water. We get more rashes of the skin, stomach illness, and other illnesses since the mining began. (60+ years, Male, religious leader, August 2024. Asankragua)*

This is consistent with findings of other work, for instance by Hadzi, Essumang and Ayoko (2018) who documented high levels of contamination with mercury and other chemicals in water sources near the mines, raising concerns about the safety of drinking water.

Furthermore, Loss of biodiversity came as the third concern of most of the respondents interviewed. Out of 30 respondents, 7 of them talked about loss of biodiversity. Most of the participants were worried about how mining activities have brought about deforestation,

degradation of the environment, pollution of water bodies, air pollution, soil fertility loss and many others which has reduced their quality of life. Another concern raised by participants was the issue of deplorable roads and telecommunication with 30 out of 6 participants worried about the bad roads and telecommunications.

Goal 2: Examine community perception and indicators of a good quality of life in Asankragua and its surroundings.

This objective was intended to explore how individuals perceive good life to be and what factors are needed for one to live a good life. Following the comprehensive data analysis, a number of codes and themes were derived. Five themes (basic social amenities, eduction, financial stability, good health and job satisfaction) were derived from the interview as represented on the graph in Figure 5 below:

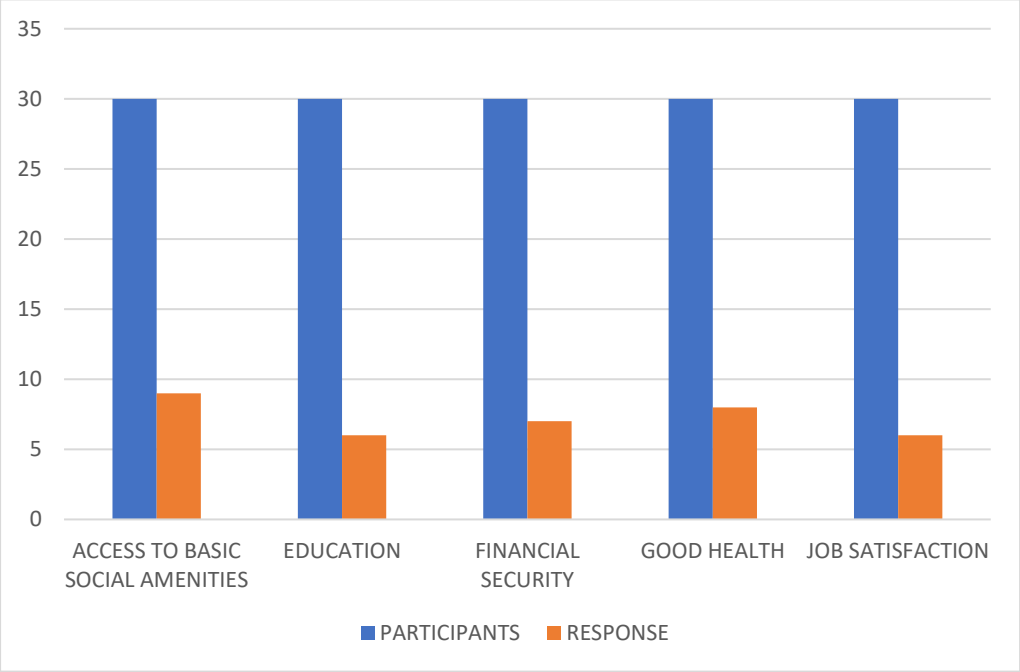

Figure 5: Community Perception of Quality of life .

Source: Field data (2024)

From the figure 5 above, 15 out of 30 respondents perceived good quality life as having access to the basic social amenities in life, such as healthcare, accommodation, clean water and others. Additionally, good health was the second, financial stability came third, as 8 and 7 out of 30 participants saw the need to be in good health and financial stability to be able to live a quality life.

A Community member shared her view:

> *Access to the basic social amenities and be able to afford anything and feed your family without any stress (18-30 years, Female, Trader, August 2024. Asankragua)*

A farmer seconded:

> *We want our children to have opportunities for a better future, to receive an education in decent schools, and good health in government hospitals. But if our land and drinking water are polluted with environmental problems from mining and dumping of tailings, then we are concerned about the health of our children (46-60years, Male, Cocoa Farmer, August 2024. Asankragua)*

From my research findings, it is quite clear that living a good life in a Ghanaian setting to skewed towards the hedonic well-being concepts. That is having access to social amenities, financial stability, good health and many others to help make life more accessible and less stressful (happiness devoid of hardship). Good living(Ahoto) in Ghana from my own understanding is mostly associated with one's ability to afford almost all the basic needs in life and even beyond as and when needed. Thus, one's ability to be financially stable, good source of income, quality education, clean water, good healthcare, shelter, means of transportation, have good relationship and be at peace with oneself and nature is an average Ghanaian sees good living to be. This view agrees with the views of Dolan et al., (2006), according to them, good life of a person is measured based on the individual's ability to afford basic needs, and insatiable wants, as well as being stable emotionally and mentally (in Nanor et al.,2018).

Secondly, other factors that the respondents mentioned about was good health. out of 30 participants, 8 of them said for one to be living a good life, there is the need to have a good life. Good health of community members is directly connected to environmental cleanliness devoid of polluted air polluted water, and as well as a harmonious environment to help one live well.

A community member pointed out:

> *The galamsey activities are making the community worse off. But environmental health is very important for survival here and well-being in general. I can say that there is nobody in here who is perfectly healthy because of what is going on. Recently, there was a formless child born here because of the chemicals released into the water bodies. It is very serious here (31-45years, Male, Farmer, August, 2024. Asankragua).*

This confirms the research by Addo et al., (2023), in a participatory study to establish community defined indicators of livability in mining towns of the Western Region, concluded that, access to clean drinking water, availability of quality health infrastructure, access to quality education, and environmental cleanliness are the most important determinants of quality of life from residents of mining areas perspectives. Based on the reasons in Figure 4 and 5, community members in Asankragua rated their current quality of life to be poor as shown in the diagram below.

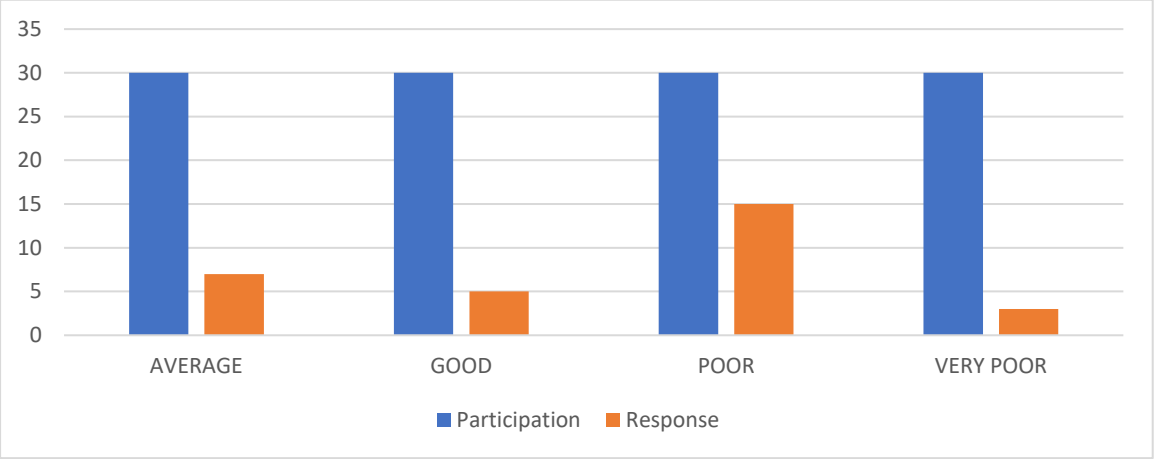

Figure 6.: Ratings to Quality of Life .

Source: Field data (2024)

As seen from Figure 6 above, half of the participants (15 out of 30) based on the factors mentioned above in Figure 4 respondents rate their quality of life to be poor. These conditions are mostly as a result of the presence of mining activities in Asankragua. This perception was largely influenced by inadequate access to basic needs like clean and drinkable water, healthy and serene environment, quality health care systems, and many others. Similarly, good roads and reliable telecommunication network was also factors in boosting the quality of life for community members in Asankragua.

According to an agric extension officer said:

> *Bad roads, high standard of living, polluted water and above all the presence of galamsey has made matters worse (18-30years, Male, Agric extension officer, August 2024. Asankragua).*

Objective 3: Mining in Asankragua. What are the local environmental degradation and social disruptions?

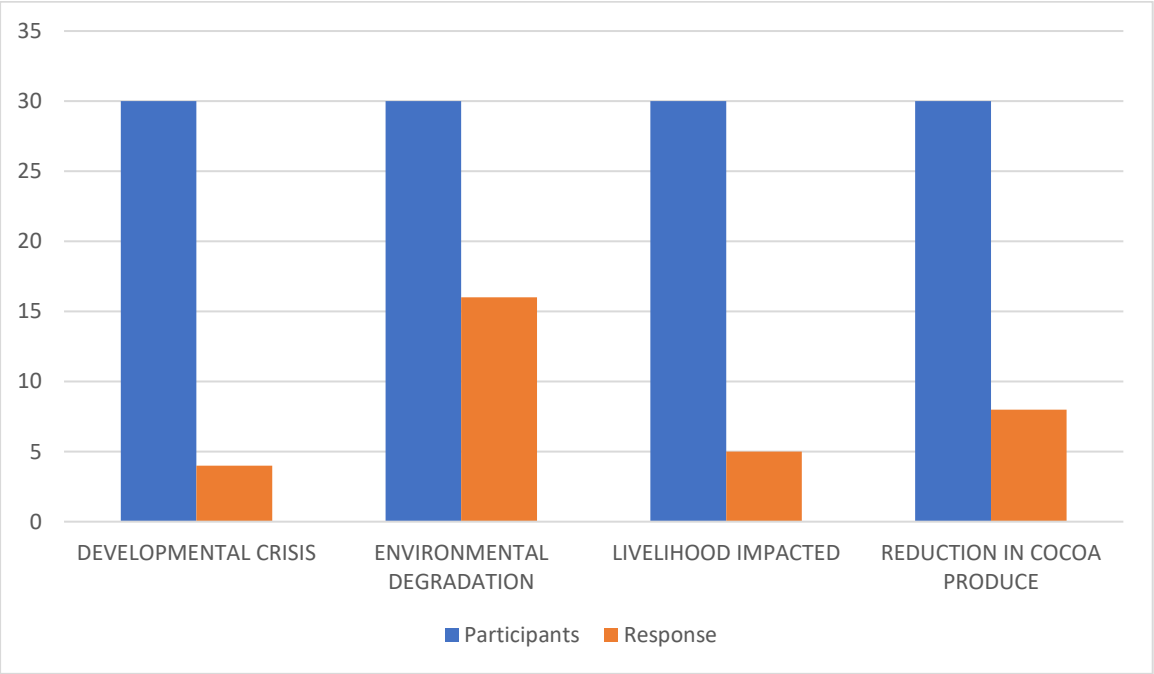

Figure 7: Social Disruption

Source: Field data (2024)

From the Figure 7 above, environmental degradation emerged as the greatest concern of respondents of the Asankragua community. 16 out of 30 participants interviewed raised the concern of how these mining activities have degraded the environment, polluted the air and water bodies and other. This demonstrates how mining operations have caused environmental degradation, which has greatly exacerbated social unrest in the impacted communities. Additionally, 8 of the respondents raised the concern of how mining activities have reduced cocoa produce and all agricultural produce in general.

One community member noted:

> *Our rivers are dying. Our fish are gone, and the water is so toxic that there is not even a drop to take. It is about destroying an entire ecosystem, right beneath our eyes (31-45 years, Male, trader, August. 2024. Asankragua).*

This finding is supported by the study led by Kusi-Ampofo and Boachie-Yiadom (2020), which recorded very high levels of heavy metals in sources of water in the vicinity of mining sites. Water bodies are the most influenced by these heavy metals, which have detrimental effects on aquatic life and on the people who are dependent on these water sources.

Deforestation was another significant issue raised by many respondents. A community elder explained:

> *We are cutting the forests that we've lived off for hundreds of years. The medicines are disappearing, the animals are disappearing. As a whole, the environment is changing. (60+ years, male, farmer,August,2024.Asankragua).*

This confirms densely populated mining areas as a hotspot of forest loss that Boadi et al., (2019) found through field mapping using satellite images. With the loss of forest cover, the community has access to fewer forest resources such as organisms and products that have different cultural and economic values.

Air pollution was also a common theme in their writings on environmental problems:

A local educator remarked that:

> *The wind blows dust around. You can see brown clouds hover over the town, especially when it is dry outside,' she said. 'The children are upset because of it. They are constantly coughing. I am worried about their health. (18-30years, female, teacher, August 2024. Asankragua)*

This is consonant with the brother-wide study of Mensah et al., (2023) who have discovered increased particulate matter pollution where mining activities exist. The wider impact and the devastation to air quality will have immediate and long-term consequences for the well-being of the community.

Moreover, many interviewees, especially farmers, described the loss of farmland and reduction in cocoa produce due to mining activities.

A cocoa farmer lamented:

The mines have taken over large parts of our farmland. The land around us is now also polluted and less fertile. It's not only the land, but our very essence of living that is disappearing. (31-45years, Male, Cocoa Farmer, August. 2024.Asankragua)

A trader also added:

Yes, this mining has made life really difficult and made the lands infertile for production of agricultural produce (31-45years, Male, Trader, August,2024. Asankragua)

Such observations echo the research of Boadi et al., (2020) on the effects of mining on cocoa agriculture: the loss of agrarian livelihood arenas not only undermines food sovereignty but empties farming practices of their social value.

Objective 4: To assess the influence and effectiveness of environmental justice movements in addressing mining issues in Asankragua.

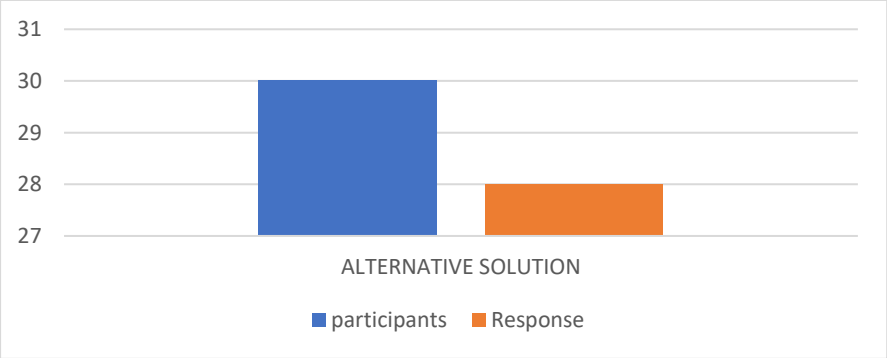

Figure 8: Environmental Justice

Source: Field data (2024)

This objective was represented by interviews that exposed the intricate reality of environmental justice movements and their organizing to redress issues related to mining in Asankragua. A code that supported the environmental justice concept was found through the analysis. The need for an alternative solution became prominent, signifying possible remedies meant to lessen the effects of mining operations by means of improved regulations. From the figure 7 above, 28 out of 30 respondents confirms the community's desire for sustainable practices and emphasizes the need to look into alternate approaches to strike a balance between environmental preservation and

economic development. From the interviews the participants mentioned the efforts of environmental justice movements and local community leaders involvement to help reduce the negative impacts of mining activities and help create a good environment .Community members reported that WACAM and local leaders involvement in advocating for the need restore the environment by amplifying the voices of directly affected community members from mining activities, mobilizing grassroot members to create awareness of already known harm caused by mining activities and the need to cause an immediate change , put an end to illicit mining activities and focus on environmental management initiatives to help restore the environment for a healthy living . However, there is still the need to look for a more refined way to help tackle the issue of mining in the Asankragua community.

A cocoa extension officer said:

> *Ghana Cocobod has created a desk at the cocoa house(office) to help check cocoa farms and educate them on the need to protect their cocoa farms for generations. They sometimes also help farmers to claim their compensations from these galamseyers when the need arises (31-45years, Male, Cocoa Extensions Officer, August,2024. Asankragua)*

A farmer also said:

> *Yes, the paramount chief is very key here and is doing his best to help improve the quality of life here* (60+years, *Male, Farmer, August 2024.Asankragua)*

This is in line with what Amoah and Asiama (2020) observed in their study of the rise and development of environmental justice movements in Ghanaian mining communities in the Western Region. Although some respondents acknowledge the efforts of the government and environmental activists in helping to restore the environment and reduce the impact of mining activities on the environment, however, other respondents believed otherwise.

A community member said:

> *The government is not putting any match effort, same as these traditional rulers. They have very good relationships with these miners and try to alert these miners when the government sends officials to stop them while in operation. You understand me right! You know, recently the government sent people here, the military men. They came here to stop and arrest the galamseyers still in operation but they local leaders tip the miners off and bribed these officials to leave. These leaders mostly have their shares in this galamsey activities. It is very sad, you know. (18-30years, Male, Civil servant, August 2024, Asankragua*).

Furthermore, although there are ongoing efforts to help protect the environment, local leaders and community members pointed to the issue of power dynamics which has become a hindrance.

A farmer responded

> *Most of the farmers are not willing to give their farms to these galamseyers but we(farmers) need money and besides, these galamseyer are very powerful, have political connections and the financial muscles and as such they do things according to their will (60+years, Male, Farmer, August 2024. Asankragua)*

A Community member also added

> *With galamsey issues, it is from the top to down, so it's very difficult to control them (60+years, Male, Religious leader, August.2024, Asankragua)*

This echoes the experience of the power dynamics between mining companies and communities in Ghana described by Hilson et al., (2019). The disparity of resources and influence often limits the power of environmental justice movements to effect change.

Some respondents also identified other divisions within the community as further challenges, as noted by one teacher:

> *Not everyone in the community supports the fight against galamsey. Some people benefit from the mining, and they see our protests as a threat to their livelihoods. It divides us and makes it harder to present a united front. (18-30years, Female, Teacher, August.2024. Asankragua)*

This conflict also reflects the diverse socio-economic consequences of mining, as detailed by Agyei et al., (2019), which can splinter the solidarity and effectiveness of environmental justice movements.

Despite these challenges, the majority of respondents reported some success in influencing local and national policies. One environmental activity from WACAM said:

> *But all I can say is that because of our continued advocacy, there have been some changes in the municipality's mining ordinance. There's more regular monitoring of water quality and more vigorous enforcement of environmental standards* (31-45years, Male, WACAM, August 2024. Asankragua)

This is in line with research undertaken by Asamoah et al., (2021) on the role of civil society in mining governance in Ghana, which shows how even small policy shifts reflect the growing influence of local movements on environmental governance. But some saw policy influence as

limited: 'Politicians, they usually end up being caretakers of the very interests that got them elected' This local government official.

> *Some of the things that we have recommended have been good, but many of the recommendations have been ignored at the national level. The distance between local concerns and national policy is still great (31-45 years, Male, WACAM, August 2024.Asankragua).*

This view is in line with the findings by Osei-Kojo and Andrews (2021) on the inadequacies of multi-level governance in Ghana's mining sector, which underscores how the disconnect between bottom-up advocacy and top-down policymaking remains a major hindrance to achieving environmental justice. Several respondents also suggested possible solutions to help address the issue of mining in general.

An Agric extension officer said:

> *It is possible to end all these negative environmental impacts, but unless the government, traditional and local leaders come to an agreement to stop galamsey, other than that, no one can. They all have to be on the same page and enact laws to help stop this act (31-45years, Male, Agric cocoa extension Officer, August 2024. Asankragua)*

Objective 5: Investigate possible tensions between the artisanal miners and the cocoa farmers in Asankragua.

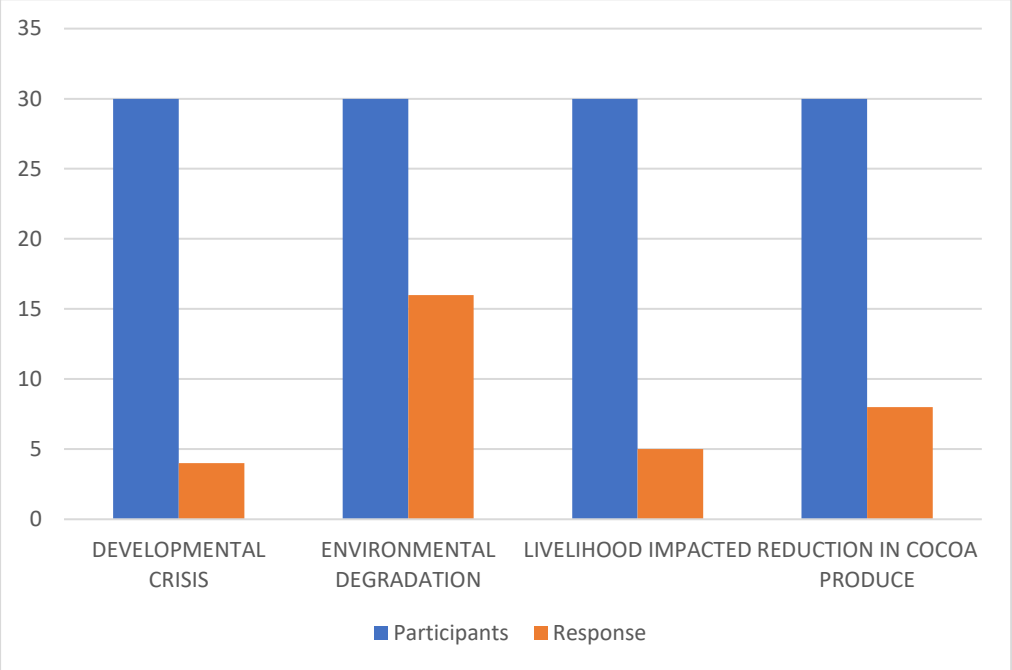

Figure 9: possible conflict

Source: Field data (2024)

From the Figure 8 above, the greater percentage of respondents disputed any possible tension between farmers and galamseyers. 12 out of 30 respondents said there is mostly a mutual understanding between the miners and farmers. According to them 9 out of 30 respondents said dispute situations are mostly not related to the lease of the farm lands to the miners but it is mostly on the compensation packages associated with the terms of lease. Equally, there is also a bit of tension between farmers who are unwilling to give out their lands for mining. Tension over the use of land and broken promises on the agreed compensation packages could lead to social unrest and strains on the harmony and relationships among community members. According to the farmers, the compensation packages promised to them are not enough and sometimes not honored.

A farmer revealed:

> *We mostly give out our lands because we need money. The amount of money I can get from selling my cocoa farm can never be compared to my 20 years of hard labor as a cocoa farmer, so it is like that. The problem is that sometimes these miners*

do not honor their promises and that is where the struggle and fight come in (31-45 years, Male, Farmer, August 2024. Asankragua).

This finding supports the research done by Adonteng-kusi et al., (2016), which confirms that many farmers in Prestea in the Western Region of Ghana perceived the community compensation package for the sale of their farmlands as a mere publicity stunt and does not support their well-being.

Additionally, about 5 of out the 30 respondents acknowledged that the possible dispute could be between farmers themselves, especially farmers who share borders. Most often than not, when a farmer gives out their farm lands to galamseyers, their activities affect all the neighboring farms and as such the other farmers are therefore compelled to give out their farms as well. Furthermore,8 out of 30 respondents talked about the possible attempt to help resolve any possible conflict either between the farmers and galamseyer or among the farmers themselves.

Notwithstanding, several respondents reported attempts at constructively mediating the conflict: A leader shared:

We are working towards bringing the two sides together to talk,' he continued, both the miner and the cocoa farmer It is not easy, but we are working at it (60+years, Male, Religious Leader, August 2024. Asankragua)

This conforms with research on community-based solutions to resource conflicts by Osei-Kojo et al., (2021) in Ghana where local solutions and compromises are seen as central to resolving the conflict.

But many interviewees also chafed at their powerlessness before governmental indifference. One cocoa farmer told us:

We need stronger enforcement of the mining laws and support for cocoa farmers. They keep talking about how important cocoa is, but we don't see them doing anything to protect us from miners (60+years, male, Cocoa farmer, August 2024. Asankragua)

This view is supported by Hilson et al., (2019) who have explored the struggles of regulating artisanal mining in Ghana and how its perceived inefficacy is fueling increased friction between miners and farmers.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

5.0 Introduction

The study sought to examine the impact of mining activities on the livability of community members in Asankragua in the Western Region of Ghana.Data from 30 semi-structured interviews were administered and explored through the theories of environmental kuznet curve and political ecology to explore how mining activities have impacted or changed quality of life. Themes were generated, all of which were related to the study objectives, providing a complicated understanding of the way mining has changed or is changing the livability of communities, specifically Asankragua.

Objective 1: Assess the impact of mining operations on the quality of life and living conditions.

From the response received from the interviews, I deduced that quality of life and

living conditions in Asankragua have changed significantly as a result of mining activities. A major issue that was expressed by respondents was about the high cost of living in mining areas. This was attributed to the high level of income disparities, reduction in agricultural produce due to the release of harmful chemicals into the soil which reduces its fertility, residents are therefore forced to rely on imports of local goods from other regions.High cost of living therefore reduces the quality of life of community members. Additionally, mining activities were most often cited as a factor which supposedly impacts locals' health. Most respondents reported an increase in respiratory illness which is supposedly associated with the increased dust from mining operations. Water pollution was also linked to a number of health issues.

Objective 2: Explore community perceptions and indicators of a good quality life in Asankragua and environs.

The analysis of the interviews revealed a spectrum of views about what constitutes a good quality of life in Asankragua, and how they have changed as a result of mining activities. The greater percentage of respondents stressed on access to basic social amenities as the greatest determinant of a good quality of life. Access to clean and safe water, good health care systems, quality education, access to food, a healthy and clean environment were some of the concerns raised. Respondents stressed on the need for these basic social amenities for one to live a good quality life. Mining activities have significantly altered what many people regard to be the fundamental factors in their quality of life. Economic factors also figured heavily in narratives of quality of life. Many contributors emphasized the value of stable, sustainable livelihoods. Along with providing adequate income, such livelihoods were consistently identified as a central touchstone of good quality of life. But perceptions of economic stability varied, reflecting the multifaceted economic costs and benefits mining brought to the community. A livable community I strongly believe is a community where these social amenities are easily accessible by all and well maintained.

Comparing the ideas of community members on the quality of life to that of well-known researchers and philosophers like Ubuntu and Buen Vivir. The ideas of Ubuntu stress on "life as a mutual aid"(Jatoi,2022.p.15).He equally stresses on "intrinsic value for human life instead of human capital implying the sovereignty of people over capital and extends this same respect to nature"(Jatoi,2022.p.15). I believe the ideas of these community members in Asankragua falls within the philosophy of Ubuntu in a sense that access to these social amenities creates a common space and contributes to a collective good of these community members and prioritizes community development over individuals. Equally, these members rated their quality of life as poor due the negative environmental impact caused by mining activities. This does not align with the livable environment Ubuntu advocates for, which is placing an intrinsic value on nature. Similarly, his ideas of emphasis on good life as in "harmony between human beings and also between humans and nature" (Balch,2013 as cited in Jatoi, 2022. p.20). The ideas of Buen Vivir affirm the community members responses to rating their quality of life in Asankragua as poor due to how the emergence of mining activities has distracted the harmony that existed among themselves (for example the tension between community members, miners and farmers) and has also gone a long way to destroy the harmony and peace that existed between them.

Furthermore, the ideas of Buen Vivir stresses on the need for a balance of both social and ecological aspects of life . The need for a balance between economic growth and ecological destructions. This idea of these great philosophers goes contrary to the theory of EKC which stresses on discounting environmental management for economic growth initially. While the ideas of EKC focus on economic growth which later leads to environmental restoration or management, the ideas of Buen Vivir and Ubuntu advocate for equity and sustainable development practices from the initial state while stressing on the need for a balance between economic growth and environmental well-being. They also advocate for harmony among with nature which is contrary to the what the impact of mining activities shows.

Equally, financial stability, good health, and job satisfaction also emerged as indicators of factors to living a quality life and was cited as an element of life that was challenging to maintain, given the population growth and economic activities that came with mining. It was based on these factors raised in objective 1 and 2 that respondents had to rate their current quality of life as poor. For example, most of the respondents reported difficulties in having access to clean drinking water, good sanitation and a healthy environment.

Objective 3: Examine environmental degradation and social disruptions caused by mining

These interviews revealed that generations of mining activity in Asankragua had caused widespread environmental degradation and social disruption. All of the interviewees described major ecological destruction from mining. Almost all were concerned with the pollution of water bodies: the dead wildlife and fish washing ashore; pollution of water bodies; health related problems in nearby communities and biodiversity loss. Others felt the loss of forests changed their ability to use the forest resources they depended on for sustenance and their cultural heritage. Pollution of water sources and degradation of soil quality were often reported to impact the health of cocoa trees and reduce their yield. The addition of mercury and other chemicals in the processing of gold opens up the possibility of both long-term environmental damage and health problems. The issue of the degraded environment and social disruption I strongly believe is a common or known repercussions from these mining activities especially galamsey or small-mining in particular. These destructions align with the theory of EKC which is to discount environmental management for economic growth , my concern is that, the predicted shift by the EKC after a level of economic

growth to environmental restoration practices has certainly not been the case for the Asankragua community and Ghana as a whole.

Objective 4: Assess the influence and impact of environmental justice movements

The greater percentage of respondents proposed an alternative solution to the environmental challenges posed by these mining activities although the influence of environmental justice movements and local leaders was greatly acknowleged.Respondents recommended the need to enforce existing rules and regulations to help promote a more sustainable mining practice. A significant portion of respondents also proposed a complete ban on small-scale mining activities and also the need for reforestation and land rehabilitation methods to help restore the fertility of the soil and the environment as a whole. The fact that the majority of the percentage are recommending a possible solution shows that they are aware of the influence of the environmental activist movement and are aware of the need to move towards more sustainable practices and look beyond the benefits derived from mining. Additionally, presents a growing consensus on the need for a sustainable development as a healthy environment in Asankragua and its environs.

Objective 5: Investigate possible tensions between artisanal miners and cocoa farmers

The interviews highlighted a mutual agreement between miners and cocoa farmers with respect to the lease of lands in Asankragua, however, a significant tension still remains mostly around the promised compensation packages. The majority of farmers express their dissatisfaction when the promised compensation for the release of their farm lands is delayed, not enough or not paid at all. This more often than not breeds conflict and mistrust as these farmers feel cheated and mostly deprived of their primary source of income.

Also, some compensations promised fail to capture the long-term effects of these mining activities to the environment, health implications and reduced productivity and fertility of land after mining, which mostly increases farmers' grievances.

Furthermore, there is also the tension between farmers who are unwilling to give out their farm lands for mining as these farmers see the need for preserving their ancestral farm lands for future generations regardless of the amount offered as compensation. This creates a sort of conflict between these miners and farmers, as miners seek to expand their activities, while these farmers

also prioritize their long-term agricultural productivity and the need to conserve the environment.Regardless, some respondents reported reconciliation activities. Community leaders mostly push to bring both sides to the table, for dialogue and to find a way to control small-scale mining while also protecting the cocoa farms. Many also expressed exasperation with the perceived lack of effective government intervention, and called for stronger enforcement of mining ordinances and assistance to cocoa farmers.

5.1 Conclusions

This research explored the impact of mining activities on the living conditions in Asankragua and its environments. It focused on key objectives such as current living conditions, access to social amenities, the role of environmental activist conflicts between artisanal miners and cocoa producers and community perceptions about quality of life. The findings highlighted interplay between economic activities, environmental health ,social infrastructure, and community members quality of life in Asankragua and its environs.

Firstly, the high cost of living was driven by high levels of income disparities, food shortage due to mining activities thereby raising prices of basic goods and services and limiting economic opportunities. This has a significant implication for household income and the overall economic stability of community members in Asankragua and its environs. There is therefore the need to address these issues to help improve the quality of life of community members in Asankragua and its environs.

Secondly from the research, it was evident that access to basic social amenities is a major determinant for quality life in Asankragua by community members. The inadequate access to these social amenities led community members to perceive their quality of life as poor. Improvement in these amenities is therefore very important in enhancing or improving the quality of life and fostering sustainable developments in people in Asankragua and its environs.

Additionally, there is the need to address the issue of environmental destruction caused by mining activities to help improve upon the health of the environment and general well-being of community members.

Moreover, the analysis of environmental activism in Asankragua also revealed the key role they play in helping to create awareness of the negative impacts of these mining activities and ways to help reduce these impacts. However, the support of these activists is mostly limited due to the influence of power dynamics, weak law enforcement and resistance from vested interests. The majority of participants,therefore proposed an alternative solution to help combat the negative impacts of mining activities and shift towards a more sustainable approach. There is therefore the need to strengthen the capacity of environmental activists.

The potential tension between miners and farmers points out the need for sustainable land use planning initiatives in Asankragua. Although there is a level of agreement between these two groups, conflict over compensation packages and land use remain paramount. These conflicts threaten peace and harmony and equally undermines development efforts if not properly managed. Efforts are therefore needed to help ensure fair compensation packages, tighten environmental standards and ensure an alternative source of livelihood that could help reduce the tension.

Lastly, it is interesting how the EKC is an instrument which seems to suggest that environmental consideration shouldn't be at the forefront during the decision process and time and that environmental consideration should be postponed until growth. The EKC theory suggests that environmental considerations are often deprioritized during early stages of economic development, with the assumption that once a certain level of growth is achieved, societies will have the resources and motivation to address environmental concerns. However, in the case of Ghana's mining sector, this theory does not appear to hold. The expected shift towards environmental restoration activities, as predicted by the EKC theory, has not yet occurred. This suggests either that the Kuznets Curve framework is flawed or overly optimistic in assuming that economic growth naturally leads to environmental improvement, Consequently, relying on the EKC as a model for environmental policy in Ghana's mining sector may be misguided or delusional.

5.2 Suggestions for Further Studies

Further research could be conducted on how to design and evaluate mining practices with lower environmental footprints but maximal economic benefits to the local population, including studies on novel mining technologies tailings disposal, and mine-site reclamation strategies.

Again, given the social complexity revealed in this study, the role of further research is to explore the social and cultural consequences of mining on the solidarity of communities, the flexibility of traditional practices, and the patterns of local political organization – in some instances involving ethnographic research to record diverse experiences of the community.

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APPENDIX A: Questionnaires

INTERNATIONAL INSTITUTE OF SOCIAL STUDIES (ISS) OF ERASMUS UNIVERSITY ROTTERDAM

INTERVIEW GUIDE

TOPIC: Impact of Mining Activities on the Livability of People in Asankragua Community, Western Region of Ghana.

Dear respondent,

We are conducting research on the impact of mining activities in Asankragua and how it affects the community's quality of life. Your insights are valuable to us. This interview will take approximately 45-60 minutes. Your responses will be kept confidential and used for academic purposes only. Thank you for your participation.

Section 1: Demographic Information

1. Gender:

   [ ] Male [ ] Female fmalee

2. Age range:

   [ ] 18-30 [ ] 31-45 [ ] 46-60 [ ] 61 and above

3. Occupation:

   [ ] Farmer [ ] Miner [ ] Trader [ ] Civil Servant [ ] Other (please specify): _____

4. Length of residence in Asankragua:

   [ ] Less than 5 years [ ] 5-10 years [ ] 11-20 years [ ] More than 20 years

5. Marital Status:

   [ ] Single [ ] Married [ ] Divorced [ ] Widowed

6. Number of dependents:

   [ ] None [ ] 1-3 [ ] 4-6 [ ] 7 or more

7. Primary source of income:

   [ ] Agriculture [ ] Mining [ ] Trading [ ] Salary [ ] Other (please specify): _____

8. Housing type:

   [ ] Own house [ ] Rented house [ ] Family house [ ] Other (please specify): _____

9. Access to basic amenities:

   [ ] Electricity [ ] Running water [ ] Sanitation facilities [ ] All of the above [ ] None of the above

10. Participation in community activities:

[ ] Very active [ ] Somewhat active [ ] Not active

Section 2: Community Perceptions and Indicators of Good Quality of Life

11. What does quality of life mean to you?

    Someone who can affo

12. What are the most important factors that contribute to a good quality of life in your community?

13. What are some things that make one well-off, and how important are they for a good life?

    (Choose all that apply and rate importance on a scale of 1-5, where 1 is not important and 5 is very important)

i. Financial security [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
ii. Good health [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
iii. Education [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
iv. Strong social connections [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
v. Comfortable housing [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
vi. Access to basic amenities [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
vii. Job satisfaction [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
viii. Leisure time [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
ix. Other (please specify): ___ [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

14. How important is environmental health to the community's quality of life?

    What social and cultural factors do you believe are essential for a good life in Asankragua?

15. On a scale of 1-5, how would you rate the current quality of life in Asankragua?

[ ] 1 (Very poor) [ ] 2 (Poor) [ ] 3 (Average) [ ] 4 (Good) [ ] 5 (Excellent)

Follow-up: Why did you give that rating?

16. How has the presence of mining activities affected what you consider to be a good quality of life?

17. Are there any traditional or local indicators of well-being that are particularly important in Asankragua?

18. What improvements would you like to see that could enhance the quality of life in your community?

Section 3: Potential Conflict between Artisanal Miners and Cocoa Producers

Do you think there is any conflict between illegal miners or artisanal/galamsey miners and cocoa farmers in Asankragua?

19. Are there conflicts between small scale miners and cocoa farmers in Asankragua?

20. If yes, what do you think are some common factors leading to this conflict?

21. How has the growth of galamsey mining affected cocoa production in the area?

22. What are the primary concerns of cocoa producers regarding small – scale arsenal mining (galamsey) mining activities?

23. How have small scale miners responded to concerns raised by cocoa producers?

24. Are there any ongoing efforts to mediate or resolve conflicts between these two groups? If yes, please describe them.

25. How has the local government or traditional leadership addressed this potential conflict?

26. Are there instances where individuals or families engage in both mining and cocoa farming? How does this work?

27. In your opinion, is it possible for galamsey mining and cocoa production to coexist sustainably in Asankragua? Why or why not?
28. What solutions would you propose to minimize conflict and promote cooperation between galamsey miners and cocoa producers?

Closing: Thank you for your time and valuable insights. Is there anything else you would like to add about the quality of life in Asankragua or the relationship between artisanal miners and cocoa producers that we haven't covered?

APPENDIX B : Pictures From Field

Figure: Field officer discussing with opinion leaders and some community members.

Source: Field data,2024. Picture of some community members we uncounted during the research

Figure:10: A cocoa farm that has been pulled down.

Source: Field data, 2024

Figure 11: A polluted water body in Asankragua.

Source: Field data,2024

Figure12: Mining pits left uncovered in Asankragua

Source: Field data,2024

Figure 13: Some degraded communities in Asankragua. Field data,2024

APPENDIX C : Codes

Name	Description
COMMUNITY PERCEPTION OF QUALITY OF LIFE	How Individuals Within A Community View Their Overall Well-Being And Living Conditions.
ACCESS TO BASIC SOCIAL AMENITIES	
EDUCATION	
FINANCIAL SECURITY	
GOOD HEALTH	
JOB SATISFACTION	
CONFLICTS	Disagreements Between Individuals Or Groups Arising From Differing Interests, Goals, Or Values.
DISPUTE BETWEEN FARMERS AND GALAMSEYERS	
FARMERS DISPUTE	
MUTUAL UNDERSTANDING	

Name	Description
SOLUTION FOR CONFLICT RESOLUTION	
CURRENT LIVING CONDITION	Present State Of A Person Or Community's Daily Life, Including Aspects Such As Housing Quality, Access To Essential Services
COST OF LIVING	
HEALTH CONCERNS	
LOSS OF BIODIVERSITY	
BAD ROADS AND COMMUNICATION	
ENVIRONMENTAL JUSTICE	Distribution Of Environmental Benefits And Burdens Across All Communities.
ALTERNATIVE SOLUTION	
QUALITY OF LIFE	
AVERAGE	
GOOD	
POOR	
VERY POOR	

Name	Description
SOCIAL DISRUPTION	Disruptions To a Community's or Society's Regular Operations
AIR QUALITY	
DEVELOPMENTAL CRISIS	
ENVIRONMENTAL DEGRADATION	
LIVELIHOOD IMPACTED	
REDUCTION IN COCOA PRODUCE	
WATER POLLUTION	

APPENDIX D: Word cloud of interviews conducted

APPENDIX E: Word Map of Parent and child codes extracted the interviews .