A RESEARCH THESIS SUBMITTED TO THE WITS BUSINESS SCHOOL

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN BUSINESS ADMINISTRATION

University of the Witwatersrand, Johannesburg

Faculty of Commerce, Law and Management

Wits Business School

Presented by Kabelo Madubane (1753918)

Under the supervision of Dr Jacques Totowa

DETERMINING THE CONSEQUENCE OF SOCIO-ECONOMIC SUSTAINABLE DEVELOPMENT INITIATIVES ON GOLD MINING ORGANIZATIONS IN AFRICA

STATEMENT OF PURPOSE

Determining the consequences of socio-economic sustainable development initiatives on gold mining organizations in Africa

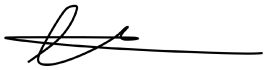
This research aims to determine how the management of a gold mining company identifies and categorizes stakeholders for developing sustainable socio-economic or CSR initiatives to assess whether such initiatives are successful and sustainable in ensuring social license to operate for gold mining operations.

ABSTRACT

Gold mining companies continue to pour billions of dollars into sustainable social and economic initiatives or CSR programs to attain a social license to operate. However, mining operations in West Africa continue to experience business interruption from local communities and invasion of active mining areas by small-scale artisanal miners. Due to limited knowledge of guiding principles for implementing the social license to operate, (Wilburn K. M., 2011, p. 11) suggests that by using a "…process based on alignment of the norms of the company and the norms and micro social contracts of the vested stakeholder groups, social licenses to operate can be negotiated..." This research aims to determine how a gold mining company's management identifies and categorizes stakeholders for developing sustainable socio-economic or CSR initiatives to assess whether such initiatives are successful and sustainable in ensuring social license to operate for gold mining operations. The study utilized a mixed-methods research design. The participants include the senior management of the West African business units of a leading global gold producer and a selection of the company's stakeholders. The results show that the process used by the management of gold mining organization for identifying and categorizing stakeholders should be reviewed for consistency with the principles of Stakeholder Theory and proposes that the Mining Value Chain be utilized to determine the impact of Artisanal Small Scales Miners (ASM) as primary stakeholders on the organization as such guide how sustainable socio-economic initiatives should be derived to ensure sustained social license to operate.

DECLARATION

I, Kabelo Madubane, declare that the research work reported in this dissertation is my own, except where otherwise indicated and acknowledged, submitted for the Master of Business of Business Administration degree at the University of the Witwatersrand, Johannesburg. This thesis has not, either in whole or in part, been submitted for a degree or diploma to any other university.



……..

Kabelo Madubane

Signed at Wits Business School…….

On the 05 Day of May 2025

ACKNOWLEDGMENTS

I want to thank the following people for their involvement and assistance in preparing this research.

My wife and kids, for their time, patience, and support during my studies.

My supervisor, Dr Jacques Totowa, for his patience and guidance throughout the writing of this research paper.

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 Introduction

Despite spending billions on Corporate Social Responsibility (CSR) and Sustainable Socio-economic Development (SED) initiatives, host mining communities in Africa continue to be underdeveloped. Both host governments and communities seek more from mining companies. In the face of risks from digitization and 4IR on these communities, African governments are also increasing pressure on mining firms to share more wealth.

Tomislav (2018), in his discussion about the evolution of the concept of sustainable development from its inception to current challenges, notes that sustainable development has evolved through different stages. Various organizations and institutions have been involved in the historical development of the concept and currently focus on implementing its principles and objectives. Over time, sustainable development has been critiqued and interpreted in various ways, gaining acceptance in different fields of human endeavor. Its definition has become one of the most frequently quoted in literature. While the concept has adapted to the demands of a sophisticated global setting, its fundamental principles, objectives, and challenges in execution have remained mainly consistent (Tomislav, 2018).

Commitment to Sustainable Development Goals (SDGs) fosters stronger relationships between governments, mining companies, and communities and greater access to financial resources. Failure to engage with the SDGs poses risks to mining operations in the short and long term, potentially hindering the achievement of these goals (Ranängen, 2017). The mining sector will play a role in reaching the SDGs by 2030, however, Mvile (2018) argues that artisanal and small-scale mining (ASM) will not significantly contribute to the SDGs due to factors such as a lack of investment and insufficient political will, additionally, ASM is seen as a consequence of limited socio-economic development rather than an endeavor capable of significantly improving socio-economic conditions around mining jurisdictions. Consequently, it is considered unattractive for international, longer-term sustainable development initiatives. These overarching issues extend to the national level, where the industry's poor reputation, regulatory difficulties, and funding preference for large-scale extractive industries make it easier to overlook or avoid ASM (Clifford, 2022).

However, Zvarivadza (2018) stresses acknowledging and legitimizing artisanal and small-scale mining (ASM) as a sustainable livelihood. Developing peaceful and comprehensive strategies to formalize ASM is essential, as it is a crucial source of income for impoverished individuals and those lacking professional skills, a reality that governments must acknowledge (Zvarivadza, 2018).

For example, in January 2016, artisanal miners took control of the complex underground channel network at the AngloGold Ashanti Obuasi mine. This ASM takeover led to the death of one of AngloGold's senior managers, prompting military intervention, which resulted in clashes between the army and ASM. During the extraction process, 175 ASM died (Reuters Staff, 2016). The underground water and electrical systems were also damaged during the ASM's takeover, affecting the mining corporation financially and investor confidence.

Following the incursion, AngloGold Ashanti ceded 6% of their land concession to the Ghanaian government. To regulate ASM activities, a piece of gold-rich property was later leased to artisanal miners (Reuters Staff, 2016). However, there was a noticeable decrease in economic activity in the Mine's surrounding communities while it was closed for preparation. Reduced employee income tax and gold production from the Obuasi goldmine significantly impacted socio-economic activity in Obuasi and across the country (Reuters Staff, 2016). the latter is just one of many instances in the African gold mining industry where the emergence of a secondary stakeholder, such as ASM miners, has the potential to disrupt production activities and, as a result, have a negative economic impact on the mining communities. Therefore, this raises questions about the sustainability of mining companies' commitment to socio-economic development.

Foreign direct investment (FDI) in emerging mining markets has been attributed to increased inequality and the marginalization of communities that traditionally depend on Artisanal Small-Scale Mining (ASM), presenting a unique challenge to sustainable development (Yakovleva & Vazquez-Brust, 2018). The study further suggests that ASM operations can be formal, with legal authorization from the state, or informal, operating without licenses or regulations, often called illegal mining. The latter is more prevalent in developing countries and poverty-stricken communities, where basic methods are used to extract gold, precious minerals, and coal (Schwartz, Lee, & Darra, 2021). The artisanal and

small-scale mining (ASM) industry employs some 15 million individuals in 80 countries globally, supporting the livelihood of approximately 100 million people (Yakovleva & Vazquez-Brust, 2018).

1.2 Problem statement

D'Amato, Henderson, and Florence (2009) argue that the literature on multinational mining companies, Corporate Social Responsibility (CSR), and Sustainable Economic Development (SED) programs does not address the competition between these mining companies and Artisanal Small-Scale Miners (ASM), considered peripheral stakeholders of little significance. Furthermore, Wilburn (2011) acknowledges the lack of definitions and processes to aid organizations in incorporating sustainable development into strategic decision-making. While Wilburn proposes a method using normative Stakeholder Theory for identifying and categorizing stakeholders, this process does not recognize secondary stakeholders as part of the “community” or consider their role and impact on developing the social license to operate strategies through sustainable development initiatives. This gap is particularly significant within the West African gold mining industry.

1.3 Research objectives

In exploring the potential resolutions to the presented problem statement, the research seeks to:

- Investigate the implications of misalignment between operational objectives and stakeholder needs on CSR/SED efficacy.
- Examine the definitions and classifications of primary and secondary stakeholders within the mining sector.
- Analyze the role of Artisanal and Small-scale Mining (ASM) operators as stakeholders and their influence on mining operations.
- Propose strategies to enhance alignment between mining companies' objectives and stakeholder needs to improve CSR/SED outcomes.

1.4 Research Question

The stated problem statement and research objectives land the following research questions as a framework and guidance to the present study:

- How do mining companies identify and categorize stakeholders in their operations?
- What are the perceived impacts of stakeholders on mining businesses, and how are these impacts assessed?
- How do mining companies define and classify primary and secondary stakeholders?
- What is the role of Artisanal and Small-scale Mining (ASM) operators in the mining value chain, and how do they influence operations?
- How do inconsistencies in stakeholder categorization affect the efficacy of CSR/ SED initiatives?

1.5 Rationale of the study

International business study frequently concentrates on multinational mining companies' interactions with host governments on asset control and property rights protection in host countries, utilizing "Political risk Theory and Political Strategy" (Husted, 2015). However, this approach overlooks the potential effects on sustainable development, particularly poverty and inequality. Hence, it is necessary to expand the understanding beyond the existing international business and sustainable development literature to identify suitable conceptual tools for examining sustainable and inclusive strategies for multinational mining companies operating in intricate mining jurisdictions (Yakovleva & Vazquez-Brust, 2018).

Non-confrontational and proactive strategies can foster inclusion and self-assessment among ASM miners, motivating them to contribute to the nation's well-being. Understanding the strengths and weaknesses of illegal mining or ASM activities and the hurdles or complexities inherent to sustainable development is key to developing practical, all-inclusive, and wide-ranging solutions that promote community development and reduce poverty (D'Amato, Henderson, & Florence, 2009). To implement sustainable and ethical mining methods that consider all stakeholders, it is crucial to comprehend how secondary stakeholders affect gold mining firms. This study aims to contribute to the body of knowledge

regarding stakeholder management, CSR, and sustainable mining businesses, offering insightful information for gold mining firms and governments.

1.6 Delimitations of the study

A qualitative study employing thematic analysis was conducted with the Guinea and Ghana business units of one of the world's Top 5 largest gold-producing organizations. According to O'Leary, Abratta, and Benn (2016), most stakeholder research has been conducted in developed economies. West Africa, now considered a primary global emerging gold-producing jurisdiction, hosts major companies, including Barrick, Newmont, Kinross, Gold Fields, and AngloGold Ashanti, which have established operations and continue investing in the region. This study seeks to address a gap in the literature concerning stakeholders in the West African Gold mining Industry.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Mineral products are vital for supplying fuels and raw materials used in industrial and daily activities. However, the effects of mining on other areas of life must be considered. Although mining's contributions help the entire world, the negative repercussions on the environment and society are borne mainly by local populations (Que, 2018). The conventional economic business model in mining prioritizes earning profits for shareholders, which tends to focus on short-term goals. Natural, human, or financial resources are utilized to produce goods or provide services to generate profit for shareholders. Historically, there has been less consideration for the sustainability of this model. Now, the globe acknowledges the limited availability of numerous resources, and the societal problems associated with unchecked expansion, especially in local mining communities (Conway, E., 2018). Local community involvement can be used as a strategy to mitigate risks associated with community-related issues, which can support the fulfillment of sustainable development in mining areas (Wireko-Gyebi, 2022).

2.2 Empirical literature review

2.2.1 Corporate Social Responsibility and Stakeholder Theory

Corporate Social Responsibility (CSR), Socio-Economic Development (SED) initiatives, and Stakeholder Theory are interrelated concepts within company ethics and management. Corporate Social Responsibility (CSR) denotes a company's dedication to ethical conduct and sustainable development. In contrast, Stakeholder Theory underscores the necessity of acknowledging the interests of all entities impacted by a company's actions. In defining CSR, Okan, Peker, and Örs (2015) point out that CSR is a self-regulating corporate framework that guarantees organizations are socially accountable to stakeholders, such as employees, consumers, suppliers, local communities, and the environment. It goes beyond legal conformity, emphasizing voluntary efforts to enhance social and environmental welfare.

The notion of Corporate Social Responsibility (CSR) has been articulated in various ways since its emergence in modern literature during the 1950s, subsequently becoming associated with different themes such as corporate social performance, stakeholder theory,

and business ethics theory, particularly following the 1980s (Okan, Peker, & Örs, 2015). Okan et al. (2015) further point out that Carroll's (1979) definition of CSR has been widely accepted and utilized. Carroll (1979, p. 500) defines CSR as "…the economic, legal, ethical, and discretionary expectations that society has of organizations at a specific point in time...". Okan et al. (2015) seem to suggest that Carroll's (1979) framework has delineated the dimensions of Corporate Social Responsibility (CSR) in the structure of a pyramid. The economic obligations at the base of the pyramid involve generating profit through the production and sale of products required by society. Legal and ethical obligations supersede economic responsibilities. Legal responsibilities pertain to compliance with statutory obligations, whereas ethical responsibilities involve adhering to standards, norms, and expectations that transcend legislation, taking public relations into account. At the pyramid's apex are philanthropic obligations, encompassing the firms' humanitarian endeavors and contributions to society, solidifying their role as responsible corporate citizens. In this approach, economic and legal responsibilities are defined as mandatory. (Okan et al., 2015).

Figure 2. 1 *Carroll's pyramid of CSR: taking another look (Carroll A. B., 2016)*

According to Carroll A. B. (2016), the four-part definitional framework for CSR elucidates and defines the nature of companies' obligations to the society in which they operate. The

first research study using the four categories demonstrated that both the construct's content validity and the instrument measuring it were valid (Aupperle et al., 1985). Further studies revealed that the relative values or weights of each component, as implicitly represented by Carroll, closely aligned with the importance assigned by the 241 surveyed executives to the four components: economic = 3.5; legal = 2.54; ethical = 2.22; and discretionary/philanthropic = 1.30. Subsequent studies have corroborated these findings (Carroll A. B., 2016).

Businesses have an economic obligation to the society that fosters and sustains them. Economic expectations are a form of social responsibility because society expects and requires businesses to be profitable, ensuring they attract investment and maintain resources to survive. Society first saw businesses as institutions designed to create and sell products and services. Society permits enterprises to profit as an incentive (Carroll A. B., 2016). When businesses offer value, they benefit all stakeholders and make money. Profits satisfy Investors/owners, while reinvested profits drive corporate development.

CEOs, managers, and entrepreneurs agree that profitability and ROI drive company success. Most economic theories acknowledge the significance of company profits to society (Carroll A. B., 2016). When considering their economic responsibilities, businesses focus on revenues, cost-effectiveness, investments, marketing, strategies, operations, and other professional concepts to improve their long-term financial performance. Economic performance and sustainability are crucial in today's hypercompetitive global corporate world (Carroll A. B., 2016). Firms that fail financially cannot fulfill their broader responsibilities and often go out of business. Therefore, economic responsibility represents a foundational requirement for success in a competitive business environment (Carroll A. B., 2016).

2.2.2 Stakeholder Theory

Initially articulated by Edward Freeman in 1984, Stakeholder Theory posits that enterprises ought to generate value not just for shareholders but for all stakeholders—individuals or groups that can influence or are influenced by the organization. These stakeholders encompass shareholders, employees, customers, suppliers, governments, local

communities, and the environment (Freeman, 1984). Okan et al. (2015) suggest that the term “stakeholder” refers to groups that influence or are influenced by the attainment of corporate objectives. This definition prioritizes the interests of stakeholders. The resources and contributions from stakeholder groups, each possessing distinct rights, aims, expectations, and obligations within a complex relational framework, are crucial for the performance and survival of firms (Okan et al., 2015).

Stakeholder theories assert that managers' obligations extend beyond maximizing shareholder value, as agency theory indicates, to encompass the welfare of other stakeholders impacted by company choices (Okan et al., 2015). Freeman (1984) defines stakeholder management as a win-win partnership in which managers align their objectives with stakeholders' wants and expectations, arguing that there is a natural synergy between stakeholders and CSR. In the context of this relationship, CSR in mining corporations plays a pivotal role in reconciling the divergent interests of society, the duty of environmental stewardship, and profit objectives; subsequently, they must align their relations, attitudes, and strategies with this equilibrium (Okan et al., 2015).

The corporate planning literature traditionally assigned a restricted role to stakeholders in formulating company strategy. Freeman and McVea (2005) note that Ansoff's seminal work, *Corporate Strategy* (1965), emphasized the significance of recognizing key stakeholders. Nonetheless, stakeholders were seen as obstacles to the firm's principal objectives, with Ansoff rejecting the value of this idea. A significant difference exists between the socially responsible investment (SRI) methodology and corporate planning. Corporate planning recognizes that stakeholders might set limitations on the company's activities. Therefore, management must understand the needs of stakeholders to define operational objectives. Within these parameters, management should formulate plans that optimize advantages for a singular stakeholder group, the shareholders (Freeman & McVea, 2005).

Stakeholders in the gold mining industry are a diverse spectrum of entities, including shareholders, employees, suppliers, government agencies, local communities, Indigenous peoples, environmental organizations, and more. Understanding these stakeholders' interests and influence requires first identifying and classifying them (Mzembe, 2016). Harmoni (2013) suggests that the behaviors of various groups also affect the business’s

interests. Thus, enterprises should integrate stakeholder expectations into the planning and policy processes.

2.2.3 Secondary versus Primary Stakeholders

Primary stakeholders, such as employees and stockholders, are actively involved with the organization, while secondary stakeholders are indirectly impacted and include groups like local communities and environmental organizations (Charan, 2018). According to Adoko Obicci (2022), the primary stakeholders possess a formal, official, and contractual affiliation with the organization. In contrast, the secondary stakeholders do not have a direct connection to the organization, but they may still exert influence on or be influenced by the organization. There is a significant interdependence between the organization and its major stakeholders. Secondary stakeholders do not participate in transactions with the company, nor are they vital for its continued existence, despite their potential to cause substantial disruptions to the company's operations (Adoko Obicci, 2022).

2.2.4 Impact and Influence of Secondary Stakeholders

Traditional gold mining and extraction activities in the West African gold mining jurisdiction began toward the end of the 1880s, long before multinational mining companies. However, very little is known about these traditional miners and their needs, which likely contributes to the lack of understanding and the resulting conflicts between authorities, mining companies, and ASM needs (Gavin Hilson, 2006). With limited alternative employment opportunities for village dwellers in host mining communities, most of the current ASM are descendants of traditional miners (Gavin Hilson, 2006), continuing a long-standing practice in host mining communities.

In the context of gold mining, secondary stakeholder theory refers to the analysis of stakeholders such as artisanal small-scale miners (ASM) or illegal miners who are not directly involved in the day-to-day activities of gold mining firms but who can influence or be influenced by these operations (O'Leary et al., 2016). ASM denotes mining operations conducted by individuals or small collectives utilizing limited technology and capital investment. These miners, albeit operating informally, harvest a significant share of the world's minerals, especially in developing nations. According to B2Gold (2023), artisanal and small-scale mining (ASM) is defined as formal or informal mining characterized by low capital intensity, high labor intensity, and relatively simple exploration, extraction, and

processing methods. As B2Gold (2023) reported, an estimated 20 to 50 million individuals are engaged in artisanal and small-scale gold mining globally, predominantly in developing regions. This sector represents 90% of the workforce in gold mining and contributes between 12% and 20% of annual gold production (B2Gold, 2023).

The presence of ASM near B2Gold mines and exploration permits in Mali and the Philippines constitutes a significant concern. These risks include conflicts regarding land access for artisanal and small-scale mining (ASM), confrontations with security forces during ASM-related intrusions, and heightened crime and corruption within local communities. Furthermore, the displacement of artisanal miners can lead to the loss of livelihoods, and the involvement of child or forced labor is a concern in ASM. Potential liabilities related to labor, environmental degradation, and health and safety issues can also arise(B2Gold, 2023).

Antwi-Boaten (2020) states that ASM mining accounts for substantial adverse social, economic, environmental, and political impacts. By intruding on mining concessions, illegal mining can interfere with legitimate mining activities, resulting in conflicts and disagreements over resource access. This fundamental problem presents various risks and issues to legal mining operations, the environment, nearby populations, governments, and the mining industry, particularly due to the encroachment of illegal mining activities into legitimate gold mines. Individuals or groups often engage in mining operations without the required authorizations or in defiance of applicable mining laws.

Idrobo (2014) points out that conflicts and disputes over resource access can result from illegal mining encroachment on mining concessions, impeding legitimate mining operations. The illicit mining and sale of gold, which ought to be subject to taxes and royalties, result in substantial revenue losses for governments and legitimate mining corporations. Ethical and socially conscious investors may decide to sell their holdings in mining businesses that do not adhere to their environmental and social standards, which could negatively impact the business's viability (Suglo, 2021).

Considering ASM as secondary stakeholders, who exert indirect influence on the value chain, facilitates a more comprehensive approach. (Freeman’s (1984) stakeholder theory posits that organizations should consider all entities that influence or are influenced by their

operations. In this context, artisanal small-scale and illegal miners are pivotal agents affecting mining areas' social, environmental, and economic aspects. Illegal and artisanal small-scale mining operations pose considerable environmental hazards, notably the utilization of hazardous materials such as mercury in gold extraction, leading to the contamination of water resources. Furthermore, ASM frequently transpires in impoverished regions, where mining is perceived as a means of escaping economic adversity. The latter complicates the ability of governments to prohibit the practice without providing alternate means of living (Okan et al., 2015).

2.2.4 Approaches to the Mining Sector and CSR

Okan et al. (2015) assert that community relations hold strategic significance for mining companies, particularly in addressing the potential high costs associated with activist actions and securing a competitive edge within the industry. The concept of CSR provides a valuable framework for examining companies' attitudes toward their diverse stakeholders (Okan et al. (2015).

Okan et al. (2015) further emphasize the significance of CSR initiatives within the mining sector, noting that previous studies have scrutinized references to CSR in the annual reports, sustainability reports, and social and environmental reports of corporations. These studies suggest that the survival of corporations is significantly influenced by the perceptions of various stakeholders concerning the social and ecological outcomes of mining operations. Nonetheless, it can be observed that in numerous instances, the CSR strategies fail to adequately mitigate the responses of stakeholder groups, or mining companies may not be perceived as genuinely benevolent despite their assertions to the contrary.

Through case studies in the mining industry, Okan et al. (2015) assert that mining companies encounter highly intricate social and environmental challenges in their operations, which complicates the resolution of potential conflicts with local communities. The findings indicate that compensation strategies, community funds, and development projects fail to yield the anticipated outcomes in alleviating social pressures due to a multitude of conflicting demands. Furthermore, based on their case study of mines in South Africa and Zambia, Okan et al. (2015) suggest that a significant disparity exists

between the CSR initiatives of mining companies and the criteria of “accountability and fairness.”

2.2.5 Mining Value Chain

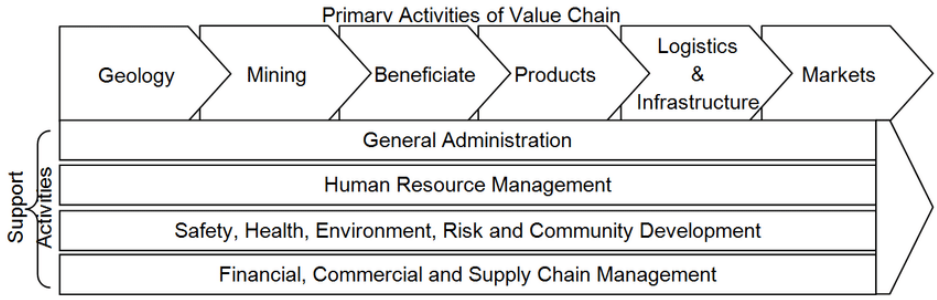


Figure 2. 2 *Value chain for a mining project* ***(Steenkamp, 2018)***

Porter (1985) proposed the notion of the "value chain" to include the comprehensive array of activities involved in the progression of a product or service, commencing from its inception, moving through various stages of manufacturing, and

distribution to reach customers and culminating in its ultimate disposal post-consumption. As the product transitions through different activities for customers within the supply chain, it is commonly presumed to accrue added value. The value chain can be a strategic tool for breaking down a corporation into its primary functions; facilitating an "industry-level value chain analysis is an effective way to examine the interaction among different players in a given industry…" (Zamora, 2016, pp. 1-13).

The gold mining value chain involves various activities, from exploration and extraction to processing, marketing, and responsible environmental and social practices. Each stage is interconnected and plays a critical role in ensuring the successful production and distribution of gold. Effective management of these activities is essential for the sustainability and profitability of gold mining operations.

Using industry-level value chain analysis proves to be a highly efficacious approach for scrutinizing the interplay between various stakeholders within a specific industry value chain (Zamora, 2016). Although not directly engaged in the day-to-day mining operations, secondary stakeholders in the mining value chain have a significant interest in or impact on various stages of the mining value chain. According to T.G. Williams(2019), illegal mining

poses substantial risks to people's safety and lives. His research highlights the detrimental effects of illicit mining on gold mining activities, drawing insights consistent with findings from the Minerals Council of South Africa. Williams emphasizes that safety is a critical issue in the South African mining business, noting that some participants indicated that some people mines must increase security expenditures to protect the lives of their workers (TG Williams, 2019, p. 50).

Aryee (n.d.) further underscores the alarming nature of illicit mining practices, pointing out their encroachment on territories designated for legitimate mining firms. Furthermore, several ASMs have resorted to employing advanced weaponry, including cutlasses, firearms, and clubs, to safeguard themselves against potential trespassers. Sustainability in gold mining is a broad concept that does not just include the interests of stockholders or the well-being of workers. It also includes safe, profitable, and environmentally friendly operations that consider inputs from diverse stakeholders (TG Williams, 2019).

At every phase of this process, formal mining enterprises generally undertake capital-intensive activities that comply with regulatory requirements. Nevertheless, illicit and artisanal small-scale miners frequently infiltrate this chain during extraction, occasionally encroaching upon mining concessions or operating in unlicensed regions. Illegal mining and artisanal small-scale mining (ASM) are essential yet frequently neglected elements of the mining value chain (Hentschel, Hruschka, & Priester, 2002). According to Hilson (2016), these actors pose both a problem and an opportunity for established mining firms. By implementing strong CSR initiatives, firms can limit the dangers associated with unlawful mining while fostering sustainable development in mining communities. According to Hentschel, Hruschka, and Priester (2002), the artisanal mining industry must be addressed comprehensively, considering all socio-economic systems, to serve as a tool for development in the battle against poverty. In the case study of Sadiola Mine, according to Hentschel et al. (2002), the artisanal mining sector functioned as a vital economic catalyst for fostering the growth of complementary, sustainable, revenue-generating industries. The funds produced by the mining communities have facilitated the establishment of small enterprises that are effectively integrated into the local economic framework and considerably contribute to the sustainable development of the Sadiola region (Hentschel,

Hruschka, & Priester, 2002). The project has fostered beneficial changes in artisanal mining by enhancing organizational and management capacities for effective resource extraction; revenue-generating activities that enhance artisanal mining were established, local entrepreneurship was encouraged, purchasing power in local communities was elevated, and a reduction in subsistence-related activities was observed (Hentschel, Hruschka, & Priester, 2002).

2.3 Analytical framework - Conceptual framework

2.3.1 CSR

Numerous studies have been conducted on CSR. Okan et al. (2015) highlight CSR as a self-regulating framework ensuring social accountability to stakeholders, including workers, customers, suppliers, and local communities. According to Carroll (1979, p. 500), the term means society's economic, legal, ethical, and discretionary expectations of organizations. Philanthropic obligations—firms' humanitarian efforts and social contributions—top the pyramid. The approach mandates economic and legal duties as "Required". All pyramid aspects must be met concurrently, although the researcher notes that the organization's economic success is a basic requirement.

2.3.2 Stakeholder Theory

Businesses should benefit all stakeholders, especially those who can influence or are impacted by them. Okan et al. (2015) state that stakeholders are groups that impact or are affected by business goals. Resources and stakeholder contributions are essential for a company's success and survival Okan et al. (2015). According to Freeman (1984), stakeholder management is a win-win collaboration in which managers match their goals with stakeholders' needs and expectations. Stakeholders and CSR are naturally linked. Corporate planning recognizes that stakeholders might limit the company's activities, so management must understand stakeholder needs to define operational objectives and formulate plans that optimize shareholder benefits. Shareholders, workers, suppliers, government agencies, local communities, indigenous peoples, environmental groups, and others are gold mining stakeholders. Identifying and categorizing stakeholders helps understand their interests and impact (Mzembe, 2016).

Secondary stakeholders include local communities (Charan, 2018). According to Adoko Obicci (2022), primary stakeholders have a formal, official, and contractual relationship with the organization, while secondary stakeholders may influence or be influenced by it. Secondary stakeholders do not interact with the firm and are not necessary for its survival despite their capacity to disrupt operations (Adoko Obicci, 2022). Artisanal and small-scale mining (ASM) is formal or informal mining with low capital intensity, high labor intensity, and simple exploration, extraction, and processing technologies (B2Gold, 2023). Idrobo (2014) notes that illicit mining's encroachment on mining concessions might hinder regular mining operations and cause resource access issues.

2.3.3 The Mining Value Chain

Value chain analysis may help analyze the interactions of industry actors and break down a firm into its core tasks (Zamora, 2016). The gold mining value chain includes exploration, extraction, processing, marketing, and environmental and social responsibility. Interconnected stages are crucial to gold production and delivery. Although not directly involved in mining operations, secondary stakeholders have a substantial interest in or effect on many stages of the mining value chain (TG Williams, 2019). Illicit and artisanal small-scale miners may enter this chain during extraction, often infringing on mining concessions or working in unauthorized areas. Illegal and artisanal small-scale mining (ASM) is crucial to the mining value chain but often overlooked (Hentschel, Hruschka, & Priester, 2002). According to Hentschel et al. (2002), in the Sadiola region, the initiatives put in place have improved artisanal mining by improving organizational and managerial capabilities for resource extraction and revenue-generating activities.

Below is the conceptual framework that guided the study.

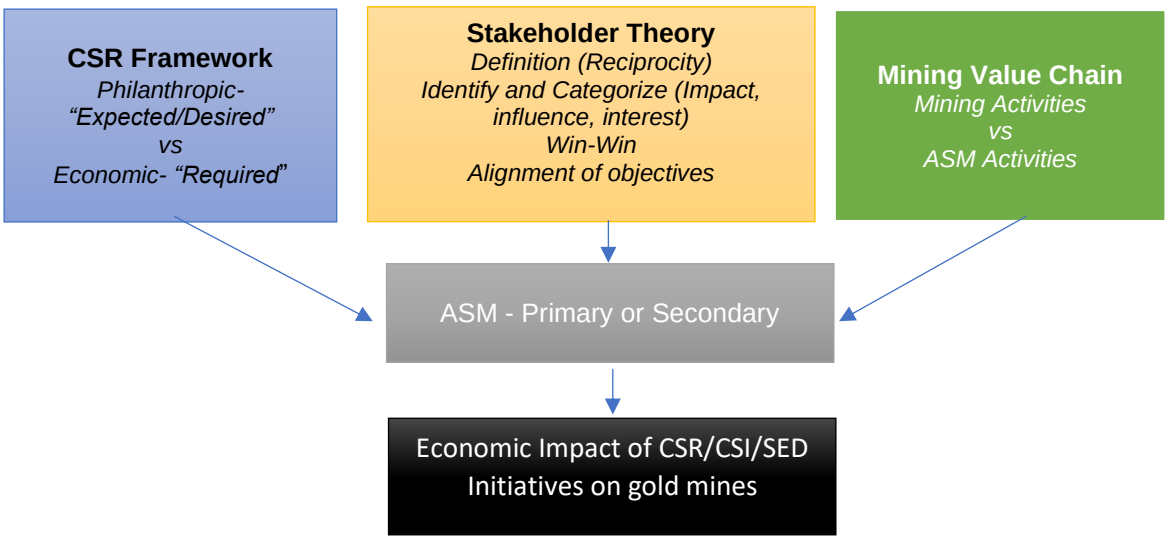


***Figure 2. 3**: Conceptual Framework*

2.4 Conclusion

Integrating Stakeholder Theory and CSR theory is crucial to understanding how mining companies foster relationships with local communities that are both directly and indirectly impacted, affected, or influenced by mining operations and, conversely, how these communities can impact, affect, and influence mining operations. This understanding is important within the framework of sustainable socio-economic initiatives undertaken by companies.

Analyzing CSR activities through the lens of stakeholder theory reveals how Okan et al. (2015) and Freeman and McVea (2005) elucidate the importance of evaluating and integrating corporate responsibilities and objectives toward stakeholders. Additionally, the Gold Mining Value Chain model facilitates a deeper comprehension of the complex interactions between gold mining firms and the individuals, organizations, and entities involved in or impacted by gold mining activities. This includes ASM, whose activities can adversely affect the economic success of mining organizations.

2.5 Research Proposition

The economic success of mining companies in West Africa is impacted by the way management (1) identifies and categorizes stakeholders for sustainable socio-economic or CSR initiatives and (2) assesses whether such initiatives are successful and sustainable in securing a social license to operate.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

Ortiz (2007) describes research design as the structure that underpins a research project, acting as the link that connects and enables the flow of its different components. Ortiz (2007) argues that the research design is the idea that guides the study, encompassing the plan for gathering, measuring, and analyzing data. Similarly, McCombes (2023) points out that the research design gives a framework for collecting and analyzing data, specifying the most suitable research methods. So, the research design can be likened to a map, directing the researcher on how to collect, measure, and analyze the data to answer the research question or solve a problem.

There are many approaches to gathering, measuring, and analyzing data to address the research problem effectively. Twelve research designs exist, including action, case, casual, cohort, cross-sectional, descriptive, experimental, exploratory, historical, longitudinal, meta-analysis, and observational (Pawar, 202).

Pawar (2020) further states that exploratory research is useful when a researcher does not know much about the study topic or has little experience with it. Exploratory research is typically the first step in understanding a problem and its dynamics. Its primary goal is to find out more about a topic that is not well documented or assess the possibility of conducting further research on the subject.

In the context of Artisanal Small-Scale Miners (ASM) or illegal gold mining, the literature provides limited insights into their impact on the sustainability and continuity of gold mining operations. This is especially true for gold mining in the West African gold mining industry, where Artisanal Small-Scale Miners' activities are often criminalized due to their invasive nature concerning formal mining operations. This study uses an exploratory research design method to add to what is known and point out areas that require further research (TG Williams, 2019).

The exploratory approach was instrumental in answering the main question of this study's research.

3.2 Data Collection Method

Sakyi (2020) explains that research methods are specific strategies used to collect and analyze data in a manner that ensures reliable results and conclusions. Research methods typically encompass definite activities designed intentionally to enable data generation. They include the actions, plans, and strategies the researcher uses to gather information to answer the research question.

Williams (2007) states that qualitative, quantitative, or mixed methods can reach the study goal. The quantitative research method employs numerical data and measurable elements to learn more about a problem or a phenomenon and how the elements relate to each other (Sukamolson, 2007). It is based on the idea that reality or information is objective, can be measured, and that the researcher remains independent of the phenomenon being studied.

The qualitative research method, on the other hand, is the exact opposite. In qualitative research, truth and knowledge cannot be separated from the cultural and social ideas of the people affected by a phenomenon. Mzembe (2016) suggests that qualitative research methods focus on getting a deeper understanding of a phenomenon by collecting and analyzing opinions, attitudes, and beliefs.

Using a mixed exploratory approach with a combination of quantitative and qualitative research methods is an effective way to understand how ASM affects the long-term viability of gold mines (Antwi-Boateng, 2020). Therefore, this study aims to gather and analyze the data on the impact of illegal mining on the financial performance of mining companies. This will be supported by the views, attitudes, and beliefs of gold mine workers and management about socio-economic sustainable development initiatives and ASM's impact on the gold mine's ability to remain operational.

3.3 Population and Sampling

According to Acharya (2013), a study group or population is all the parts of the universal set or the participants from whom the necessary information is gathered to answer the research questions. The group or population is the total number of objects to be evaluated, i.e., people or objects that fit the conditions already set and about which inferences are to be drawn. Acharya (2013) further states that the target group or population is a smaller circle that includes all the individuals or things from which the sample is taken. For this study, the group

or population consists of mining employees and numerical financial data of gold mines in West Africa. These groups or populations of employees can be categorized into two main groups: those who make decisions and those who carry them out.

The mining operations /business units studied belong to one of the world's top five biggest gold-producing companies, which operate in over ten countries worldwide. Six participants were selected to represent three major gold mining operations in West Africa, including one NGO and two representatives from global headquarters. The population chosen included heads of departments from relevant functional areas of the firm. The participants possess extensive mining expertise, particularly in engaging with local communities, governments, and NGOs in the West African gold mining sector. Additionally, they communicate regularly within the global corporate network. All participants are over 38 years of age.

3.4 Research Instrument

A qualitative method was used to gather data. Quantitative research and/or inquiries aim to ascertain numerical quantities to establish empirical evidence. There are various categories of quantitative research methodologies. For example, it is possible to categorize a method as 1) survey research, 2) correlational research, 3) experimental research, and 4) causal-comparative research. Each type possesses distinct defining traits that represent its unique nature (Lazaraton, 2005).

According to Shaughnessy (2000), correlational research is a type of nonexperimental research in which the researcher measures two variables and assesses the statistical relationship (i.e., the correlation) between them with little or no effort to control extraneous variables. One reason for using correlation research is to measure the relationship between two independent variables to draw meaningful parallels (Shaughnessy, 2000).

TG Williams (2019) outlines various methods for collecting qualitative data, including action research, ethnographic research, focus groups, interviews, life history research, participant diaries, and structured observations. In this study, conversations were used to get first-hand information. Interviews are usually first-person stories the researcher obtains by talking to an individual over an extended period (Segal, 2006). Structured, semi-structured, and unstructured are all ways to describe how an interview is set up. Segal (2006) argues that

in a structured interview, the researcher asks a set of questions that were planned ahead of time and are asked in the same order and with the same language as the interview schedule. On the other hand, semi-structured interviews are based on a list of questions but allow for more flexibility in responses so that the interviewee can answer the questions in their own way. In contrast, a free-form discussion is structured, with the interviewer not knowing what questions to ask (Adams, 2015).

According to TG Williams (2019), data gathering from gold mining businesses, secondary stakeholders, and pertinent governmental organizations should be conducted using a mixed-methods approach, which includes surveys, interviews, and document analysis. A qualitative investigation with a manageable sample size of participants is recommended to achieve representative data points. Therefore, a mixed-methods approach incorporating questionnaires and document analysis was used to gather data from a sample of managers of gold mines in West Africa. Data were collected through specially designed questionnaires containing 11 open-ended questions to provide a detailed account of the process rather than relying on “textbook” procedures. This approach ensured that real and factual answers were gathered directly from managers, deputy managers, assistant managers, and Vice Presidents of the mining operations.

3.5 Data analysis strategies and interpretation

Direct content analysis was used to analyze the responses from the mining managers. Direct content analysis is a qualitative methodology used in stakeholder theory research to classify and examine textual material about stakeholder interactions, interests, and connections. It entails categorizing text according to predefined classifications or theoretical models by the principles of stakeholder theory (O’Leary et al., 2016). This aligns with the 6-phase coding framework for thematic analysis used to identify themes and patterns in the data (Clarke & Braun, 2013).

3.6 Limitation

The size of the sample was a limitation in this study. The sample consisted of Sustainability and Community Relations managers from publicly listed companies. Although their experience in the gold mining industry and handling social issues around mining operations is significant, a sample that includes big, medium, and small mining companies would provide a more representative view.

3.7 Quality assurance

Questionnaires with 11 open-ended questions were used to collect data through telephone and email correspondence. This allowed a detailed account of the process rather than receiving abstract answers. Further, it enabled the respondents to articulate and verify their responses. The mining operations /business units studied were purposefully chosen due to their significant impact on the business in the context of this study. These operations belong to one of the world's top five largest gold-producing companies, operating in over ten countries. Participants were selected based on their roles as heads of departments and their extensive mining expertise, particularly in engaging with local communities and dealing with Artisanal-Small Scale Miners in the West African gold mining sector.

3.8 Ethical considerations

This research project was designed and implemented with a strong focus on ethical considerations. No harm to participants was anticipated, and all necessary precautions were taken to safeguard the data and responses provided by the participants. Informed written consent was obtained from all participants, who were assured of their anonymity. Participants were informed that other researchers might utilize the information they provided anonymously for academic purposes, contingent upon obtaining appropriate ethics clearance.

CHAPTER 4: RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The preceding chapter demonstrated a detailed account of this study's research design and methodology. A mixed-method approach research design was applied to understand the approaches used by mining companies operating in the West African gold mining sector. Because mining companies are confronted with demands from local communities and business interruptions from ASM activities while having CSR and SED programs in place, the research objective is to explore factors and principles applied to determine CSR and SED initiatives by Gold mining operations to

- Investigate the implications of misalignment between operational objectives and stakeholder needs on CSR/SED efficacy.
- Examine the definitions and classifications of primary and secondary stakeholders within the mining sector.
- Analyze the role of Artisanal and Small-scale Mining (ASM) operators as stakeholders and their influence on mining operations.
- Propose strategies to enhance alignment between mining companies' objectives and stakeholder needs to improve CSR/SED outcomes.

Guided by the research question, direct content analysis was used to analyze the responses from the mining managers to classify and examine textual material about stakeholder classification, categorization, interests, impact, and attributes. An analysis of secondary data and case studies from gold mining companies on the impact of ASM on mining operations followed this.

The findings were correlated to principles and best practices according to Stakeholder Theory and Mining Value Chain to determine if there are any inconsistencies or inadequacies in the application of these management theories and, as a result, whether these are contributing factors to the adverse impact on the mining operations.

4.2 Research Findings

4.2.1 Responses from executive managers

4.2.1.1 Identifying stakeholders in the mining community

On how the mining company identifies the stakeholder, there seems to be a general view that it is through the "Stakeholder Mapping" process. This process broadly considers person/s or groups that have "direct" and "indirect impact", "influence" and "interest" in the mining operation, be it positive or negative.

The following were responses from the managers:

"*We undertake a stakeholder mapping exercise that looks at impact and influence on the mining operation (both positive and negative)."*

"Stakeholder mapping and assessments help us identify key groups affected by mining operations, including residents, community leaders, vulnerable populations, and government regulators. We also consider employees, contractors, unions, NGOs, and investors. Through these tools, alongside consultations with traditional leaders, we gain a deeper understanding of each group's influence, concerns, and interests."

"Establish an exhaustive mapping of the actors according to several entry criteria: Political, institutional, social, environmental, economic, cultural, etc."

"Stakeholder identification is driven by the business strategy and an understanding of the company's risk and operating environment. Understanding your key areas of interest and what could potentially negatively/positively affect business will lead you to identifying your key stakeholders based on interest and influence, among others…"

"They are identified according to the impact of the mine operations and their direct and indirect implications in the mining project."

"By utilizing tools such as stakeholder mapping to identify all actors that have both potential and active influence on the mining operations."

4.2.1.2 Categorizing stakeholders in the mining community

When asked how the mining company's stakeholders are categorised, respondents in general asserted that they categorise stakeholders according to communities /group /persons: 1. affected by the mining operation 2. that have "influence", "interest", "Power"

and 3. operational impact on the mining company. Sixty-six percent of respondents mentioned "Influence" followed by "Interest", which was mentioned by 50 % of the respondents.

Figure 4.1 graphically depicts the company's stakeholder categorization as viewed by the respondents.

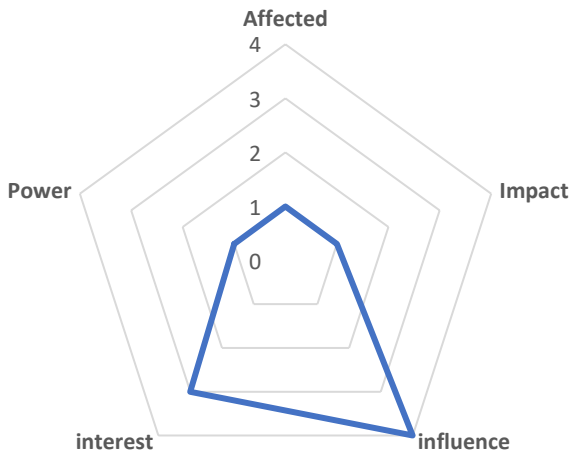


***Figure 4. 1**: Categorization of Stakeholders*

The following were the participants' responses:

"We have government / regulators (national, regional, and local), host communities (directly impacted communities - those you can see from the headgear), NGOs, and donors."

"We categorize stakeholders in the mining community based on their influence and interest in the project."

"The holding company, shareholders, customers, employees, directors."

"1, The direct impacts, 2, The indirect impacts, 3, The other stakeholders with an interest or power in the operation of the mine..."

"Each mining company categorizes their stakeholders according to their unique business profiles and operating environment. At AGA, we categorize stakeholders based on groups or people that are directly or indirectly affected by the project or Mine. Including those groups/persons who may have interests in a project and/or the ability to influence its

outcome either positively or negatively. This approach applies to all AGA sites and would only differ when there are unique characteristics/qualities of stakeholders based on the operating (country, culture, religion., laws etc.) context and conditions."

“They are categorized according to their status and their degree of influence (high, medium, low) on the mining operations."

“By using the level of influence and operational impact including the risk matrix.”

4.2.1.3 Operation’s Primary stakeholders

There is consensus that Primary stakeholders of mining companies, in the study's context, involve communities directly impacted by the mining operation; “impact” and “influence” were common attributes of a primary stakeholder.

“Those who can have a high influence and impact on the mining operation (both positive and negative). This can include communities that are indirectly impacted / not impacted by the Mine but due to ***proximity*** *to the mining operation could be submitting requests to the Mine.”*

“*The primary stakeholders in mining operations are those directly impacted by the activities. These include Local community members, Traditional Authorities, and regulatory bodies.”*

By establishing a "*power and interest*" analysis grid, stakeholders include:

“Employees, Investors, Shareholders, Business partners (JVs etc.), Suppliers, Communities, Government, NGOS and Civil Societies, Media, industry peers (our standard also provides a breakdown and definition for some stakeholders).”

These are the impacted communities, customary authorities, other organisations/groups, and administrative authorities located in the impact zone of mining operations and who have a direct influence on the Mine:

employees, shareholders, business partners (suppliers).

4.2.1.4 Operation's Secondary stakeholders

According to the majority of respondents, secondary stakeholders have no influence /impact on the mining operation; they may either be indirectly affected or indirectly influenced by mining activities/operations.

"Those stakeholders that we need to inform of the Mine's activities but have little to no influence / impact of the mining activity, but it is key to keep them informed."

"Secondary stakeholders in mining operations are those indirectly affected by or influencing the activities this includes local businesses, NGOs, civil society organisations, media, academia, researchers, and the broader public."

"1, Les autoctones et 2, Les alloctones."

"We do not necessarily categories our stakeholders between primary or secondary, all identified stakeholders are deemed primary - from a "secondary" perspective we will then identify which stakeholders are deemed as critical or within the particular category. A typical example could be between two communities (Community A and Community B). Community A is within 500m from the Mine, whilst the other is 5km away. The 500m community is more prone to experiencing negative impacts as a result of mining activities, which requires more engagement efforts and other activities in comparison to Community B. They both however remain primary stakeholders to the company. Another example can be with industry peers where at our Iduapriem mine in Ghana, Goldfields operates in the same jurisdiction as AGA resulting in the heightened possibilities of their operational activities directly or indirectly affecting our business (e.g. community issues that could spill over). The engagements with Goldfields will be completely different from another company that operates much further away or those that influence policy at a national level due to negative impacts on communities (e.g. see Samarco and Vale Tailings incidents in Brazil)."

"These are communities, customary authorities, other organisations/groups and administrative authorities located around the mine impact zone and who have no direct influence on the mine."

"Inspectors and regulators such as minerals commission, Environmental Protection Agency, Shareholders, decentralised agencies, community groups."

4.2.1.5 Illegal Mining and ASM Categorization

There is no outright precise alignment and standardization, as there was no standard categorization across the responses. Table 4.1, deduced from participant responses, shows that 25% of respondents explicitly categorized ASM and Illegal miners as primary or secondary stakeholders. However, "proximity" to mining operations and origination was mentioned in 42% of the responses, while “impact” was mentioned in 16% of the responses.

Table 4. 1: Categorization of Illegal Miners

Primary	1	
Secondary		2
	Illegal	ASM

“Illegal miners are a primary stakeholder for our mines...”

“Illegal miners are considered informal stakeholders in the mining society. While operating outside of legal frameworks, they have a direct impact on the environment, community safety, and formal mining operations.”

“Indigenous and immigrants.”

“Illegal miners, who operate on or adjacent to our operations are categorised as stakeholders and are engaged according to their impact and activities. They have a potential to negatively impact our business and communities."

“They are categorized according to their origin (presidential communities of the mining zone and those coming from other regions in the country and from other neighboring countries).”

“They do not fall into any category as they are illegal.”

ASM

“They are our secondary stakeholders.”

“They are considered sectoral stakeholders within the broader mining industry.”

“ASMs using traditional mining methods and AMS practicing semi-industrial mining.”

"ASM's are also considered to be stakeholders, similar to illegal miners - these would include ASMs who operate on or adjacent to our operations. Formalised ASMs who operate legally (and not on AGA property) could even go as far as receiving growth support from the company which the illegal miners would not necessarily receive.

They are categorised according to the types of materials, equipment and products used as well as their origin.”

“Categorised as secondary stakeholders. “

4.2.1.6 Developing CSI/sustainable development initiatives

An overwhelming majority of respondents indicated that the development of CSI/sustainable initiatives involves a participatory community engagement process through a “socio-economic studies and community consultations...” by “conducting social baseline studies to understand the social conditions and dynamics of communities. This is followed by vigorous stakeholder engagement processes to understand and identify the needs of the communities. Community Investment plans must be developed in collaboration with communities, who are the ultimate beneficiaries, to ensure their interests and needs are taken into consideration..." as depicted in ***Figure 4.2.***

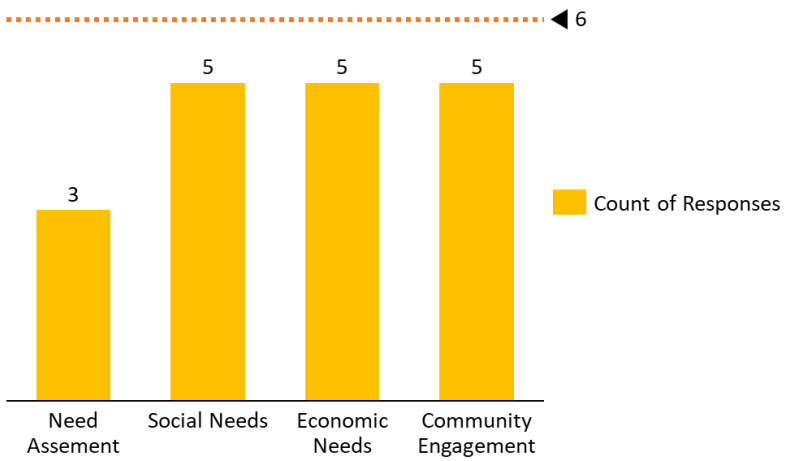


***Figure 4. 2**: How Managers Develop Sustainable Initiatives*

1. *"i. Review of socio-economic baseline data (national, regional, and local). ii. Engagement of primary and secondary stakeholders to understand needs (needs assessment). iii. Review of local economic development plans (these are government plans). Numbers ii and iii are done to ensure that there is a link between what the government is doing and the needs expressed by host communities."*
2. *"A multistakeholder approach to needs assessment involves engaging various community members, organizations, and institutions to identify and validate the community's needs. This collaborative process ensures diverse perspectives are considered, leading to more comprehensive insights. Once the needs are assessed and validated, interventions are co-designed, allowing stakeholders to contribute their expertise and resources."*
3. *"i. Situation analysis by the IR2P method, ii. establishment social profile, iii. establishment economic profile, iv. environmental profile establishment, v. establishment of governance profile, and vi. application of the RIA method developed by UNDP."*
4. *"Utilizing participatory approaches to come up with short to medium-term socio-economic development plans with partners and stakeholders. Unsolicited requests and donations, etc."*

4.2.1.7 Determining stakeholders and beneficiaries of CSI/sustainable development initiatives

Two respondents seem to imply that stakeholders and beneficiaries are identified through CSI/Sustainable development initiatives objectives based on “need and impact".Other respondents assert that "contributions (be in monetary or in-kind) address the social upliftment of communities. It is designed to directly benefit the local communities…”. “Stakeholders in CSI/Sustainable development initiatives are the community and administrative leaders, NGOs (depositories of authorities/decision makers) and beneficiaries are members of the impacted communities (men, women, children, community groups and associations undertaking socio-economic activities”.

4.2.1.8 Budget of CSI project/sustainable development initiatives as % of total direct cost

1. *“1% (04 to government and 06% CSI).”*
2. *“Obuasi Mine 10-YEAR SEDP implementation has an annual budget allocated for CSI projects. An average amount of $3.m is being budgeted for CSI annually.”*
3. *“70% environment.”*
4. *“Our current SED budget and spend is not determined by production/profit. Currently, this is only guided by regulatory requirements in some countries where we operate. E.g. in Ghana, we are required to contribute $2 per ounce to a Community Trust Fund. Monies are paid into a separate bank account, and the trust identifies and implements its own Community Investment programs (of course, for better impact and sustainability, some projects will be aligned to the Mine's projects or vice versa). AGA forms part of the board of directors along with other external stakeholders and has the naming rights for the two funds (Obuasi Community Trust Fund and Iduapriem Community Trust Fund respectively). In Guinea, we are required to contribute to a FODEL fund (a Local Economic Development Fund) which also requires companies to pay a certain % of turnover to the government for implementation of CI initiatives. This fund has since been caused by government.”*
5. *“0.6%.”*

6. *“Budget for CSI is not a factor of cost. It’s determined by needs prioritized and approved within a financial year.”*
7. *“B2G – 2%, procurement spend 1% Fekola mine Mali.”*

4.2.1.9 Measuring success for CSI/sustainable development initiatives

1. *“Delivery of physical infrastructure 2. Change in human development index (# of school children accessing school, # of people access a health facility, # of people establishing success enterprises etc.”*
2. *“We assess the effectiveness of sustainable development or community social investment programs by setting clear goals, monitoring success using KPIs, gathering baseline data, conducting formal evaluations, and obtaining qualitative insights from stakeholders. This approach allows us to refine our strategy and ensure that projects are responsive to community needs. We measure success by evaluating both short- and long-term impacts on beneficiaries, ensuring alignment with objectives, sustainability of outcomes, and positive economic and environmental effects, while regular monitoring and stakeholder feedback help track progress and effectiveness.”*
3. *“The sustainable development actions included in the PDES are based on indicators selected from the RIA grid developed by the UNDP.”*
4. *“Setting objectives and goals at the beginning of the project helps with monitoring and tracking. Success must be defined at the start of the project in order for you to measure its performance against clearly set out KPIs.”*
5. *“Through Monitoring and evaluation (Tools development, data collection, meeting with the stakeholders and the beneficiaries, etc.)”*
6. *“As part of the development plans a monitoring and evaluation framework is developed which spells out measurable indicators for outcomes and outputs. Evaluations and activity monitoring is conducted to determine success.”*

4.2.1.10 Case Study- ASM/illegal Mining Impact

A subsidiary of a major gold mining corporation in West Africa, which has operated in the region for over twenty years, was infiltrated by artisanal and illegal miners in the active mining zones. The projected loss in gold production attributable to ASM-related activities

from March to September 2023 is around 28 Koz, encompassing around 1 952 hours of diminished excavator productivity due to mine management halting operations to prevent contacts. This also encompasses the decline in plant feed grade resulting from the extraction of high-grade ore veins, amounting to approximately 4,000 ounces per month during the seven-month duration.

***Figure 4. 3**: Impact of ASM on production output*

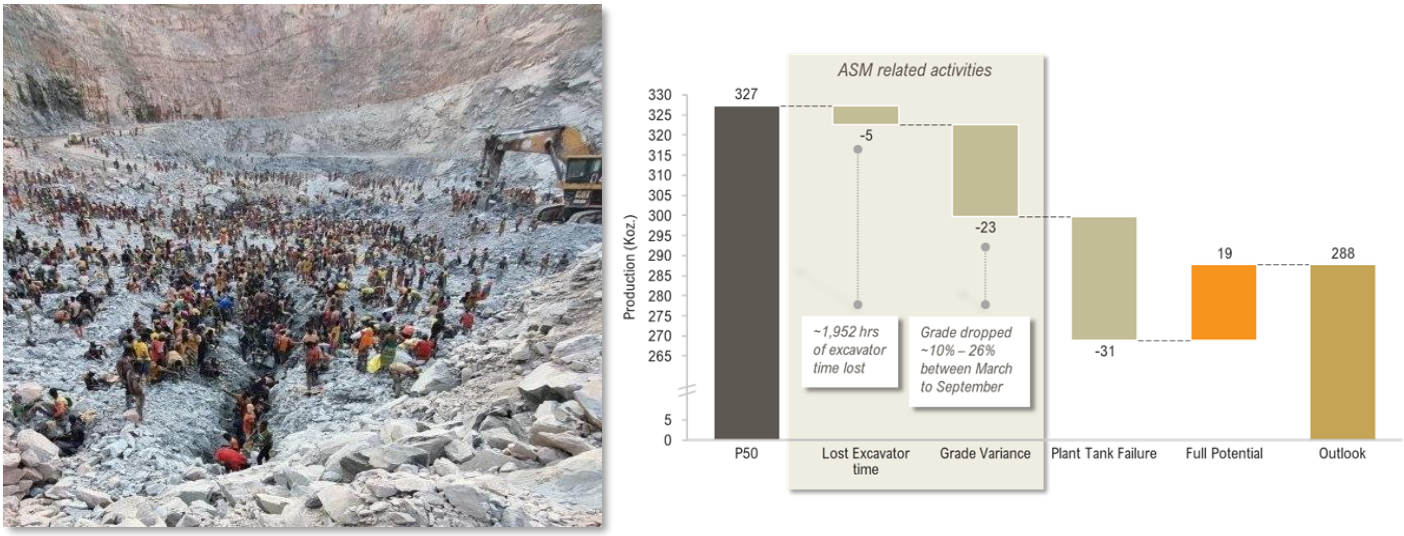


***Figure 4. 4**:ASM invading active mining areas .*

In the latter part of 2023, a working group was formed to involve key community members (youth, elders, district leaders, mayor, sub-prefect, prefect, Governor) in developing the Terms of Reference (ToR) for a representative forum. This forum would foster a dialogue with community stakeholders, contribute to community investment strategies, and implement an early warning system to identify discontent or conflict. This workstream utilized the findings from the recent perceptions survey to address key concerns, including the formulation of the long-term Social and Economic Development Plan and the pursuit of sustainable incentives for communities to mitigate encroachments into active mining zones. The procedure culminated in the appointment of local community members, predominantly teenagers, to collaborate with security teams hired by the mining business to safeguard the pits. This led to a significant reduction in the occurrence of ASM encroaching on mining

activity. This ensured the mining corporation did not forfeit high-grade ore, corresponding to around $60 million in income.

Figure 4.5 depicts the lost mining hours from the ASM pit invasion from 2023 to 2024. It highlights the impact of incorporating local communities within the core value chain activities post-January 2024.

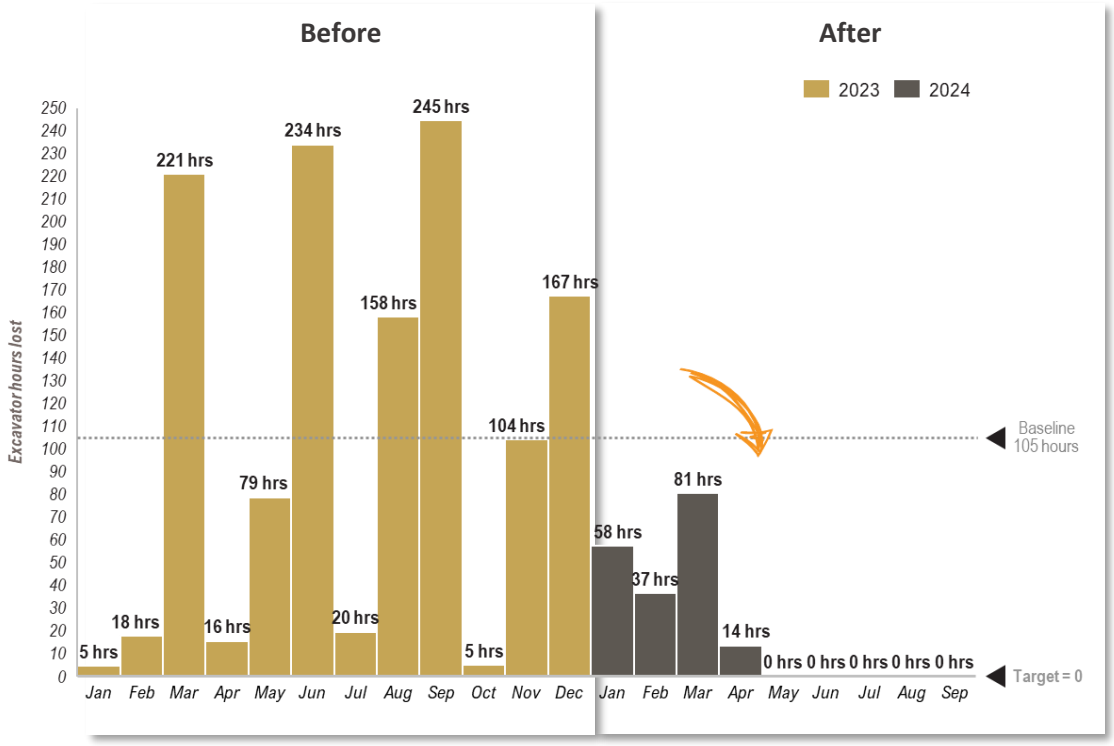


***Figure 4. 5**: Excavator hours lost – Impact of ASM in Value Chain*

4.2.1.11 Case Study – Fekola Mine in Mali

The Fekola Mine in Mali (B2Gold, 2023) has successfully engaged ASM miners in and around B2Gold's mining and exploration licenses to obtain land for its expanding activities. According to B2Gold (2023), ASM miners, communities, and local authorities are extensively consulted to ensure proper land acquisition and livelihood restoration for affected ASM populations. B2Gold (2023) extended its regional activity in 2023 to prepare for mining in Anaconda. The company expects impacts on ASM miners in the area to be potentially significant and recognizes the potential for conflicts over land access and the loss of livelihoods. Consequently, (B2Gold (2023) implemented livelihood alternatives for displaced miners and social investments for host communities to mitigate potential negative impacts resulting from in-migration. Additionally, harm reduction initiatives were introduced for artisanal miners to tackle environmental and health hazards linked to artisanal mining (B2Gold, 2023).

4.3 Discussion of findings

The respondents' perspectives on identifying stakeholders through stakeholder mapping include individuals or groups that exert direct and indirect impact, influence, and interest in mining activities. This perspective aligns with O'Leary et al. (2016), who assert that Stakeholders are individuals, groups, organizations, or institutions that can influence or be influenced by the policies of another individual, group, organization, or institution. However, the predominant perspective of managers appears to be unilateral, focusing only on the stakeholders' interests rather than adopting a more reciprocal viewpoint that encompasses the notion of being "affected as well as affecting" in defining a stakeholder. The mapping and identification of stakeholders are predicated on their "impact," "influence," and "interest" in the operation rather than the effects of the mining business on the stakeholders. This contradicts O'Leary et al. (2016), who posit the importance of reciprocity…" The author further states that "...past studies had little been written about reciprocity in stakeholder relationships, noting that past studies have overlooked this reciprocal nature of responsibility in stakeholder theory The categorization of stakeholders aligns with their identification, as most respondents indicate a preference for fostering robust relationships and enhancing engagement with stakeholders possessing attributes of "Influence" and "Interest" in operations.

The respondents did not explicitly categorize stakeholders as Primary or Secondary; however, their definitions of these categories are notably distinct. Most respondents identified Primary stakeholders of mining companies, within the study's context, as communities directly affected by mining operations, with "impact" and "influence" as common attributes associated with Primary stakeholders. On the other hand, secondary stakeholders were perceived as having little influence or impact on mining operations; they may be either indirectly affected or indirectly influenced by these activities.

There was a lack of explicit alignment and standardization among the respondents, as there was no uniform categorization of ASM and illegal miners as primary or secondary stakeholders. Nonetheless, "proximity" to mining operations and origin were referenced in 42% of the responses, while "impact" was noted in 16% of the responses. Literature excludes ASM and illegal miners as primary or secondary stakeholders. However, based on the case study regarding the significant impact on the gold mining company and the

managers' identification and categorization of stakeholders, it can be inferred that ASM and illegal miners should be regarded as primary stakeholders. This inference is consistent with O'Leary et al. (2016), quoting Clarkson (1995), who said that a primary stakeholder "…is one that if the company does not have this stakeholder, the company will not be able to continue as a going concern." This is the case with ASM and illegal Miners.

None of the respondents mentioned or linked stakeholder CSI initiatives and measures of their success to Mine Value Chain impact, despite empirical evidence, as shown in Figure 4.6 and the case study, highlighting the importance of considering secondary stakeholders' involvement in the core mining value chain. Furthermore, the opportunity cost of SCI/CSR/SED initiatives compared to the ~$60-million-dollar impact on the profitability of gold mining operations due to the impact of ASM invasion is very high.

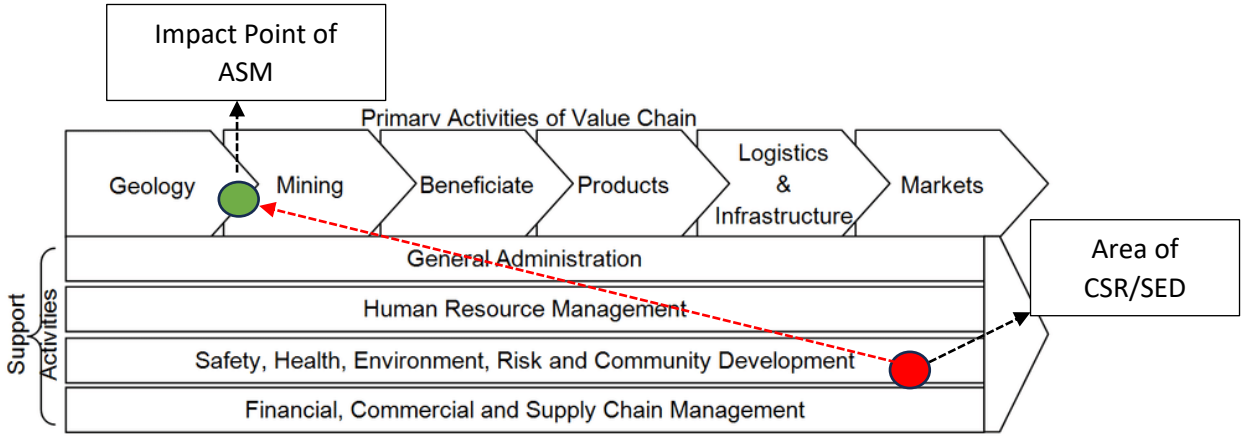


Figure 4. 6**: Value chain for a mining project **(Steenkamp, 2018)

The discrepancies in the definitions of primary and secondary, along with their effects on mining operations by gold mining company managers, contradict stakeholder theory principles. These inconsistencies undermine the effectiveness of CSR, SED, and CSI initiatives through stakeholder identification, categorization, and management, ultimately affecting the social license to operate. This is demonstrated by community-driven operational stoppages cited in the case study. Such disruptions result in detrimental effects on the company due to time losses and grade depletion, suggesting that the strategic stakeholder engagement process requires reevaluation and alignment with broader

operational and strategic objectives, as this affects the economic viability of the mining companies.

In developing CSR/CSI/SED initiatives, beneficiaries, and measures of their success, the managers prioritize a philanthropic approach over an economic one, contrary to the principles of the four elements of the CSR pyramid. According to Carroll (2016), the Economic success of the company is “Required”, while Philanthropic achievements are “Expected/Desires”. This is contrary to the Manager’s measure of the success of CSI/CSR/SED initiatives, which is based on philanthropic success rather than the company's economic success. According to Carroll (2016), the theory emphasizes a unified and integrated approach of all elements. It is contradictory how managers develop CSR/SED/CSI initiatives and measure their success as they tend to favor the philanthropic element. Carroll’s (2016) CSR Pyramid suggests that the economic element is a fundamental baseline requirement. Therefore, it can be used to measure the success of CSR initiatives. It is imperative, as it forms the foundation of all elements in the pyramid. It is essential to link the company's economic success to the established CSR initiatives. The case study showed how the impact of ASM activities, which overlapped with the organization, affected the company's economic success.

4.4 Conclusion

A win-win situation / shared value is nonexistent in the current approach to SCR/SED/CSI and associated stakeholder management. Carroll (2016) posits that there is a natural harmony between stakeholders and corporate social responsibility (CSR), defining stakeholder management as a mutually beneficial relationship in which managers align their objectives with the demands and expectations of stakeholders. Chapter 5 presents the summary of findings based on responses from management and the deductions made.

CHAPTER 5: CONCLUSIONS, RECOMMENDATIONS FOR FUTURE RESEARCH

5.1 Summary of findings

Figure 5.1 summarises the findings based on the responses from management and the deductions made from case studies and contracting with Stakeholder Theory, CSR Theory, and the Value Chain. It clearly depicts in green the “operational impact” oriented approach in identifying and categorizing stakeholders. However, when it comes to developing and identifying beneficiaries of CSR/sustainable socio-economic development initiatives, the process is more “stakeholder impact” orientated. The two processes do not align the mining company’s objectives with the needs of stakeholders.

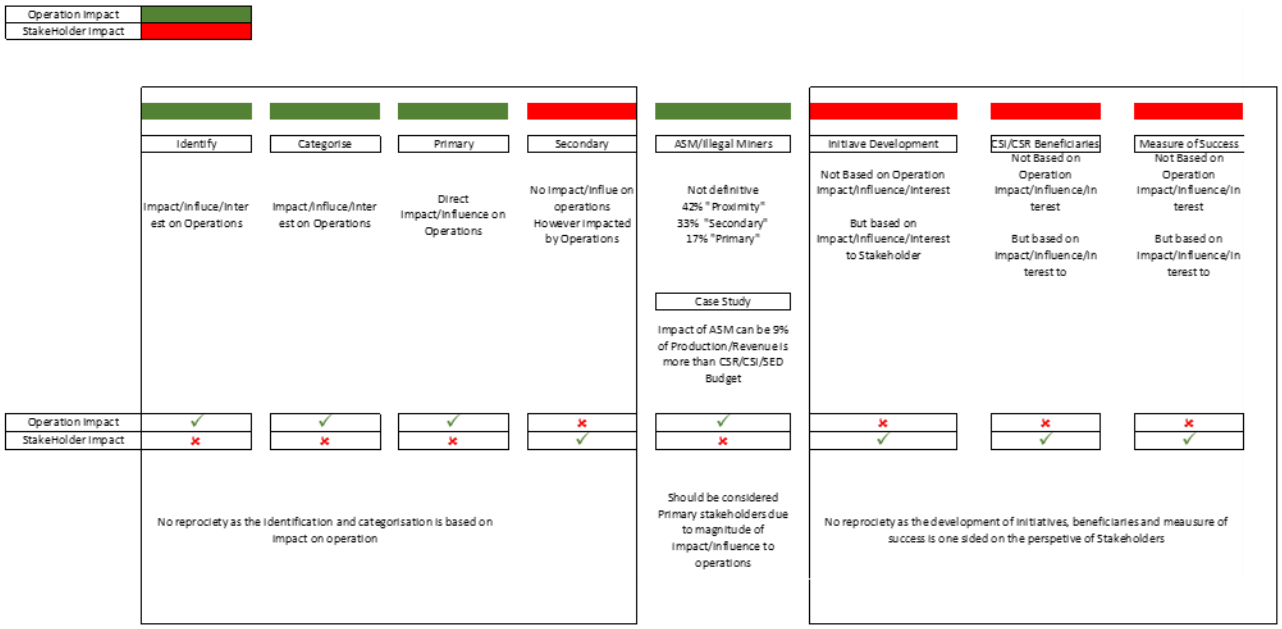


Figure 5. 1 *Summary of Findings from West Africa Management Response*

5.2 Conclusion

The research reveals a lack of reciprocity in the identification and mapping of stakeholders, focusing only on their impact on mining businesses, with an emphasis on their effect, influence, and interest in operations. Most respondents do not categorize stakeholders as Primary or Secondary, but their definitions are distinct. Primary stakeholders include populations directly impacted by mining activities, whilst secondary stakeholders have less influence or effect on these operations. The research emphasizes the significance of acknowledging the participation of secondary stakeholders in the mining value chain.

The inconsistencies in the definitions of primary and secondary stakeholders diminish the efficacy of CSR, SED, and CSI efforts. This contradiction undermines the process of seeking the social license to operate, suggesting reasons that lead to local community stoppages, resulting in adverse impacts on mining companies. The research indicates that the strategic stakeholder engagement process requires a review and alignment with the overarching operational strategy goals. The existing method of stakeholder management fails to synchronize managers' company objectives with those of stakeholders.

ASM should be considered as primary stakeholders given their significant impact on operations. As demonstrated in the case study, ASM activities can account for as much as 9% of revenue—more than the budget allocated for CSI.CSR/SED initiatives.

5.3 Recommendations and Future Research

The results of this study should not be generalized, as they originate from management within a particular gold mining firm. This study advances theoretical progress in the field. Conducting comparative research across multiple organizations within a broader sector and context would be beneficial. We recommend that the stakeholder identification and categorization procedure recognize ASM as a primary stakeholder in regions with a significant presence of artisanal miners. Moreover, the consequent CSR/sustainable socio-economic initiatives should regard ASM as primary stakeholders and explore their participation within the core mining value chain, as ASM activities often compete for similar outcomes.

Bibliography

Acharya, A. S. (2013). Sampling: Why and how of it. *Indian Journal of Medical Specialties*, 330-333.

Adams, W. C. (2015). Conducting semi-structured interviews. *Handbook of practical program evaluation*, 492-505.

Adoko Obicci, P. (2022). Analysis of Local Government Physical Asset Management Practices Stakeholders: The Ugandan Case.

Ali, M. I. (2019). The Consequences of Illegal Mining in the Environment: Perspectives Behavioral, Knowledge and Attitude. *International Journal of Environment, Engineering and Education*, 25-33.

Antwi-Boateng, O. &. (2020). The Rise and Impact of Illegal Chinese Small-Scale Mining in Ghana. *Politics & Policy*, 135-167.

Aryee, F. A. (n.d.). The challenges of environmental governance: the case of mining activities in Ghana with emphasis on the Obuasi District of Ghana. *IOSR Journal of Environmental Science, Toxicology and Food Technology,* 82-90.

Ashanti, A. (2024, April 10). *Sustainability Report.* Retrieved from Anglogoldashanti: www.anglogoldashanti.com

B2Gold. (2023). *Responsible Mining Report.* Retrieved from B2Gold: www.b2gold.com

Bricki, N., & Green, J. (2007). *A Guide to Using Qualitative Research Methodology*. Retrieved 9 22, 2023, from http://fieldresearch.msf.org/msf/bitstream/10144/84230/1/qualitative research methodology.pdf

Carr, L. T. (1994). The strengths and weaknesses of quantitative and qualitative research: what method for nursing? *Journal of Advanced Nursing, 20*(4), 716-721. Retrieved 9 22, 2023, from https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2648.1994.20040716.x

Carroll, A. B. (2016). Carroll's pyramid of CSR: taking another look. *International journal of corporate social responsibility*, 1-8.

Carroll, A. B. (2016). Carroll's pyramid of CSR: taking another look. *International Journal of Corporate Social Responsibility*, 1-5.

Charan, P. &. (2018). Secondary stakeholder pressures and organizational adoption of sustainable operations practices: The mediating role of primary stakeholders. *usiness Strategy and the Environment,*, 910-923.

Clarke, V., & Braun, V. (2013, February). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist*, 26(2):120-123.

Clifford, M. J. (2022). Artisanal and Small-Scale Mining and the Sustainable Development Goals: Why Nobody Cares. *Environmental Science & Policy*, 137, 164-173.

D'Amato, A., Henderson, S., & Florence, S. (2009). *Corporate Social Responsibility and Sustainable Business.* Greensboro: CCL Press.

Freeman, R. E. (1984). *Strategic management: a stakeholder approach.* Boston MA: Pitman.

Freeman, R. E., & McVea, J. (2005). *A Stakeholder Approach to Strategic Management.* The Blackwell handbook of strategic management.

Gavin Hilson, N. Y. (2006). Strained relations: A critical analysis of the mining conflict in Prestea, Ghana. *Institute for Development Policy and Management* , Pages 98-119,.

Gottfried, A., & Hartmann, C. (2021). Mining Open Government Data for Business Intelligence Using Data Visualization: A Two-Industry Case Study. *Creative Commons Attribution* .

Harmoni, D. A. (2013). Stakeholder-based analysis of sustainability report: a case study on mining companies in Indonesia. *International Conference on Eurasian Economies*, 204-210.

Harrison, J. S. (2013). Stakeholder theory, value, and firm performance. *Business ethics quarterly*, 97-124.

Hentschel, T., Hruschka, F., & Priester, M. (2002). *Global Report on Artisanal & Small-Scale Mining.* MMSD Report.

Hilson, G. (2016). Artisanal and Small-Scale Mining and the Sustainable Development Goals: Opportunities and New Directions. *World Development*, 94,262-272.

Idrobo, N. M. (2014). Illegal gold mining and violence in Colombia. *Peace Economics, Peace Science and Public Policy*, 83-111.

Jenkins, H. (2004). Corporate social responsibility and the mining industry: conflicts and constructs. *Corporate social responsibility and environmental management*, 11(1), 23-34.

Lazaraton, A. (2005). *Quantitative research methods. Handbook of research in second language teaching and learning.*

McCombes., S. (2023, May 31). *Knowledge Base.* Retrieved from scribbr: https://www.scribbr.com/methodology/research-design/

Mvile, B. N. (2024). Mining and sustainable development goals in Africa. *Resources Policy,*, 90, 104710.

Mzembe, A. N. (2016). Doing stakeholder engagement their own way: Experience from the Malawian mining industry. *Corporate Social Responsibility and Environmental Management*, 1-14.

O'Leary, B., Abratta, R., & Benn, S. (2016). Defining and identifying stakeholders: Views from management and stakeholders. *South African Journal of Business Management*, 1-11.

Okan, T., Peker, I., & Örs, Ş. (2015). A Corporate Social Responsibility Framework for Mining Sector Using Analytic Network Process. *International Business Research* , 9-25.

Okoh, G. (2014). Grievance and conflict in Ghana's gold mining industry: The case of Obuasi. *Futures, 62*, 51-57. Retrieved 9 22, 2023, from https://sciencedirect.com/science/article/pii/s0016328713001201

Ortiz, D. &. (2007). Research design: qualitative, quantitative, and mixed methods approaches. *Qualitative Research Journal*, 205-208.

Pawar, N. ((2020)). Type of research and type of research design. *Social Research Methodology*, 46-57.

Porter, M. E. (1985). How information gives you a competitive advantage.

Que, S. W.-O. (2018). The status of the local community in mining sustainable development beyond the triple bottom line. *Sustainability*, 10: 1749.

Ranängen, H. &. (2017). A path towards sustainability for the Nordic mining industry. *Journal of Cleaner Production*, 151, 43-52.

Reuters Staff. (2016, February 10). *PRECIOUS METALS & MINERALS*. Retrieved from Reuters: https://www.reuters.com/article/africa-mining-anglogold-ashnti-

Sakyi, K. A. (2020). Research methods and methodology.

Schwartz, F. W., Lee, S., & Darra, T. H. (2021, January 15). *A Review of the Scope of Artisanal and Small-Scale Mining Worldwide, Poverty, and the Associated Health Impacts.* Retrieved from agupubs.online library: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2020GH000325

Segal, D. L. (2006). Structured and semi-structured interviews. *In Clinician's handbook of adult behavioral assessment* , 121-144).

Shaughnessy, J. J. (2000). *Research Methods in Psychology.* McGraw-Hill.

Steenkamp, J. R. (2018). Validating a project life-cycle review framework for mining projects at EXXARO. *South African Journal of Industrial Engineering*, 3.

Suglo, P. E. (2021). Effects of Illegal Mining on the Environment, Economy, and Agricultural Productivity. *Biochemistry and Molecular Biology*, 79.

Sukamolson, S. (2007). Fundamentals of quantitative research. *Language Institute Chulalongkorn University*, 1-20.

TG Williams. (2019). *Illegal mining's effect on the sustainability of a South-African Gold mine.* Retrieved from North-West University (South Africa)): repository.nwu.ac.za

Tomislav, K. (2018). The concept of sustainable development: From its beginning to the contemporary issues. *Zagreb International Review of Economics & Business*, 67-94.

Vorster, A. (2021). Planning for value in the mining value chain. *Journal of the Southern African Institute*, 61-65.

Wilburn, K. M. (2011). Achieving social license to operate using stakeholder theory. *Journal of International Business Ethics*, 1-10.

Wilburn, K. M. (2011). ACHIEVING SOCIAL LICENSE TO OPERATE USING . *Journal of International Business Ethics*, 1-14.

Williams, C. (2007). Research methods. *Journal of Business & Economics Research (JBER)*.

Wireko-Gyebi, R. S.-E. (2022). Planning for the effective and sustainable management of Ghana's artisanal small-scale gold mining industry. *Resources Policy,*, 76.

Yakovleva, N., & Vazquez-Brust, D. (2018). Multinational mining enterprises and artisanal small-scale miners: From confrontation to cooperation. *Journal of World Business*, 53(1), 52-62.

Zamora, E. A. ((2016)). Value chain analysis: A brief review. *Asian Journal of Innovation and Policy*, 1-13.

Zvarivadza, T. (2018). Artisanal and Small-Scale Mining as a challenge and. *Resources Policy*, 56, 49-58.

Appendix
Appendix(A) Research Instrument

Participants	Proposal/Sub problem	Research Question	Research Instrument	Reserch Method
Fianance/Community Engagement Manager	Identifying Secondary Stakeholder	What do you consider stakeholders in the mining community	Questionnaire, Literature Review	Qaulitative
Fianance/Community Engagement Manager	Identifying Secondary Stakeholder	How do you categorise illegal Miners	Questionnaire, Literature Review	Qaulitative
Fianance/Community Engagement Manager	Identifying Secondary Stakeholder	How do you categorise ASM	Questionnaire, Literature Review	Qaulitative
Fianance/Community Engagement Manager	Identifying Secondary Stakeholder/ Impact of sustainable development using mining value chain	How do you develop CSR/sustainable development initiatives	Questionnaire, Literature Review	Qaulitative
Fianance/Community Engagement Manager	Identifying Secondary Stakeholder/ Impact of sustainable development using mining value chain	How do you determine stakholders and beneficiaries of CSR/sustainable development initiatives	Questionnaire, Literature Review	Qaulitative
Fianance/Community Engagement Manager	Impact of sustainable development using mining value chain	What is the budget of CSR project/sustainable development initiaves as % of total direct cost	Questionnaire, Literature Review	Qaulitative
Fianance/Community Engagement Manager	Impact of sustainable development using mining value chain	How do you measure success for CSR/sustaibale development initiatives	Questionnaire, Literature Review	Qaulitative
Fianance/Community Engagement Manager	Identifying Secondary Stakeholder/ Impact of sustainable development using mining value chain	How do you measure cost impact of illegal mining	Document Analysis,Literature Review	Qualitative and Qauntitative
Fianance/Community Engagement Manager	Impact of sustainable development using mining value chain	How do you measure revenue impact of illegal mining	Document Analysis,Literature Review	Qualitative and Qauntitative
Secondary Data	Impact of sustainable development using mining value chain	Cost data on CSR/Sustainable development initiatives	Document Analysis,Literature Review	Qaulitative
Secondary Data	Identifying Secondary Stakeholder/ Impact of sustainable development using mining value chain	Impact of Illegal mining on gold mining firms	Document Analysis,Literature Review	Qualitative and Qauntitative

Appendix(B) Written and Informed Consent Form

Research Title	**Determining the consequence of socio-economic sustainable development initiatives on gold mining organizations in Africa**

Consent Form

I, Prempeh Kwame, agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following:

(Please circle the relevant options below).

I agree that my participation will remain anonymous.	Yes
I agree that my participation will remain anonymous.	Yes
I agree that the information I provide may be used in an anonymized format after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.	Yes

..... (signature)
Prempeh Kwame
17-Sep-24

..... (signature)
Kabelo Madubane (name of person seeking consent)
16 September 2024 (date)

Demographic Questionnare

Thank you for taking the time to participate in this study.
To help us understand the background of the participants involved, I kindly request you to complete the following demographic questionnaire. Your responses will be kept completely confidential and used solely for research purposes.

Position/Title	Socio Economic Development -
Department	Sustainability
Industry/Sector	Mining
Country	Ghana

To implement sustainable development initiatives considering all stakeholders, it is crucial to comprehend how secondary stakeholders affect gold mining firms, using secondary stakeholder theory and mining value chain. This study will add to the body of knowledge regarding stakeholder management, CSI, Social License to Operate and offering insightful information to gold mining firms's Life of Mine Strategic Plans.