Evaluating Stakeholder Participation and Company Responsiveness in Addressing Community Concerns Over the Sustainability of Mining Operations in Ghana: The Case of Ashanti Region

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ABSTRACT

The mining sector remains central to Ghana's economy, yet large-scale operations in the Ashanti Region have generated persistent tensions between mining firms and host communities. Using a mixed-methods design, this study combines structured surveys (n=74) across four mining communities, namely, Obuasi, Manso Nkwanta, Konongo, and Mpasatia, with semi-structured key informant interviews with seven regulatory bodies. Quantitative data were analysed through frequency distribution and descriptive statistics, qualitative transcripts underwent thematic analysis using NVivo 14 software.

Findings reveal a fundamental disconnect between firms' stated commitments and community realities. Some 61% of respondents disputed that firms conduct Environmental Impact Assessments (EIAs), while 82% disputed the implementation of Environmental, Social, and Governance (ESG) policies. A core finding is that firms systematically substitute enforceable ESG frameworks, independently audited, legally structured, and tied to long-term accountability, with discretionary Corporate Social Responsibility (CSR) programmes that are voluntary, carry no legal enforcement mechanism, and fail to address structured community accountability. This substitution constitutes a governance failure with direct consequences for host communities. Stakeholder engagement is equally deficient, 63% of respondents disagree that structured engagement processes exist, and 71% rate firms as unresponsive to community concerns.

The study concludes that sustainable mining governance in the Ashanti Region requires a decisive and policy-backed shift from voluntary CSR to enforceable ESG commitments, strengthened cross-institutional regulatory oversight, and inclusive stakeholder engagement processes that meaningfully incorporate marginalised groups, particularly women and youth.

Keywords: Stakeholder engagement, ESG, CSR, Sustainability, EIA, Corporate responsiveness, Mining governance, Ghana, Mixed methods, Ashanti Region

INTRODUCTION

Background to the Study

In the mining industry, usual CSR efforts, like giving to charity, undertaking community projects, and getting social license to operate, have become more structured. Now, they follow standardized ESG and sustainability guidelines, such as the ICMM principles, reporting that matches GRI standards, and more comprehensive disclosures on sustainability and ESG (Jenkins & Yakovleva, 2006; Jenkins, 2004; Verrier, et al., 2022; Singal, 2021; Pouresmaieli, 2024; Amos, 2024; Isacowitz, 2022). However, this shift is not visible in Ghana's mining sector, specifically in the Ashanti Region, where the interplay between economic extraction and community welfare demands a governance architecture that moves beyond voluntary philanthropy to enforceable accountability.

The mining industry is a pivotal driver of economic growth globally. The World Economic Forum estimates

that natural resources contribute approximately US$44 trillion, roughly half of global GDP, with emerging economies accounting for 70% of world copper and 40% of bauxite and iron ore production (Walser, 2000; WEF, 2016). In Ghana, the mining sector has historically served as the backbone of national revenues, contributing over half of all Foreign Direct Investment (FDI), one-third of export earnings, and remaining the largest tax-paying sector (Ghana Chamber of Mines, 2022). The Ghana Statistical Service reported that the sector contributed GHS 7.3 billion to the economy in Q3 2023, up from GHS 5.8 billion in Q2 2023, with the large-scale sub-sector's share of national output rising from 70.87% to 96.52% between 2020 and 2021.

Despite these macro-level contributions, Ghana's mining operations have generated severe and compounding harms especially in the communities where it is mined. Environmental damage is pervasive, there is high concentrations of arsenic, mercury, cyanide, uranium, and other toxic metalloids that have contaminated rivers adjacent to mining communities, causing organ tumours and dermal malignancies (Lv et al., 2021; Acheampong et al., 2017). The Asukokor River at Suhyenso, a small community near Obuasi, and the Owerri River at Konongo-Odumase, both in the Ashanti Region, are among the most severely affected water bodies (see Figures 1.1 and 1.2, presented in the Results section). Loss of cocoa farms and agricultural land, non- reclamation of mined land, unemployment, communal unrest, and inadequate compensation for displaced landowners are equally documented challenges (Armah et al., 2020).

Further, social unrest and rising illegal mining "galamsey" have been characteristic of Ashanti Region, Ghana's most historically significant mining hub. In communities like, Obuasi, Mpasatia, Konongo, and Manso-Nkwanta, community members argue that mining contracts are finalised without their consultation, and that the benefits of resource extraction accrue primarily to firms and investors rather than to host communities (Adomako-Kwakye & Mensah, 2023). This exclusion exemplifies a poor standard of stakeholder involvement detrimental to the long-term sustainability of the sector.

Central to this study is the concept of a '*social license to operate*' (SLO), which refers to the ongoing, informal approval granted by host communities based on mutual trust and perceived benefit-sharing (Owen & Kemp, 2013). Unlike formal legal permits, an SLO cannot be demanded but must be earned through genuine, consistent community engagement. When firms fail to earn this approval, communities become hostile, disruptions escalate, and operations cannot be sustained without costly security interventions. As one regulatory interviewee in this study observed: '*If you don't have the communal support, you can never be able to do mining... you will not enjoy it.*'

The consequences of this governance deficit extend well beyond operational disruption. Several mining-related conflicts have arisen between companies and local communities across the Ashanti Region, including disputes involving AngloGold Ashanti, Northern Ashanti Mines, and Asanko Galliano Gold, each facing sustained opposition from host community residents. According to the Ghana Chamber of Mines, these clashes have cost lives and property worth millions of Ghana cedis, and carry the potential to deter investment in the sector if left unaddressed. Globally, the International Council on Mining and Minerals (ICMM) reports that mining conflict incidents have risen sharply, from just above 15 incidents in 2002 to over 100 incidents in 2015, an indication that the governance failures documented in this study are neither isolated nor unique to Ghana (ICMM, 2021).

A critical but underexamined dimension of these conflicts is the role of ***conflict triggers***, these are specific conditions or factors that precipitate hostilities between mining firms, community members, and security bodies. Two triggers are particularly salient in the Ashanti context. The first is ***speculative development***, this happens when community members learn that land is slated for exploration, they rapidly erect structures on the area that is earmarked for extraction to qualify for compensation, creating both legal complications and resentment when firms attempt to take possession. The second is ***unpaid or delayed compensation*** to landowners whose properties have been subsumed by mining concessions, a breach of trust that signals to communities that firms neither respect their rights nor honour their commitments. These triggers are not merely the proximate causes of individual disputes, they are symptoms of a structural failure to embed inclusive, transparent, and enforceable stakeholder engagement into mining operations from the outset. When conflict triggers remain unaddressed, communities withdraw the social license they have conditionally extended, and the resulting hostility is both predictable and avoidable.

The international context is equally pertinent. The United Nations and the World Bank have advocated for the integration of ESG policies in mining operations as mechanisms for aligning the extractive sector with the Sustainable Development Goals (SDGs), including SDG 3 (Good Health), SDG 6 (Clean Water and Sanitation), SDG 8 (Decent Work and Economic Growth), SDG 13 (Climate Action), and SDG 16 (Peace, Justice and Strong Institutions) (World Bank, 2021; UNDP, 2022). Ghana's mining sector is expected to align with these global standards, yet a critical governance gap persists between statutory obligations and operational reality.

A key conceptual contribution of this study is the operational distinction between Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) frameworks in the Ghanaian mining context. CSR, as practised in this context, refers to voluntary, discretionary, and often reactive philanthropy, infrastructure donations, scholarship schemes, or health outreach, that is self-regulated, carries no accountability mechanism, and can be discontinued at will (Carroll, 2016; Baden, 2016; Jenkins & Yakovleva, 2006; Jenkins, 2004; Isacowitz et al., 2022). ESG frameworks, by contrast, are structured, independently audited compliance and reporting systems that require firms to measure, disclose, and manage their environmental, social, and governance performance against internationally recognised benchmarks, with legal and reputational consequences for non-compliance (Majoch et al., 2017; De Villiers et al., 2022; Vitoh & Serbeh-Boateng, 2024). The empirical evidence gathered in this study demonstrates that the widespread substitution of ESG obligations with CSR initiatives constitutes a governance failure with direct, measurable consequences for communities (Pouresmaieli et al., 2024; Amos, 2024; Singal, 2021; Verrier et al., 2022).

Central to Ghana's formal environmental governance architecture are two regulatory instruments directly relevant to this study. The Environmental Impact Assessment (EIA), governed by Environmental Assessment Regulations L.I. 1652, mandates that no Environmental Permit shall be issued by the Ghana Environmental Protection Agency (EPA) unless a compliant EIA, encompassing community consultation and public hearings, has been conducted and an Environmental Impact Statement (EIS) submitted. The Akoben Rating System, introduced by the EPA, is Ghana's performance-based environmental disclosure programme that assigns colour-coded ratings (Gold, Green, Blue, Orange, and Red) to mining firms based on environmental compliance criteria, using public disclosure as a tool to incentivise improved performance (Allotey et al., 2011; Bawua & Owusu, 2018). Despite these instruments, empirical findings in this study show that 61% of community respondents dispute that EIA processes are meaningfully conducted, and 82% dispute ESG implementation, indicating that regulatory frameworks exist but remain structurally disconnected from community experience.

Given this interplay between economic interests, environmental harm, and community rights, this study examines the extent of stakeholder engagement and corporate responsiveness in the Ashanti Region's mining sector. The findings aim to contribute to policy discourse and provide actionable recommendations for equitable, enforceable, and inclusive sustainable mining governance in Ghana.

Statement of the Problem

The mining sector in Ghana presents a complex paradox, while it significantly contributes to national economic growth, accounting for over half of all Foreign Direct Investment, one-third of export earnings (Ghana Chamber of Mines, 2022), and GHS 7.3 billion to the economy in Q3 2023 (Ghana Statistical Service, 2023), it simultaneously poses severe challenges to sustainable development, particularly at the community level (Armah et al., 2020; Hilson, 2012). This study addresses four interconnected problems that underscore the need for a comprehensive examination of sustainable mining practices in Ghana's Ashanti Region.

Ineffective Stakeholder Engagement: There is a marked disparity between mining companies' reported progress on stakeholder engagement and the actual experiences of community members. This gap reflects fundamental weaknesses in community participation in decision-making processes, as documented by Ansu-Mensah et al. (2021), who found that effective stakeholder participation is critical for creating conditions necessary for sustainable mining operations, and by Adomako-Kwakye and Mensah (2023), who established that mining contracts in the Ashanti Region are frequently finalised without genuine community consultation.

Misalignment of Economic Benefits and Community Impact: While mining contributes substantially to national economic indicators, many host communities in the Ashanti Region remain underdeveloped. Community grievances centre on environmental pollution, loss of farmland, destruction of water bodies, insufficient compensation for displacement, and loss of livelihoods (Armah et al., 2020; Mensah & Okyere, 2014). This misalignment raises fundamental questions about the equitable distribution of mining benefits and the sector's role in fostering sustainable local development aligned with SDG 8 (Decent Work and Economic Growth) and SDG 16 (Peace, Justice and Strong Institutions) (World Bank, 2021; UNDP, 2022).

Inadequate Implementation of Sustainability Practices: Although regulatory frameworks and global sustainability standards exist, their implementation within Ghana's mining sector remains inconsistent. Regulatory instruments, including the Environmental Impact Assessment (EIA) framework under L.I. 1652 and the Akoben Rating System, have not been fully effective in enforcing comprehensive sustainability standards, partly due to limited enforcement resources, fragmented inter-agency coordination, and corporate resistance (Bawua & Owusu, 2018; Acheampong & Ansa, 2017). The widespread substitution of enforceable Environmental, Social, Government (ESG) frameworks with discretionary Corporate Social Responsibility (CSR) programmes creates a structural accountability gap that perpetuates community distrust, fuels social unrest, and drives illegal mining activity (Idemudia, 2014; Hilson, 2012; Isacowitz et al., 2022).

Limited Understanding of Community Perspectives on Sustainable Mining: There is a lack of comprehensive research capturing the views, experiences, and definitions of sustainable mining from the perspective of host communities in Ghana's Ashanti Region. As Tuokuu et al. (2019) note, communities actively involved in environmental policy formulation tend to identify with and comply with those policies. Yet, the stakeholder landscape in the Ashanti Region is dominated by powerful figures, including chiefs, regulatory officials, and industry representatives, while women, youth, and ordinary community members are systematically excluded (Henriques & Brilha, 2017). This gap in understanding hinders the development of truly inclusive and effective sustainability strategies that respond to local needs and concerns.

This study aims to address these multifaceted issues by investigating the extent of stakeholder participation and company responsiveness in addressing community concerns over sustainable mining activities in the Ashanti Region. By focusing on these aspects, the research seeks to contribute to the development of more sustainable, equitable, and community-oriented mining practices in Ghana. The findings will inform policy decisions, strengthen regulatory frameworks, and enhance corporate sustainability strategies in line with international ESG standards and Ghana's national development agenda (Vitoh & Serbeh-Boateng, 2024; Pouresmaieli et al., 2024; Amos, 2024).

Gaps in the Literature

Despite a growing body of scholarship on mining governance in sub-Saharan Africa, several critical gaps remain inadequately addressed in the existing literature. These gaps collectively limit the extent to which prior studies can inform effective, enforceable, and community-centred mining governance in the Ghanaian context. This study directly addresses three such gaps, each of which shapes the theoretical framing, methodological design, and empirical contribution of the research.

Gap 1: Absence of an Operational ESG-CSR Distinction in Ghana's Mining Governance Literature

No study has operationally distinguished ESG from CSR specifically within Ghana's mining governance context. Existing work on Ghana's mining sector focuses predominantly on CSR and sustainability, examining how domestic regulation shapes CSR practices (Andrews, 2016), how CSR decisions are made during mineral exploration (Dauda, 2024), how CSR and stakeholder engagement operate at Newmont Ahafo (Ansu-Mensah et al., 2021), and how sustainable mining is largely equated with reclamation projects and disjointed CSR programmes rather than a structured sustainability framework (Essah & Andrews, 2016). Further studies trace the evolution of CSR at African mines using Ghana as a key case (Hilson et al., 2019), assess the socio- economic and environmental impacts of mining-driven CSR in host communities (Shubita et al., 2023), and synthesise green accounting and environmental accountability in Ghanaian mining communities (Affum et al., 2025). Quantitative work models CSR behaviours and mechanisms among Ghanaian mining companies

(Opoku Marfo, 2024). However, none of these studies operationally distinguish ESG from CSR within Ghana's mining governance arrangements, for example, by separately specifying ESG versus CSR indicators, decision-rights, or accountability mechanisms in company-community-state interactions. Only one paper explicitly discusses ESG for Ghana (Vitoh & Serbeh-Boateng, 2024), and it is cross-sectoral rather than mining-specific. This study addresses that gap by providing a contextualised, operational distinction between CSR and ESG as applied to Ghana's Ashanti Region mining sector.

Gap 2: Absence of Mixed-Method, Multi-Stakeholder Studies in Ghana's Mining Governance

Existing studies on Ghanaian mining governance overwhelmingly rely on single methods and/or a single primary stakeholder group, rather than genuinely mixed-method designs that integrate community, firm, and regulator perspectives in one coherent study. Qualitative case studies dominate, including interview- and FGD- based analyses of sustainable development in gold mines (Tuokuu et al., 2019), traditional authorities' interactions with modern institutions (Tenkorang, 2021; 2023), governance challenges in ASM and galamsey operations (Adu-Baffour et al., 2021; Arthur-Holmes & Ofosu, 2024; Sefa-Nyarko, 2024), and local benefit- sharing platforms (Kasimba & Lujala, 2022). Even where multiple stakeholder categories are sampled, designs remain qualitative-only. A few contributions introduce more structured elements, such as Q-methodology (Tuokuu et al., 2019; Proksik et al., 2025) or household surveys on sand mining governance (Essaw et al., 2025), but these still centre primarily on one stakeholder category. No identified study combines qualitative and quantitative data across community, firm, and state/regulator actors within a single mixed-methods governance framework. This study addresses that gap by simultaneously triangulating perspectives from 74 community respondents, mining firm representatives, and seven regulatory bodies.

Gap 3: Akoben's Narrow Treatment as an Environmental Rating Tool Rather Than a Broader Sustainability Instrument

Existing work on Ghana's Akoben system treats it mainly as an environmental rating and disclosure tool, not as a fuller sustainability or ESG governance instrument. Descriptive and case-study evaluations examine its design, rating logic, and environmental performance effects, often highlighting improvements in compliance alongside weaknesses such as poor legal backing, limited publicity, and weak incentives (Bawua & Owusu, 2018; 2023; Bedu-Addo, 2022; Bedu-Addo et al., 2019; Boatemaa Darko-Mensah & Okereke, 2013). These studies provide useful programme diagnostics, including inadequate attention to cumulative pollutant impacts and human health, reliance on existing EPA acts rather than a dedicated statute, and an inability to disaggregate key pollutants in ways that map onto broader sustainability concerns. However, Akoben is not systematically theorised or empirically tested as a partial sustainability instrument that interacts with other regulatory, social, and market mechanisms. The literature stops at environmental performance ratings and disclosure, without embedding Akoben in a wider sustainability/ESG regulatory architecture or examining its distributional, social, and long-term governance implications. This study addresses that gap by evaluating Akoben within a comprehensive three-pillar ESG framework and assessing whether it, in combination with other instruments, can close the governance deficit documented in the Ashanti Region.

Objectives and Research Questions

This study pursues four interrelated objectives, each corresponding to a guiding research question (RQ). Together, they constitute the analytical framework through which stakeholder participation and corporate responsiveness in Ghana's Ashanti Region mining sector are examined.

Objective 1: To evaluate the effectiveness of stakeholder participation in the decision-making processes of mining companies in the Ashanti Region. *RQ1: To what extent do mining companies in the Ashanti Region involve stakeholders in decision-making processes?*

Objective 2: To assess the responsiveness of mining firms to community concerns about sustainability. *RQ2: How responsive are mining companies to community concerns regarding sustainability?*

Objective 3: To identify structural gaps in stakeholder engagement and propose evidence-based policy recommendations. *RQ3: What challenges hinder effective stakeholder engagement and corporate responsiveness in Ghana's mining industry?*

Objective 4: To examine international best practices in mining governance and assess their applicability in Ghana's context. *RQ4: What best practices can be recommended to enhance sustainable mining governance in the Ashanti Region?*

Significance of the Study

This study makes both empirical and conceptual contributions to the literature on mining governance in sub-Saharan Africa. Empirically, it generates primary data from four major mining communities in the Ashanti Region, capturing the perspectives of 81 participants across community members, mining firms, and seven regulatory bodies. Conceptually, it elaborates the operational distinction between CSR and ESG within the Ghanaian mining context, an area inadequately addressed in the existing literature, and provides a framework for understanding why voluntary CSR cannot substitute for enforceable ESG in achieving community sustainability outcomes. The findings are directly relevant to policymakers, mining regulators, firms, and civil society organisations working to align Ghana's extractive sector with international sustainability standards and the UN SDGs.

Scope of the Study

The study focuses on small-scale and large-scale gold mining activities in four communities across the Ashanti Region, specifically; Obuasi, Manso Nkwanta, Konongo, and Mpasatia. Illegal artisanal mining operations, "galamsey," are excluded because their operators are unregistered, deny access to researchers, and present safety risks. The study employs a mixed-methods design combining structured surveys, semi-structured interviews, and secondary analysis of mining firms' sustainability reports. The Ashanti Region was selected because it hosts the largest concentration of registered large-scale mining firms in Ghana and has been the site of the most documented firm-community conflicts.

Organisation of the Paper

Section 1 introduces the paper, Section 2 presents the theoretical and empirical literature review. Section 3 details the research methodology. Section 4 presents the results and discussion, integrating quantitative and qualitative findings. Section 5 offers recommendations, and Section 6 concludes the paper.

LITERATURE REVIEW

Introduction

This chapter reviews the theoretical frameworks and empirical literature that underpin the study. The theoretical review covers sustainable development, Freeman's stakeholder theory, and, critically, the operational distinction between CSR and ESG frameworks within the Ghanaian mining context. The empirical review synthesises findings from studies on stakeholder engagement, regulatory governance, and sustainability practices in Ghanaian and comparable international mining contexts. Literature from Africa and other regions is drawn on to provide a comprehensive and comparative understanding.

THEORETICAL REVIEW

Sustainable Development

Sustainable development, first articulated in the 1987 Brundtland Report ('Our Common Future'), is defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987). This principle underpins the study's normative framework. Applied to mining, it demands that resource extraction be conducted in a manner that balances economic output with

environmental conservation and equitable community benefit. The Brundtland Commission further recognised that sustainability issues are most acute in contexts where poverty and inequity are endemic, a characterisation that aptly describes many of Ghana's mining-affected communities.

Globally, the UN Sustainable Development Goals (SDGs) operationalise sustainable development into 17 goals and 169 targets covering poverty alleviation, climate action, gender equality, and institutional governance. For mining, the World Economic Forum (2016) has mapped specific SDG obligations onto mining operations: SDG 3 (Good Health and Well-Being) requires firms to minimise health impacts from pollution; SDG 6 (Clean Water and Sanitation) demands water conservation and quality monitoring; SDG 8 (Decent Work and Economic Growth) calls for decent employment and community economic opportunities; SDG 13 (Climate Action) requires emissions reduction and climate resilience; and SDG 16 (Peace, Justice and Strong Institutions) demands peaceful community relations and robust regulatory institutions. The evidence presented in this study demonstrates that Ghana's mining firms in the Ashanti Region fall significantly short of these obligations.

Freeman's Stakeholder Theory

This study is theoretically grounded in Freeman's (1984) stakeholder theory, which holds that corporations have obligations not only to shareholders but to all parties who can affect or are affected by the firm's activities. As Freeman and Dmytriyev (2017) assert, a 'stakeholder' is any party or person who can either influence or is influenced by the success of a company's objectives. Effective identification and engagement of stakeholders before and during operations creates cooperative working environments, clarifies responsibilities, and fosters the conditions for sustainable organisational outcomes.

Freeman and Velamuri (2006) further argue that in ideal conditions, stakeholder engagement creates value by enabling firms to meet the interests of multiple constituent groups simultaneously. Andriof and Waddock (2002) describe stakeholder engagement as a variant of CSR, while Jones and Wick (1999) emphasise that it demands the establishment of structured relations between constituent groups, processes, and measurable outcomes. Applied to the Ghanaian mining context, stakeholder theory implies that mining firms must develop inclusive, regular, and transparently documented engagement with community members, regulatory bodies, women, youth, and other affected groups, not merely with the powerful figures, chiefs, industry representatives, who currently dominate the process.

CSR versus ESG: Operational Definitions in the Ghana's Mining Context

A critical conceptual distinction that informs this study, and one that is the operational difference between Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) frameworks. Drawing on Carroll's pyramid of CSR, corporate social responsibility encompasses the economic, legal, ethical, and philanthropic "discretionary" responsibilities that society expects of business at a given point in time, where economically and legally based responsibilities are required, ethical responsibilities are expected, and philanthropic responsibilities are voluntary and thus merely desirable, sitting at the apex of the CSR pyramid as corporate "good citizenship" (Carroll, 2016; Baden, 2016). ESG, by contrast, is a standardised, benchmark-based system in which investors and firms measure, disclose, and are assessed on their environmental, social, and governance performance through structured, comparable, and often independently assured reports that enable accountability to capital markets and other stakeholders (Majoch et al., 2017; De Villiers et al., 2022; Luo & Tang, 2023).

In the Ghanaian mining context, CSR include infrastructure donations (roads, clinics, schools), scholarship schemes, or occasional livelihood support. Critically, CSR programmes are: (a) not legally mandated; (b) not subject to independent external audit; (c) not required to meet any pre-defined benchmark or standard; (d) not transparently reported in a standardised format; and (e) discontinuable at the firm's discretion. In essence, CSR is self-enforced and voluntary, which is precisely why, as interviewees in this study confirmed, firms only undertake CSR '*after they are requested by the mining community*.' This reactive posture means CSR does not constitute a proactive governance mechanism.

ESG frameworks, by contrast, are structured compliance against internationally recognised benchmarks, such as the Global Reporting Initiative (GRI), the Equator Principles, or the UN Principles for Responsible Investment. ESG compliance is subject to: (a) independent external auditing; (b) investor scrutiny and capital market discipline; (c) increasingly, statutory reporting requirements; and (d) reputational and legal consequences for misrepresentation. ESG reporting creates enforceable accountability that CSR fundamentally cannot.

The Akoben Rating System, Ghana's Environmental Protection Agency's performance-based public disclosure programme, addresses some elements of ESG but remains limited. Allotey et al. (2011) and Bawua and Owusu (2018) document that Akoben focuses primarily on environmental metrics such as emissions, water management, land reclamation, and does not adequately capture the social and governance dimensions that are most salient to affected communities, which are, employment equity, community consultation, benefit-sharing, or grievance mechanisms. A comprehensive ESG framework integrating all three pillars is thus necessary to close the governance gap that Akoben alone cannot address. The substitution of ESG with CSR is not merely a semantic difference. It determines whether mining firms face enforceable accountability or merely aspirational expectations, and whether communities have structured recourse mechanisms when firms underperform.

Ghana's involvement in sustainability governance has been developing over many years through both international agreements and local policies. The country's involvement in the 1972 Stockholm Conference on the Human Environment signified an early acknowledgment of the connection between economic development and environmental responsibility. Two decades after that, at the 1992 UN Earth Summit in Rio de Janeiro, Ghana showed its support by agreeing to important international agreements focused on protecting nature, dealing with climate change, and fighting land degradation. This showed that Ghana was in line with the new global efforts to focus on sustainability. These international promises were then put into action through several important steps taken at home. This included creating the Environmental Protection Agency in 1994, making the first National Environmental Policy in 1995, passing the Renewable Energy Act 2011 (Act 832), and the Bank of Ghana starting to use Sustainable Banking Principles in 2019. Vitoh and Serbeh-Boateng (2024) follow this path of development and show that Ghana has been slowly adding ESG principles into its national rules, even though companies have not always followed them consistently. ESG frameworks have two main roles in this situation. They help companies and governments follow responsible practices, and they give investors clear standards to assess the sustainability efforts of the businesses they invest in (Vitoh & Serbeh- Boateng, 2024). Despite these institutional advancements, the implementation of ESG at the corporate level in Ghana still encounters structural challenges such as definitional ambiguity, inconsistent reporting standards, and varying enforcement capacity (Vitoh & Serbeh-Boateng, 2024; Hilson et al., 2022). The governance problem found in this study is not unusual, but shows a wider issue across the country. While there is a legal framework for sustainability in place, it hasn't been fully turned into real actions by companies, especially in the extractive industry.

Empirical Review

Stakeholder Engagement in Mining

Ansu-Mensah et al. (2021) examined CSR and stakeholder engagement in Ghana's mining sector and found that effective stakeholder participation is critical for creating the harmony necessary for sustainable mining operations. Tuokuu (2019) confirmed that communities actively involved in environmental policy formulation tend to identify with and comply with those policies, underscoring the governance efficiency of inclusive engagement. O'Faircheallaigh (2010) further argued that community representation in policymaking processes enhances trust and strengthens regulatory compliance.

ISO 26000, the international standard for social responsibility, directs organisations to establish structured conditions for interaction with their stakeholders (Del Baldo & Aureli, 2019). Ranangen and Lindman (2017) distinguish between primary stakeholders, whose continued involvement is critical to organisational success, and secondary stakeholders. Both categories, they argue, are critical to long-term sustainability. Andrews et al. (2017) identify a progression of engagement strategies, recognition, consultation, collaboration, discourse, and interaction, that mining firms can deploy at varying levels of depth. The empirical evidence from the Ashanti

Region, however, shows that firms consistently operate at the lowest levels of this ladder, such as information-giving and occasional dialogue, rather than genuine consultation.

Regulatory Frameworks and EIA Implementation

Ghana's regulatory architecture for mining includes, the Environmental Protection Agency Act (Act 490); the Minerals and Mining Law of 1986; the Water Use Regulation 2002 (L.I. 1692); the Minerals and Mining Act Health, Safety and Technical Regulations 2012 (L.I. 2182); and the Forestry Commission Act 1996 (Act 571). The EIA process, governed by Environmental Assessment Regulations L.I. 1652, mandates that no Environmental Permit shall be issued by the EPA unless a compliant EIA is submitted. This multi-stage process, encompassing screening, scoping, draft terms of reference, public hearings, and finalisation of an Environmental Impact Statement (EIS), is designed to be rigorous and participatory.

However, empirical evidence consistently shows that EIA processes are frequently inadequately conducted, with insufficient community participation and weak post-permit monitoring (Acheampong & Ansa, 2017). Hamor (2004), in a comparative review of global mining regulations, identified fragmented and isolated regulatory frameworks as a key driver of environmental degradation and community unrest, recommending combined cross-institutional approaches. The study of Adomako-Kwakye and Mensah (2023) found that mining contracts are frequently finalised in the Ashanti Region without genuine community consultation, a direct violation of the spirit, if not always the letter, of the EIA framework.

The Akoben Rating System, while valuable as an environmental disclosure tool, has two principal limitations, firstly, it does not address environmental issues as comprehensively as the Environmental Sustainability Index (ESI) or Environmental Performance Index (EPI), and it lacks emphasis on the economic and social pillars of sustainability that are most relevant to affected communities (Abd Razack et al., 2013). A more holistic, three-pillar sustainability framework is required.

CSR, ESG, and Corporate Accountability

The tension between CSR and ESG in Ghana's mining sector is empirically well-documented. Idemudia (2014) demonstrated that CSR programmes in Africa's extractive industries frequently serve as public relations instruments rather than genuine community welfare mechanisms, reflecting the profit-driven priorities of firms rather than community needs. Mensah and Okyere (2014) found that mining companies in Ghana prioritise investor relations over community engagement, with CSR initiatives often reactive, triggered by community pressure, rather than proactively embedded in corporate strategy.

Hilson (2012) further documented a particularly damaging practice, that is, large-scale mining firms subletting portions of their concessions to illegal artisanal miners whose activities remain unchecked. Products from these illegal operations return to the supply chains of registered firms, enabling them to benefit financially while evading environmental and social obligations. As documented in this study's qualitative data, this practice keeps communities subdued through selective compensation to powerful community leaders, obviating the need for genuine ESG compliance.

Gender, Inclusivity, and Sustainability

An emerging body of literature highlights the systematic exclusion of women and youth from mining-related governance processes. Henriques and Brilha (2017) documented the significant barriers women face in accessing mining employment and participation in community consultations. Gender-sensitive policies and targeted interventions are recommended to enhance inclusivity. This study corroborates these concerns: the stakeholder mapping processes used by mining firms in the Ashanti Region frequently exclude women and youth, the very groups most vulnerable to the negative social impacts of mining, resulting in governance processes that are structurally biased towards powerful male community figures.

Emerging Issues: Renewable Energy, SDG Integration, and Revenue Sharing

Recent literature explores the integration of mining operations with the SDG Agenda 2030 and the African Union's Agenda 2063, emphasising the importance of aligning corporate strategies with global sustainability targets. Research indicates that responsible mining can contribute positively to multiple SDGs, but inadequate regulatory frameworks and accountability mechanisms hinder realisation of these contributions (WEF, 2016). Studies from Chile, Peru, Bolivia, Papua New Guinea, and Mali document substantial economic and social benefits where community engagement and revenue-sharing models are properly structured (World Bank, 2021). These international examples offer instructive comparisons for Ghana's reform agenda.

CONCLUSION

The literature review identifies five converging themes relevant to this study: (1) the necessity of structured, inclusive, and legally underpinned stakeholder engagement; (2) the limitations of Ghana's current regulatory frameworks in enforcing comprehensive sustainability; (3) the critical and operationally distinct difference between voluntary CSR and enforceable ESG compliance; (4) the exclusion of marginalised groups, particularly women and youth, from governance processes; and (5) the international best practice models that demonstrate what effective mining governance can achieve. These themes frame the empirical investigation that follows.

METHODOLOGY

Research Design

This study adopts a mixed-methods research design, integrating qualitative and quantitative approaches to provide a comprehensive analysis of stakeholder engagement and corporate responsiveness in the Ashanti Region's mining sector. The mixed-methods framework was selected because the research questions require both the depth of qualitative insight and the breadth of quantitative measurement, which are, understanding the 'how' and 'why' of stakeholder engagement dynamics (Johnson & Onwuegbuzie, 2004; Kabir, 2016), as well as quantifying the distribution of community perceptions across the study area. A deductive orientation guides the analysis, drawing on theoretical propositions from stakeholder theory and sustainable development frameworks.

Study Area and Background

The study focuses on four mining communities in the Ashanti Region of Ghana, namely, Obuasi, Manso Nkwanta, Konongo, and Mpasatia. The Ashanti Region covers approximately 24,389 square kilometres in southern Ghana and has long been the country's principal gold-producing area. The region's gold mining history dates to the pre-colonial Ashanti Kingdom, and modern large-scale extraction by multinational corporations has accelerated since the late 19th century. One of the most prominent firms operating in the region is AngloGold Ashanti, headquartered in Johannesburg. As of 2021, the Minerals Commission reported 34 large-scale registered mining firms operating in Ghana, with a significant concentration in the Ashanti Region. The four study communities were selected because, they collectively host both large-scale and small- scale operations, they have been the sites of documented firm-community conflicts, and their relative geographical proximity enhanced logistical efficiency during field data collection.

Population and Sampling

The study population comprises all registered mining firms, regulatory bodies, community-based groups, community leaders, and community members in the four study communities. The study sampled 81 participants in total. A total of 74 respondents completed face-to-face structured survey questionnaires, approximately 20 per community, drawn from community members, community-based groups, and community leaders. Seven key informant interviews were conducted with representatives of major regulatory bodies.

A combination of sampling approaches was employed. Simple random sampling was applied to community members, community leaders, and community-based groups. Purposive sampling was used for regulatory bodies and mining firm representatives, ensuring participants held direct, relevant knowledge. The selection of regulatory participants was comprehensive, encompassing all major oversight institutions, namely, the Environmental Protection Agency, Minerals Commission, Ministry of Lands and Natural Resources, Forestry Commission; Ministry of Science, Environment, Technology and Innovation, Ministry of Sanitation and Water Resources, and the Ghana Chamber of Mines. This breadth of regulatory participation enhances the representativeness and authority of the qualitative data.

The sample size follows the precedent of related studies, Ansu-Mensah et al. (2021) used 21 participants across diverse stakeholder groups; Tuokuu (2019) employed focus group discussions with 20 participants. The 81-participant sample in this study, drawn across four communities and seven regulatory bodies, provides a robust foundation for both quantitative and qualitative analysis.

Data Collection Methods

Primary quantitative data were collected through structured questionnaires organised into seven thematic sections: (1) demographic characteristics; (2) EIA knowledge and implementation; (3) ESG frameworks; (4) Akoben Rating knowledge; (5) stakeholder participation; (6) company responsiveness; and (7) address of community concerns. Sections two through seven employed a five-point Likert scale (Strongly Agree to Strongly Disagree), enabling respondents to indicate their level of agreement with specific claims about mining firms' practices. Likert-scale responses were coded numerically and subjected to frequency distribution analysis.

Qualitative primary data were collected through semi-structured key informant interviews with regulatory bodies and mining firm representatives. An interview guide was used to elicit detailed, open-ended responses about the nature, frequency, and composition of stakeholder engagement; the alignment of firm practices with EIA, ESG, and Akoben frameworks; and the causes and consequences of firm-community tensions. All interviews were audio-recorded with participant consent, transcribed verbatim, and retained for thematic analysis.

Secondary data were drawn from peer-reviewed journals, official government reports, mining firms' sustainability reports (including AngloGold Ashanti's Sustainability Reports for 2022 and 2023), the Ghana Statistical Service, and databases including Scopus, JSTOR, and Google Scholar.

Data Analysis

Quantitative data were analysed using descriptive statistics, specifically frequency distribution tables, to describe the distribution of community perceptions across the study's key variables, which are, EIA implementation, ESG implementation, stakeholder engagement, company responsiveness, and community concerns. Cumulative percentages were calculated to facilitate interpretation.

Qualitative data were analysed using thematic analysis procedures, facilitated by NVivo 14 software. The software enabled systematic coding of interview transcripts, identification of recurring themes, and organisation of conceptual categories across stakeholder groups. Word-frequency exploratory analysis was additionally applied to identify the most salient terms in participants' accounts of sustainability governance, providing a data-driven check on the thematic analysis. Triangulation across survey data, interview data, and secondary sources, such as sustainability reports, regulatory documents, was employed throughout to enhance the validity and reliability of findings.

Validity and Reliability

Validity was strengthened through triangulation of multiple data sources and methods, and through the purposive selection of regulatory participants with direct, authoritative knowledge of the subject matter. Reliability was supported by the use of a structured survey instrument administered consistently across all four

communities, and by the use of NVivo software to ensure systematic and transparent coding of qualitative data. The quality of participants, in terms of both relevance, appropriate stakeholder types, and representation; right numbers and diversity, further supports the reliability of the findings.

Ethical Considerations

The study adhered to established ethical research guidelines throughout. All participants provided informed consent prior to data collection, and participation was entirely voluntary. Confidentiality and anonymity were maintained, as in, regulatory interviewees are referenced by number, Interviewee 1-7, rather than by name or institution. Survey respondents were not individually identified. Illegal mining "galamsey" operations were excluded, both for ethical integrity and researcher safety.

Limitations

The study's reliance on aggregated stakeholder responses, treating all community members collectively, limits the ability to differentiate perspectives across specific subgroups such as women, youth, or farmers. Future research should explore these distinct viewpoints for a more granular understanding of firm-community dynamics. Additionally, variations in community-specific experiences with different mining firms suggest that localised, community-by-community assessments would provide richer policy-relevant insights.

Directions for Future Research

This study identifies three priority directions for future scholarly investigation. First, future research should employ disaggregated, subgroup-specific sampling to capture the distinct experiences of women, youth, farmers, and displaced landowners, groups whose perspectives are currently absorbed into aggregate community responses and rendered analytically invisible. Targeted mixed-methods studies focused on these marginalised groups would substantially enrich the evidence base for gender-sensitive and inclusive mining governance policy (Henriques & Brilha, 2017; Tuokuu et al., 2019). Second, longitudinal research designs would enable scholars to assess whether governance reforms, particularly any transition from voluntary CSR to mandatory ESG reporting, produce measurable improvements in community outcomes over time, a causal question that cross-sectional designs such as the present study cannot resolve (Vitoh & Serbeh-Boateng, 2024; Pouresmaieli et al., 2024). Third, comparative studies across Ghana's other major mining regions, including the Western Region and Upper West Region, would test the generalisability of the Ashanti Region findings and identify whether the structural disconnect between regulatory frameworks and community experience is region-specific or a national-level governance failure (Hilson et al., 2019; Essah & Andrews, 2016).

RESULTS AND DISCUSSION

Introduction

This section presents findings from both the quantitative survey analysis and the qualitative thematic analysis, integrating them to provide a comprehensive account of stakeholder engagement and corporate responsiveness in the Ashanti Region's mining communities. The results are organised around the study's primary objectives, that is, evaluating the extent and quality of stakeholder engagement, and assessing corporate responsiveness to community sustainability concerns. Key quantitative findings are presented in frequency tables and contextualised with interview data, word-frequency analysis findings, and comparative references to existing literature.

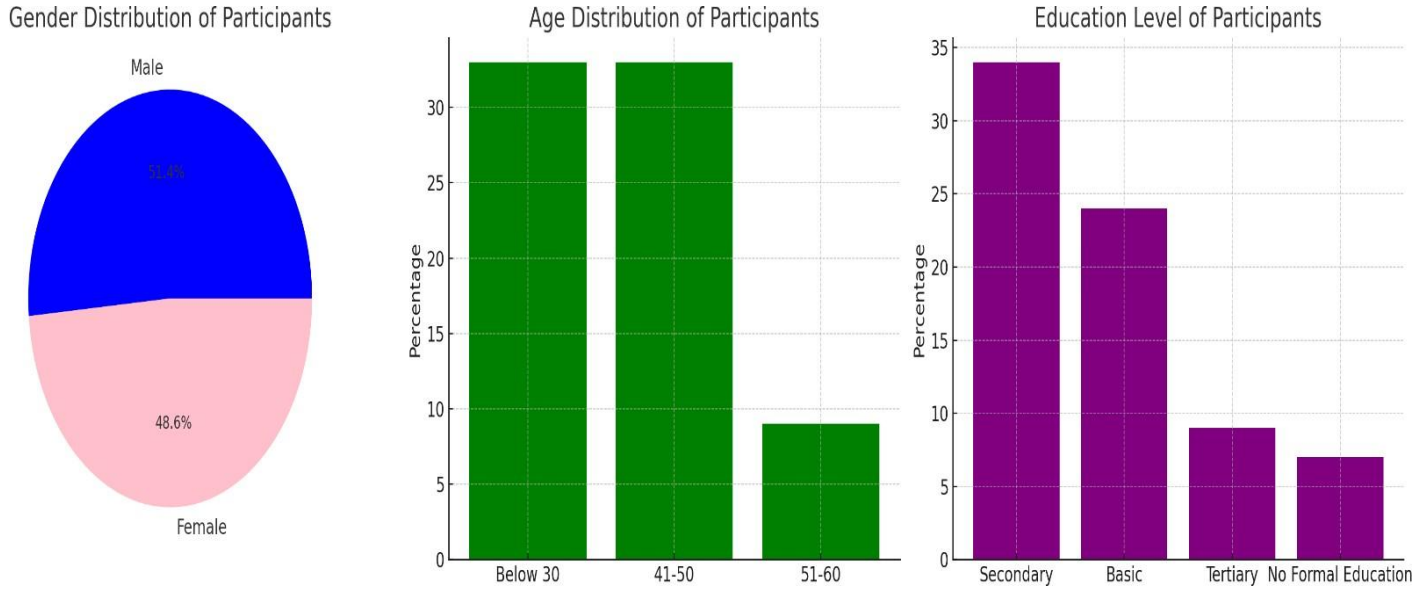
The overarching narrative that emerges from the data is one of a systematic and structural disconnect, between firms' reported commitments to sustainability and communities' lived experiences, between the statutory requirements of Ghana's EIA and ESG governance frameworks and their implementation in practice, and between the high-level language of CSR philanthropy and the binding obligations of ESG accountability.

Participant Demographics

The 74 community survey respondents comprised 38 males and 36 females. Some 33% were below 30 years of age and a further 33% were aged between 41 and 50 years, reflecting a broad generational spread. In terms of educational attainment, 34% had secondary education and 24% had basic education, with 9% holding tertiary qualifications and 7% having no formal education. Some 97% were employed in the private sector, reflecting the predominantly self-entrepreneurial character of these communities, where limited formal education constrains access to public-sector employment. The seven regulatory interviewees represented all major statutory bodies with oversight responsibility for mining in Ghana.

Figure 1 below provides a visual summary of the demographic distribution, presenting the gender breakdown, age distribution, and education levels of survey respondents.

Figure 1: Demographic Profile of Survey Respondents



Implementation of Sustainability Frameworks

Environmental Impact Assessment (EIA)

The severe pollution of the Asukokor River in Obuasi, and the Owerri River in Odumase-Konongo provides evidence of the environmental and spatial conditions prevailing in the study communities. These water contamination in rivers adjacent to mining operations in the Ashanti Region support conditions that are directly attributed to the inadequate implementation of EIA and ESG frameworks identified in this study.

A further dimension of concern is the alarming proximity of active mine workings to an immediately adjacent residential township in the Ashanti region, in this case, only a boundary wall separates the mine's operational area, including the mine shaft, ore processing facilities, and heavy industrial equipment, from densely populated residential streets. Pollutants including particulate matter, sulphur dioxide, and cyanide fumes generated during processing and blasting operations migrate across this boundary, exposing residents to chronic respiratory illnesses such as occupational asthma and bronchitis (Lv et al., 2021). The continuation of mining operations under these conditions is fundamentally unsustainable without independently audited mitigation measures and real-time air quality monitoring disclosed to the public.

Table 1 presents community perceptions of mining firms' EIA implementation. Some 61% of respondents disagree or strongly disagree that mining firms undertake EIA strategies, while only 13% agree or strongly agree.

Table 1: Firms' Undertaking of EIA Strategies (n=74)

Response	Frequency	Percent (%)	Cumulative (%)
Strongly Agree	4	5.41	5.41
Agree	6	8.11	13.2
Somehow Agree	16	21.62	35.14
Disagree	45	60.81	95.95
Strongly Disagree	3	4.05	100.00
Total	74	100.00	—

These findings are significant given that EIA is a statutory precondition for obtaining an Environmental Permit under Regulation 3 of L.I. 1652. Regulatory interviewees confirmed that the EPA mandates a multi-stage EIA process including community consultation and public hearings before any Environmental Permit is issued. The full account provided by Interviewee 2, a regulatory official, is instructive:

'We want to be sure that it is not just sitting in your office and writing, but that you have gone to the grassroots. So, we go to the field and we find out. OK. Community B. When the people met you, what did they say? What did you see? To affirm what they have put in their report. And then that is during the recognitions by the EPA team before the public hearing. Then at the public hearing, the company will do a presentation of the project. Thereafter, we allow the community members to bring questions or issues out and then they are delegated, those that the company can answer they do readily, and those that they can't, we take note of them and then they address them in their EIS.'

Interviewee 2 (EPA Regulatory Official)

The stark disconnect between this formal requirement and the community's perception, with 61% disputing EIA implementation, this suggests that while statutory processes may be satisfied on paper, they are not experienced as meaningful or visible by communities. This finding aligns with Acheampong and Ansa (2017), who found EIA processes in Ghana to be inadequately conducted with insufficient community participation.

ESG Policy Implementation

The level of community disagreement with ESG implementation is substantially higher than for EIAs. Table 2 shows that 83% of respondents disagree or strongly disagree that mining firms implement ESG policies, with only 5.4% in agreement.

Table 2: Firms' Undertaking of ESG Strategies (n=74)

Response	Frequency	Percent (%)	Cumulative (%)
Strongly Agree	2	2.70	2.70
Agree	2	2.70	5.41
Somehow Agree	8	10.81	16.22
Disagree	61	82.43	98.65
Strongly Disagree	1	1.35	100.00
Total	74	100.00	—

This finding directly reflects the CSR-ESG substitution identified as a core governance failure. Qualitative interview data illuminate the mechanism clearly. Interviewees 3, 4, and 5, mining firm representatives, each described having company-specific environmental and social policies but explicitly stated these were not aligned with standardised ESG or EIA frameworks. As one representative stated: "*We have our policies, we have our environmental policies, we have our social policy... one of our environmental policies is to make sure that our operations... are not operating out of the EPA laws."* While operating within minimum EPA regulatory thresholds may satisfy legal compliance on a narrow technical definition, the adoption of self- defined, non-standardised company policies, ather than internationally recognised ESG frameworks, creates critical accountability gaps, such as, no independent auditing, no transparent reporting against benchmarks, and no community-accessible grievance mechanisms.

'So, you have to be respectful and truthful and open minded. Yeah. This is how you can sustain engagement and this is how you can also be given your social license. Social license simply means that people are buying into what you want to do. So, they are giving you communal support. Communal support is very key in mining. If you don't have the communal support, you can never be able to do mining. You will do it, sometimes you will do it, but you will never enjoy it. Because you always have to bring police, soldiers to come and protect you. How long can you? It's very expensive to keep soldiers and police in your field. So, you need the same people to protect you.'

Interviewee 6 (Community Leader / Regulatory Informant)

This testimony encapsulates the structural logic of the social license, as in, it is not a legal right that firms can demand, but a relational asset that must be continuously earned. The practical cost of operating without it, security deployment, community resistance, reputational damage, far exceeds the investment required to build and sustain genuine engagement. Interviewee 3 similarly underscored the need for government-backed enforcement to make these frameworks operable, '*The government should come in more. It should be more like a law. There should be laws, yes, apart from laws, they should also do consistent monitoring, effective monitoring, because… we have water bodies around… and at the end of the day, because they are lying within your concession, you have to bear liability*.'

NVivo 14 word-frequency analysis of regulatory and firm interview transcripts on sustainability frameworks identified the following dominant terms, such as enforceable, environmental, framework, policies, impact, people, quality, mining, social, water, guidelines, recommendations, and approach. Notably, 'enforceable' emerged as a priority keyword, with interviewees consistently calling for frameworks that move beyond voluntary compliance. This finding, that the firms themselves recognise the need for stronger enforcement, underscores the structural, not merely motivational, nature of the governance gap.

Figure 2 provides a visual comparison of the frequency distributions for both EIA and ESG strategy implementation, clearly demonstrating the dominance of disagreement responses and the substantially larger scale of ESG non-compliance relative to EIA.

Figure 2: EIA and ESG Strategy Implementation

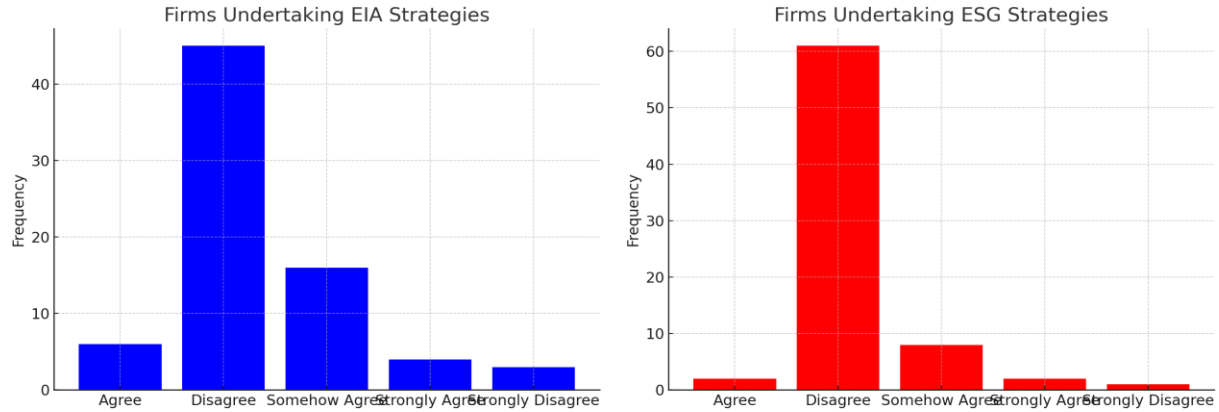


Figure 3: Bar charts showing frequency distributions for firms' undertaking of EIA strategies (left) and ESG strategies (right). The dominance of "Disagree" responses across both variables indicates a fundamental failure of sustainability framework implementation. Source: Author's fieldwork (2024).

Infrastructure and Livelihood Interventions

Mining firms are legally and ethically expected to provide compensation and intervention for communities whose lands and livelihoods are affected by operations. Table 3 shows that 61.6% of respondents rated mining firms' infrastructure interventions at the lowest level, 1 out of 5, with only 9.6% rating them at the highest level.

Table 3: Firms' Infrastructure Interventions (n=73)

Rating (1=Very Low, 5=Very High)	Frequency	Percent (%)	Cumulative (%)
1 (Very Low)	45	61.64	61.64
2	6	8.22	69.86
3	8	10.96	80.82
4	7	9.59	90.41
5 (Very High)	7	9.59	100.00
Total	73	100.00	—

Livelihood interventions were rated even lower, with 64% of respondents assigning the lowest score. The qualitative data reveal the reactive character of these interventions, as Interviewee 4 described, firms provide support '*based on their request*,' responding to community demands rather than proactively delivering pre-committed sustainability obligations. This reactive posture is precisely the characteristic that distinguishes CSR from ESG, CSR is demanded, ESG is committed, reported, and enforced.

Stakeholder Engagement

Existence and Quality of Engagement Processes

Table 4 presents community perceptions of the stakeholder engagement frameworks employed by mining firms. Most strikingly, 43% of respondents reported that firms apply no stakeholder engagement strategy at all. Of those perceiving some engagement, the most common modality was dialogue alone (35.1%), with only 5.4% reporting engagement across all four levels, namely, dialogue, consultation, informing, and participation.

Table 4: Stakeholder Engagement Frameworks Used by Mining Firms (n=74)

Engagement Strategy Reported	Frequency	Percent (%)	Cumulative (%)
Dialogue only	26	35.14	35.14
Dialogue, Consultation, Informing, Participation	4	5.41	40.54
Dialogue, Informing	6	8.11	48.65
Informing only	6	8.11	56.76
Does Not Apply (No Engagement)	32	43.24	100.00
Total	74	100.00	—

These findings directly contradict mining firms' own accounts of their engagement practices. Interviewee 3, a firm representative, described a model of daily pre-operational engagement:

'Some of the community people are probably already farming on it. They have their farms on it, so although it's within your concession, anytime you want to go to that part of the concession to work, you need to have a serious engagement with them, settle on compensation for them to be satisfied before you can even clear their voices. You understand what I'm saying? So day-to-day, we engage them. To make sure that any part of the concession that you want to take which falls within their farming activity, proper engagement is done.'

Interviewee 3 (Mining Firm Representative)

Interviewee 7 similarly described a dedicated community relations function; '*We have a community relations officer… who goes to the community every time to meet chiefs, religious leaders and everyone, even males and females separately. We do this to make sure everyone can put across his/her concern without challenge*.' The gap between these firm-level narratives and the community's experience, 43% reporting no engagement at all, reflects precisely the disconnect between what mining firms report in their sustainability disclosures and the realities expressed by community members, as documented by Hilson (2012) and Ansu-Mensah et al. (2021).

NVivo exploratory analysis of stakeholder engagement responses identified the following dominant keywords, such as, every, annually, month, community, government, meeting, issues, and ministry. The less-frequent terms are equally revealing, words such as, participation, consulting, reporting, natural, and chiefs were notably absent from dominant themes. This word-frequency pattern confirms that firms and regulatory bodies acknowledge the occurrence of periodic meetings but do not demonstrate evidence of deeper participatory consultation or natural resource-specific engagement with community leaders, the substantive engagement that would characterise a genuine stakeholder partnership.

Figure 3 presents the frequency distribution of stakeholder engagement strategies alongside community- reported concerns, providing a consolidated visual summary of these findings.

Figure 3: Stakeholder Engagement Frameworks and Key Community Concerns

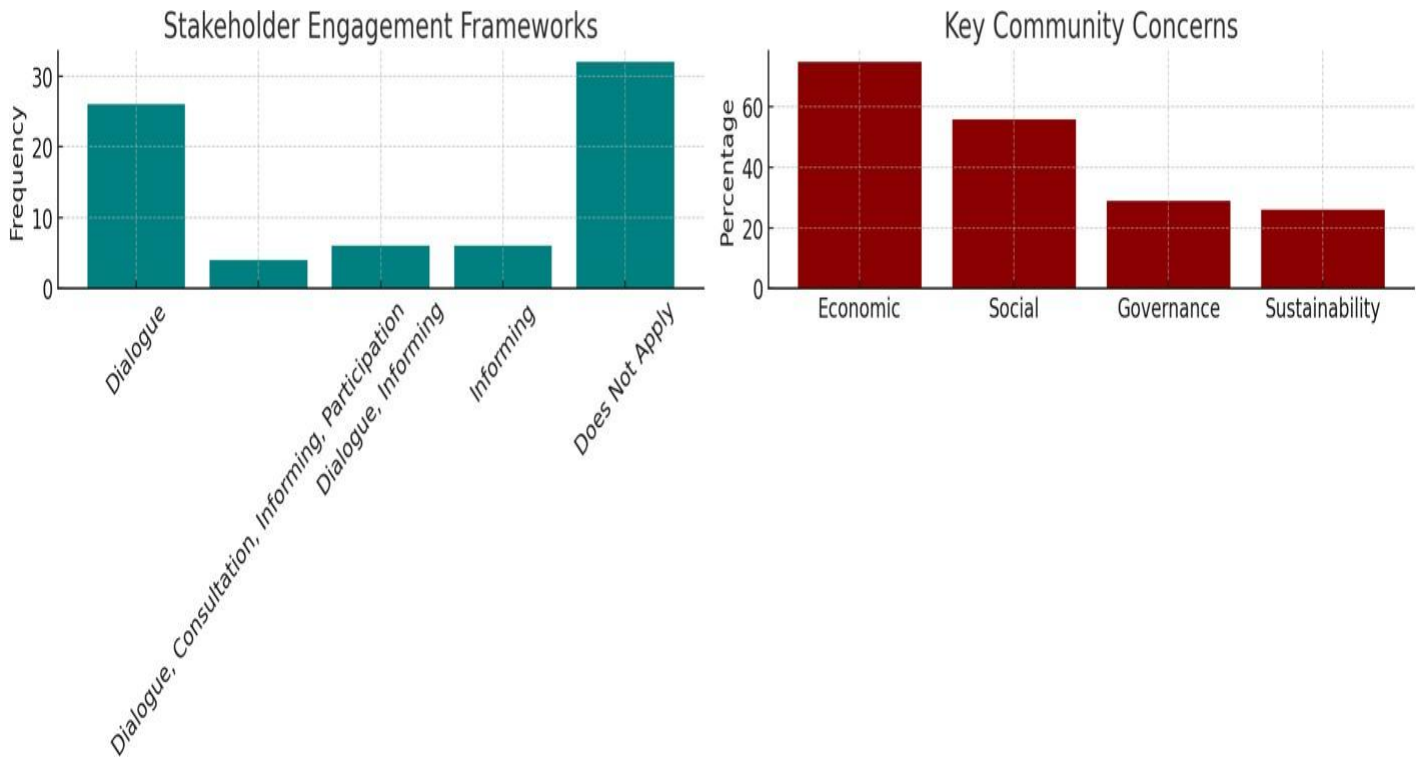


Figure 4: Frequency distributions of stakeholder engagement frameworks reported by community respondents (left) and key community concerns by category (right). Source: Author's fieldwork (2024).

Structural Deficiencies in Engagement: Inclusivity, Frequency, and Location

Applying Freeman's (1984) stakeholder theory to these findings reveals three structural deficiencies in how mining firms currently approach stakeholder engagement. First, firms fail to develop relationships with all constituent groups affected by their activities, the stakeholder landscape is dominated by powerful figures, namely, chiefs, regulatory officials, and industry representatives, while the majority of community members, particularly the youth and women, are systematically excluded. As the research documents, '*majority of mining community members, largely the youth, feel they are unrepresented in any form of stakeholder engagement*.'

Second, the engagement process is structurally inconsistent and irregular. Some firms hold meetings monthly, others annually or biannually. This variation without a standardised timetable undermines credibility and predictability. A clear, binding schedule, publicly communicated and held to, is a prerequisite for effective engagement.

Third, the location of engagement matters. Community members reported being invited to the offices of mining firms rather than engaged in accessible community spaces, creating a power asymmetry that discourages open, critical participation. The best practice described by Interviewee 7, a community relations officer who visits communities and meets with different demographic groups separately, represents an exception rather than a sector norm.

Firms' Responsiveness to Community Concerns

Table 5 shows that 71.6% of respondents described mining firms as either 'Irresponsive' or 'Very Unresponsive,' while only 4.1% rated them as 'Responsive.'

Table 5: Firms' Responsiveness to Community Concerns (n=74)

Responsiveness Level	Frequency	Percent (%)	Cumulative (%)
Very Unresponsive	27	36.49	36.49
Irresponsive	26	35.14	71.62
Somehow Responsive	18	24.32	95.95
Responsive	3	4.05	100.00
Total	74	100.00	—

NVivo word-frequency analysis of interview responses on firm responsiveness identified the following dominant terms, such as, conflict, triggers, support, compensation, chiefs, concerns, services, companies, and mining. This cluster reveals that firm responsiveness is primarily conceptualised, by both firms and regulatory bodies, as conflict management and selective appeasement of powerful stakeholders, rather than as systemic, proactive, and inclusive engagement with the full spectrum of community sustainability concerns.

A particularly damaging practice contributing to this pattern is the allocation of sections of mining concessions to illegal artisanal miners. As documented in the qualitative data, proceeds from these sub-let operations return to registered firms, while the environmental and social damage, deforestation, water contamination, loss of cultural heritage sites, accrues to communities. This practice 'keep*s communities subdued*,' through selective compensation to community leaders, negating the structural need for ESG compliance. The NVivo responsiveness analysis identified keywords such as restoration, reclamation, environment, and natural resource as secondary themes, suggesting firms themselves acknowledge environmental obligations but

express '*limitations in undertaking natural resource reclamation strategies*' that prevent them from meeting expectations.

Key Community Concerns

Community concerns were categorised across four domains. Economic concerns ranked highest, with 75% of respondents citing them as a primary issue, reflecting the immediate, tangible impacts of mining on livelihoods, loss of farmland, inadequate employment, and insufficient compensation. Social concerns were significant for 56% of respondents, encompassing disruptions to community cohesion, health impacts from pollution, and water contamination. Governance concerns were raised by 29%, and sustainability concerns, though conceptually important, were the lowest priority at 26%, likely reflecting that communities experience sustainability failures primarily through their economic and social consequences rather than as abstract governance concepts.

Critically, 76% of respondents agreed or strongly agreed that properly conducted stakeholder engagement has the potential to improve the address of community concerns (Table 6). This strong community endorsement of effective engagement, even among populations that have experienced chronic disengagement, demonstrates that the social and political conditions for reform exist. What is required is not community receptiveness, but firm and regulatory commitment to making engagement binding, inclusive, and accountable.

Table 6: Stakeholder Engagement Can Improve Address of Community Concerns (n=74)

Response	Frequency	Percent (%)	Cumulative (%)
Strongly Agree	27	36.49	36.49
Agree	29	39.19	75.68
Somehow Agree	11	14.86	90.54
Disagree	4	5.41	95.95
Strongly Disagree	3	4.05	100.00
Total	74	100.00	—

Regulatory Oversight and Policy Gaps

The qualitative data reveal important limitations in Ghana's regulatory oversight architecture. While the EPA and Minerals Commission are the primary custodians of sustainable mining practice, their monitoring and supervisory functions are under-resourced and inconsistently applied. Interviewee 3 explicitly called for greater government intervention: '*The government should come in more. It should be more like a law... they should also do consistent monitoring, effective monitoring.*' This appeal from within the mining industry for stronger regulatory enforcement underscores the systemic nature of the problem, as in, firms are aware of governance deficits but rely on weak oversight to avoid accountability.

A further finding from the qualitative analysis is that only the Ministry of Lands and Natural Resources and one mining firm called Prestige Orientals, provided explicit connections between local regulatory frameworks and global ESG and sustainability reporting standards. The remaining regulatory bodies and firms demonstrated limited awareness of how to operationalise the alignment between Ghana's domestic frameworks and international ESG benchmarks. This knowledge gap represents a structural barrier to effective reform and calls for capacity-building alongside regulatory strengthening.

The Akoben Rating System's limitation as a partial sustainability tool, addressing environmental compliance but not social or governance performance, further underlines the need for a more comprehensive, three-pillar sustainability framework to replace or augment the current environmental-only approach.

The Akoben Rating System: Regulatory Architecture and Limitations

Ghana's Akoben Rating System, developed by the Environmental Protection Agency (EPA), represents the country's most structured attempt to create a performance-based environmental disclosure mechanism for the mining sector. Akoben functions as the third pillar of Ghana's environmental regulatory architecture, complementing the EIA framework and legal enforcement mechanisms. It assigns five colour-coded ratings to mining firms, Gold (Excellent), Green (Very Good), Blue (Good), Orange (Unsatisfactory), and Red (Poor), based on assessed environmental compliance criteria, and uses public disclosure as a tool to create reputational incentives for improved compliance.

The regulatory architecture within which Akoben operates is illustrated in Figure 4 below. The three-pillar system, Environmental Impact Assessment, Legal Enforcement and Fines, and Environmental Rating and Public Disclosure, was designed to be mutually reinforcing, with Akoben providing the transparency and public accountability dimension that statutory enforcement alone cannot achieve.

The Akoben colour-coding system, illustrated in Figure 6b below, operationalises these pillars into a five-tier performance rating. Each colour corresponds to a set of criteria and indicators, Gold requires firms to meet all environmental standards and fulfil corporate social responsibilities, Green requires responsiveness to public complaints in addition to environmental compliance, Blue requires adequate compliance with environmental standards, Orange indicates exceedance of regulatory standards for conventional pollutants; and Red indicates failure to fulfil the requirements of L.I. 1652 and the creation of risks from toxic and hazardous waste mismanagement.

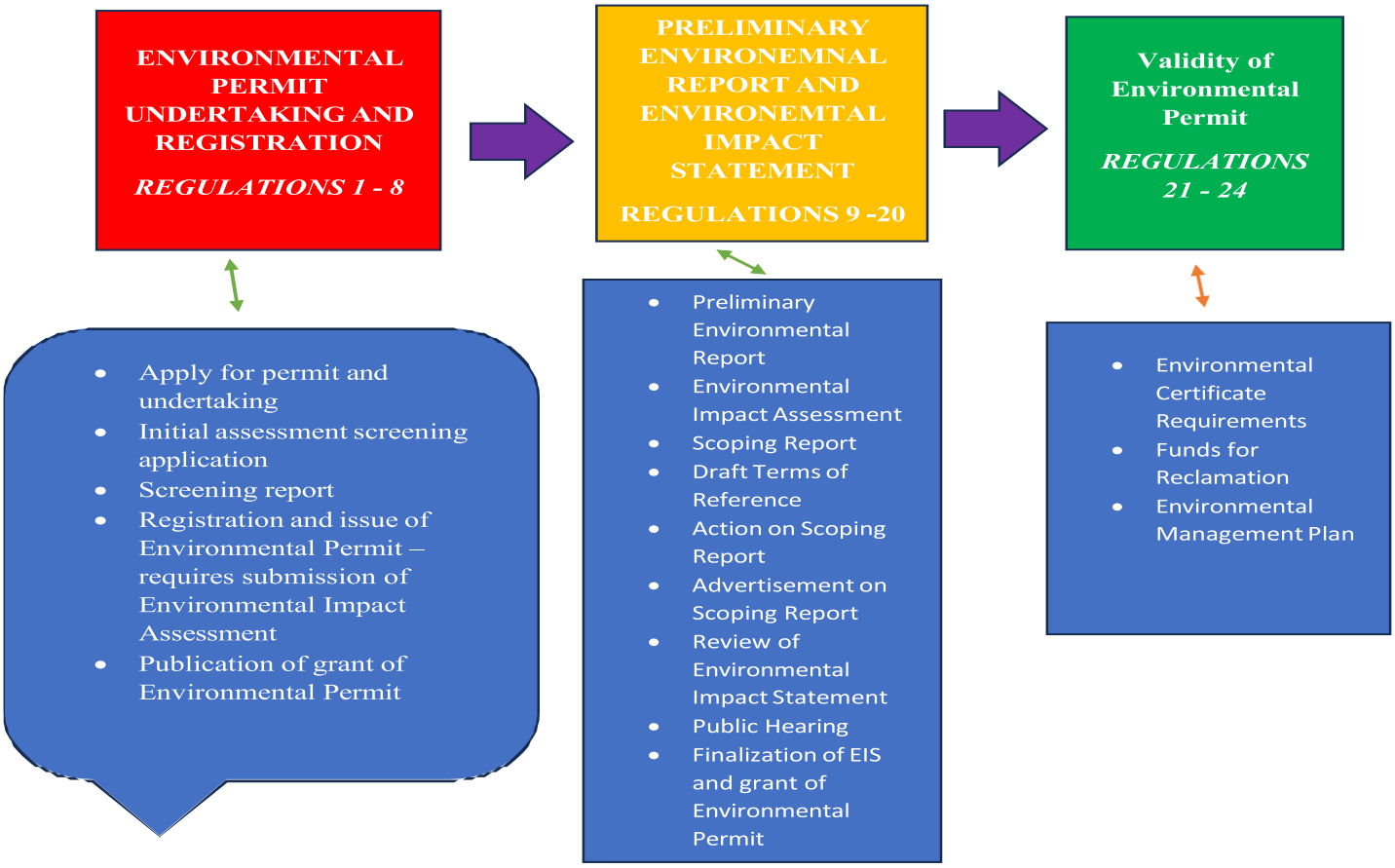
Figure 4: Akoben Rating System - Colour Codes, Performance Levels, and Development Timeline

Rating/Color	Level of Performance
Gold	Excellent
Green	Very Good
Blue	Good
Orange	Unsatisfactory
Red	Poor

Source: Author's construct.. Akoben assigns five color-coded ratings (Gold = Excellent; Green = Very Good; Blue = Good; Orange = Unsatisfactory; Red = Poor) to mining firms based on environmental compliance criteria. The development timeline (2000–2010) reflects the EPA's phased implementation from disclosure releases to a full internationally-supported rating system.

Figure 5 below presents the regulatory roadmap for the Environmental Impact Assessment and licensing process as prescribed by the Environmental Protection Agency. This figure is retained because it provides essential procedural context for understanding why EIA non-compliance, disputed by 61% of survey respondents, represents not merely an administrative oversight but a failure to satisfy a multi-stage, legally mandated process. The roadmap makes clear that EIA requirements precede the issuance of any Environmental Permit, meaning that firms operating without meaningful community-visible EIA processes are either non- compliant with statutory obligations or conducting paper-only compliance that fails to reach affected communities.

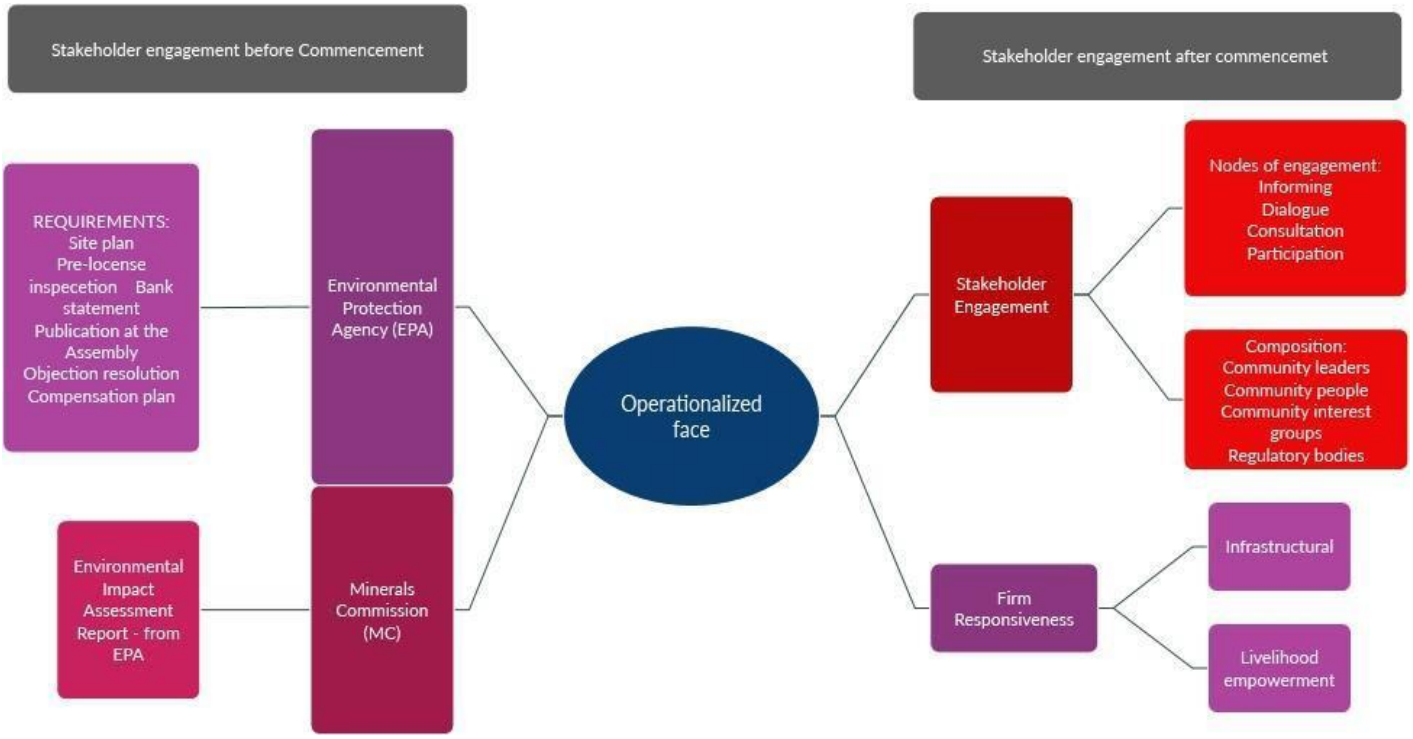
Figure 5: EIA and Licensing Process - Regulatory Roadmap for Environmental Impact Assessment



Source: Author's construct from EPA Environmental Impact Assessment Report (1999)). Notes: The roadmap operates across three sequential regulatory stages. Stage 1, Environmental Permit Undertaking and Registration (Regulations 1-8), covers the initial permit application, screening, and issuance of an Environmental Permit, which requires submission of an Environmental Impact Assessment. Stage 2, Preliminary Environmental Report and Environmental Impact Statement (Regulations 9-20), involves the scoping report, draft terms of reference, public hearing, and finalisation of the Environmental Impact Statement (EIS); this is the stage at which community consultation is statutorily required. Stage 3, Validity of Environmental Permit (Regulations 21-24), governs ongoing obligations including the Environmental Management Plan and reclamation funding. The stark gap between these statutory requirements and the 61% of community respondents who dispute that EIA processes occur reflects either paper-only compliance or a systemic failure to translate regulatory procedure into community-visible engagement.

Figure 6 below presents the mind map of stakeholder engagement and firm responsiveness constructed from the study's fieldwork. It maps the two temporal phases of mining governance, before and after operational commencement, and the relationships between regulatory requirements, engagement modalities, community composition, and firm responsiveness mechanisms. The map gives visual form to the structural argument of this study, that what firms describe as 'engagement' is confined predominantly to the pre-commencement phase of regulatory compliance, while the ongoing, post-commencement engagement necessary to sustain a social license to operate and address community sustainability concerns is largely absent. The nodes on the right side of the map represent the full spectrum of engagement that communities require but rarely receive, including genuine participation and consultation alongside chiefs, community people, community interest groups, and regulatory bodies. The responsiveness dimension reveals that firm responses are channelled almost exclusively through infrastructure projects and livelihood empowerment programmes, reactive, demand-driven interventions consistent with CSR rather than the proactive, structured accountability of ESG frameworks.

Figure 6: Mind Map - Stakeholder Engagement and Firm Responsiveness Framework



Source: Author's construct from fieldwok. Notes: The mind map is divided into two temporal phases. Left panel, Stakeholder Engagement Before Commencement: firms must satisfy the Environmental Protection Agency (EPA) by submitting a site plan, bank statement, pre-licence inspection report, EIA statement, publication of engagement at the District Assembly level, objection resolution documentation, and a compensation plan for affected landowners. Only upon EPA approval is a Mining Operation Permit granted. Firms must then obtain a Mining Licence from the Minerals Commission (MC), which reviews the EIA report independently. Centre node, Operationalised Face: represents the mining operation itself, the point at which both regulatory compliance and community relations become active obligations simultaneously. Right panel, Stakeholder Engagement After Commencement: engagement nodes include Informing, Dialogue, Consultation, and Participation, arranged from lowest to highest level of community involvement. The composition of stakeholders should include community leaders, community people, community interest groups, and regulatory bodies. Firm Responsiveness is expressed through two channels: infrastructural projects (roads, clinics, markets) and livelihood empowerment programmes (employment, compensation, skills training). The critical finding from the study is that post-commencement engagement remains predominantly at the Dialogue level, with Participation, the highest and most inclusive form, absent from firm practice, explaining the 71.6% unresponsiveness rating reported by community members.

RECOMMENDATIONS

Based on the empirical findings, this study proposes the following evidence-based recommendations to enhance stakeholder engagement, corporate accountability, and sustainable mining governance in Ghana's Ashanti Region.

Mandate ESG Reporting and Discontinue the CSR Substitution

The most urgent reform is the transition from voluntary CSR programmes to mandatory, legally enforceable ESG frameworks. The Minerals Commission and EPA should require all licensed mining firms to submit annual ESG reports that are independently audited, publicly disclosed, and benchmarked against recognised international standards such as the Global Reporting Initiative (GRI) or the Equator Principles. Firms that substitute ESG obligations with discretionary CSR initiatives should be subject to licence review and regulatory sanction. The emphasis of policy should be on demanding ESG reports from mining firms, not CSR reports.

Strengthen and Coordinate Regulatory Oversight

Regulatory bodies, including the Minerals Commission, EPA, Forestry Commission, Water Resources Commission, and Lands Commission, must operate in a coordinated, cross-institutional manner rather than in sector-specific silos. A joint sustainability monitoring framework, with shared data, enforcement protocols, and regular unannounced field inspections, would close the implicit loopholes that fragmented regulation currently creates. Only credible firms demonstrably adhering to sustainability requirements should be permitted to continue operations.

Institutionalise Inclusive Stakeholder Engagement

Mining firms should be required to establish dedicated Stakeholder Engagement Units with mandated engagement schedules, transparent stakeholder mapping criteria, and explicit provisions for the participation of women, youth, and other marginalised groups. Engagement must be conducted in accessible community spaces rather than firm offices, and must be documented and reported as part of ESG disclosure. Independent, accessible, and time-bound grievance mechanisms must be established. The social license to operate should be formally recognised as a complement to, not a substitute for, statutory engagement obligations.

Increase and Transparently Administer Community Revenue Allocation

The percentage of mineral royalties allocated to host communities through the Mineral Investment Fund and analogous mechanisms should be increased, as the current 20% allocation under Section 4.1(d) of the Minerals and Mining Act 753 is insufficient given the scale of community disruption. Community Development Funds should support long-term, community-identified priorities, education, healthcare, clean water, and alternative livelihood development, rather than one-off compensation payments. Transparent financial reporting on fund disbursement and utilisation should be mandatory.

Prohibit and Monitor Illegal Sub-letting of Concessions

The practice of registered firms sub-letting portions of their concessions to illegal artisanal miners must be explicitly prohibited in licence conditions and actively monitored through satellite surveillance and ground inspections. Firms found to benefit financially from illegal sub-letting should face licence revocation rather than merely financial penalties, and their sustainability reports should reflect the full environmental and social impact of all activities within their concession boundaries.

Build Regulatory Capacity in ESG Literacy

Given the finding that most regulatory bodies demonstrated limited awareness of how to operationalise alignment between Ghana's domestic frameworks and international ESG benchmarks, a structured capacity-building programme, developed with the Ministry of Lands and Natural Resources, the EPA, and international partners, should be designed to equip regulators, mining firms, and community organisations with the knowledge and tools required to implement, monitor, and report against comprehensive ESG standards.

CONCLUSION

This study set out to evaluate stakeholder engagement and corporate responsiveness in the mining sector of Ghana’s Ashanti Region, drawing on primary data from 74 community survey respondents and seven regulatory interviewees across four major mining communities, namely, Obuasi, Manso Nkwanta, Konongo, and Mpasatia. The findings are consistent, mutually reinforcing, and, given that 76% of communities remain open to and supportive of effective engagement, practically actionable.

Four core empirical findings emerge from the data. First, 61% of respondents disputed that mining firms conduct Environmental Impact Assessments, and 82% disputed the implementation of ESG policies, despite EIAs being a statutory precondition for Environmental Permits under L.I. 1652. Second, 63% of respondents disagreed that structured stakeholder engagement processes exist, and the quality of such engagement as does

occur is characterised by infrequency, exclusion of marginalised groups, power asymmetries, and a stark disconnect between firm-level reporting and community experience. Third, 71% of respondents rated mining firms as unresponsive to community concerns, with infrastructure and livelihood interventions consistently receiving the lowest possible ratings. Fourth, and most structurally significant, mining firms systematically substitute binding ESG frameworks with discretionary CSR programmes that are not legally enforceable, not independently audited, and not aligned with international sustainability standards.

The conceptual contribution of this study lies in its operational elaboration of the CSR-ESG distinction within the Ghanaian mining context. This distinction is not semantic, it is the governing difference between accountability and aspiration. When firms report CSR achievements in place of ESG compliance, they remove themselves from the accountability architecture necessary for meaningful and durable community benefit. Ghana's mining communities do not need more philanthropy, they need enforceable rights, transparent governance, and inclusive decision-making processes. This study also reaffirms the relevance of Freeman's (1984) stakeholder theory to mining governance, which are, inclusive, structured, and regular engagement with all constituent groups, not merely powerful figures, is both theoretically required and empirically demonstrated to be capable of improving sustainability outcomes. The 76% of community members who believe that effective stakeholder engagement can improve the address of their concerns represent a reservoir of social goodwill that sound governance can activate.

The present findings must, however, be read in light of the study's methodological boundaries, and these boundaries point directly toward three priority directions for future research. First, the aggregate nature of the community survey data obscures the distinct experiences of women, youth, farmers, and displaced landowners, groups whose perspectives are rendered analytically invisible when absorbed into composite responses. Future research employing disaggregated, subgroup-specific sampling through targeted mixed-methods designs would substantially enrich the evidence base for gender-sensitive and inclusive mining governance policy (Henriques & Brilha, 2017; Tuokuu et al., 2019). Second, the cross-sectional design of this study cannot resolve the causal question of whether governance reforms produce measurable improvements in community outcomes over time. Longitudinal research would enable scholars to assess whether any transition from voluntary CSR to mandatory ESG reporting translates into durable, community-level benefit, a question of increasing urgency given Ghana's evolving regulatory landscape (Vitoh & Serbeh-Boateng, 2024; Pouresmaieli et al., 2024). Third, the study's focus on the Ashanti Region raises the question of geographic generalisability. Comparative studies encompassing Ghana's Western Region and Upper West Region would test whether the structural disconnect between regulatory frameworks and community experience identified here is a regional pattern or a national-level governance failure (Hilson et al., 2019; Essah & Andrews, 2016).

Looking ahead, sustainable mining in Ghana's Ashanti Region requires three decisive governance shifts: from voluntary CSR to mandatory ESG; from fragmented, single-regulator oversight to coordinated cross-institutional enforcement; and from tokenistic, elite-dominated consultation to genuinely inclusive and legally underpinned community engagement that gives voice to women, youth, and other marginalised groups. These shifts are achievable. The international literature and comparative practice from Chile, Peru, Papua New Guinea, and Europe demonstrate what is possible. What is required is the political and regulatory will to make them mandatory, transparent, and enforced.

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