Community Engagement and Social Licence to Operate the Ewoyaa Lithium Mining Project, Ghana

Yaw Asamoah[1]

[1]Department of Geography Education, University of Education, Winneba, Ghana

Email: yasamoah@uew.edu.gh

Abstract

The global push for renewable energy technologies has intensified lithium demand, positioning Ghana's Ewoyaa Lithium Mining Project (ELMP) at the forefront of a lithium extraction hub. Whereas attention is often paid to the socio-economic and environmental impacts of such projects on local communities, the question of how traditional leaders of such indigenous communities permit mining companies into their space for extractive activities remains underexplored in Ghana. This study sought to understand how Atlantic Lithium Ltd. gained social acceptance to undertake the ELMP through the lens of the Social Licence to Operate theory. Using a qualitative case study design, the research purposively engaged 11 participants – traditional leaders, youth, women, and committee representatives. Strict ethical traditional community protocols were adhered to for data collection. Through group interviews, data were sourced and thematically analysed after transcription. Findings revealed that trust reposed in Atlantic Lithium Ltd. by community leaders has given the Company a social licence to operate the ELMP. Though community engagement was largely consultative rather than participatory, it was deemed to be of high-quality and procedurally fair. The community was optimistic about socio-economic impacts, but was sceptical about environmental concerns. The study recommends that the Government and the UN press upon mining multinationals to ensure that communities are participatorily engaged in key decision-making, regarding mineral resource extractions. Again, mining companies are mandated to comply with indigenous knowledge systems for ecological resource management purposes. Mining companies and local communities are to design workable policy documents to give pre-eminence to indigenes for recruitment into the mining companies.

Keywords: Community Engagement, Lithium Mining, Social Licence to Operate, Trust, Ewoyaa, Environmental Concerns.

1   Introduction

The global transition to renewable energy technologies has significantly increased the demand for lithium, a critical component in the production of lithium-ion batteries for electric vehicles (EVs) and energy storage systems (International Energy Agency [IEA], 2005). For instance, EVs alone accounted for 80% of lithium-ion battery demand in 2023, and it is estimated that this figure is expected to quadruple by 2030 due to the expected acceleration in the demand for EVs globally (Hartley et al., 2025). Specifically, according to Kaunda (2020), it is estimated that the demand for lithium-ion batteries will reach 2.2 million tonnes by 2030. This surge in demand has intensified mining activities in resource-rich regions, particularly in developing countries (IEA, 2021) like Ghana, where lithium deposits have been identified at Ewoyaa in the Central Region (Atlantic Lithium Ltd., n.d). As at July 2024, the Ewoyaa Lithium Mining Project was reaffirmed as one of the leading hard rock lithium projects in the world, with a Mineral Resource Estimate of 36.8Mt at 1.24% Li 2O Resource (Atlantic Lithium Ltd., 2024). While lithium mining presents opportunities for economic growth and technological advancement, it also raises critical questions about its socio-economic and environmental impacts on local communities.

This perhaps prompted O'Faircheallaigh and Corbett, (2005) to quiz "Can Ghana's lithium boom avoid the 'gold curse'?" In Ghana, where mining has historically been a major contributor to the national economy (Ennin & Wiafe, 2023; Okyere et al., 2021), like in similar populations, the extraction of lithium introduces both promise and challenges for residents, particularly in terms of community engagement, equitable benefit-sharing, and environmental sustainability (Canelas & Carvalho, 2023; Amoah & Eweje, 2022; Graham et al, 2021; Marchegiani et al, 2019). In the view of Amoah and Eweje (2022), the practice of environmental sustainability by multinational mining companies is purely based on regulatory compliance and corporate environmental responsibility, which are hinged on perceived ethical obligation. Nevertheless, in several jurisdictions in developing countries, such laws are usually not enforced.

Community engagement is a cornerstone of sustainable mining practices, as it ensures that the interests and expectations of local populations are integrated into the planning and implementation of mining projects (Zembe & Barnes, 2023; Prno et al., 2021; Owen & Kemp, 2013). In the context of Ewoyaa, the granting of a lithium mining licence to Atlantic Lithium has sparked discussions about the extent to which the community has been involved in decision-making processes and how their socio-economic expectations are being addressed. Studies have shown that effective community engagement can mitigate conflicts, foster trust, and ensure that mining

projects contribute to local development (Owen & Kemp, 2013). However, in many cases, communities in resource-rich regions are often excluded from meaningful participation, leading to dissatisfaction, resistance, and long-term socio-economic disparities (Jani et al., 2024; Poncian, 2021; Bebbington et al., 2008).

The role of traditional leaders and local governance structures in mediating mining activities cannot be overstated. In Ghana, traditional leaders often serve as intermediaries between mining companies, government agencies, and local communities, playing a critical role in negotiating benefits and addressing grievances (Tenkorang, 2023). In Ewoyaa, traditional leaders, alongside structures such as the Consultative Negotiation Committee (CNC) and the Community Consultative Committee (CCC), have been instrumental in facilitating dialogue and ensuring that community voices are heard. However, challenges remain, particularly in ensuring transparency in revenue-sharing agreements and addressing environmental concerns associated with mining activities (Opanyin, personal communication, May 18, 2024).

Socio-economic expectations in mining communities often revolve around job creation, infrastructure development, and improved livelihoods. In Ewoyaa, community members have expressed optimism about the potential for lithium mining to bring economic benefits, such as employment opportunities and investments in local infrastructure. However, there is also a question about whether these benefits will be equitably distributed and whether the project will lead to long-term sustainable development. Historical experiences with mining in Ghana have shown that while mining projects can generate significant revenue, the benefits often fail to trickle down to local communities, exacerbating poverty and inequality (Benshaul-Tolonen et al., 2019; Hilson & Potter, 2005). For instance, in using Afrobarometer survey data, Siachiwena (2025) queried whether Ghanaian citizens believe the benefits of mining, such as jobs and revenues, outweigh negative impacts like pollution and deforestation. The study found just few citizens believe that the benefits of mining outweigh the costs. The study further mentioned that citizen of host communities most often, experience high poverty, environmental degradation, and the disruption of traditional livelihoods like farming. Similarly, Asamoah et al. (2013) reported that residents of Tarkwa-Nsuaem Municipality of Ghana were further marginalized as a result of mining activities in their communities which made it difficult for them in accessing potable drinking water, fertile agricultural lands, as well as their inability to come out of poverty, largely due to the fact that their livelihoods were taken away from them.

Much as it is important to highlight the complex interplay between community engagement, socio-economic expectations, and environmental sustainability in relation to the Ewoyaa Lithium Mining Project, it is also imperative to understand the processes through which Atlantic Lithium came to get the social acceptance to operate in the mining enclave at Ewoyaa. As Ghana positions itself to become a key player in the global lithium market, it is imperative to develop a total understanding of how to prioritise the interests of local communities and respect them in mining operations. This study seeks to contribute to this discourse by exploring the perspectives of traditional leaders or community leaders at Ewoyaa, with the aim of informing policies and practices that promote sustainable and equitable mining operations.

2   Literature review

The mining of lithium has gained significant scholarly attention due to its central role in the global transition to low-carbon energy technologies, particularly batteries for electric vehicles and renewable energy storage (Calderon et al., 2024; Watari et al., 2019). Research highlights both the strategic importance of lithium and the socio-environmental complexities associated with its extraction. According to Vikström et al. (2013), lithium demand is projected to rise sharply, intensifying the pressure on known reserves, most of which are concentrated in the "Lithium Triangle" of Argentina, Bolivia, and Chile. Although not an official or geologically established term yet, based on current mining activity, reserves, and exploration potential, it is not out of place to term Zimbabwe, the Democratic Republic of Congo, and Namibia as Africa's "Lithium Triangle". There is also mention of Mali, Ghana, and Ethiopia for their possession of critical minerals like lithium in commercial quantities (Boafo et al., 2024).

2.1   Environmental and Socio-Economic Impacts of Mining

But what is the big issue here? Lithium deposits and exploration have sparked conversations and controversies. Scholars emphasise the environmental risks of lithium brine extraction, including water depletion and pollution, ecosystem disruption, and increased carbon emission (Kaunda, 2020; Agusdinata et al., 2018). Additionally, studies by Marchegiani et al. (2020), Dorn et al., (2022), and Lunde-Seefeldt (2022), point to recurring tensions between lithium mining companies and indigenous communities, often stemming from inadequate consultation and benefit-sharing mechanisms. Recent literature calls for more sustainable and ethically governed lithium supply chains that integrate social justice, environmental safeguards, and circular economy principles (Petavratzi et al, 2022; Sonter et al., 2020). As lithium mining continues to expand, interdisciplinary research is crucial to balance global energy goals with local sustainability and equity concerns.

The socio-economic effects of mining in developing countries are complex and often paradoxical. While mining projects bring infrastructure, job creation, and revenue, they also pose risks such as displacement, environmental degradation, and inequality (Magidi & Hlungwani, 2023; Amoah & Eweje, 2022; Nguyen et al., 2018). For instance, Nguyen et al. (2018) reveals how mining has increased job creation, decreased poverty rates, enhanced infrastructure and ensured social development in the Quang Nam Province of Vietnam. The authors went further to discredit the gains with the adverse effects such as environmental degradation (e.g., deforestation, water pollution, etc.), increased criminal activity and drug addiction from the same mining activities. In a similar vein, Dorn et al., (2022a) narrate the socio-economic progress and sustainability of Argentina since the discovery and mining of lithium in the early 2000s. This study did not conceal the otherwise negative social and economic impacts that the mining activities have brought to the lithium mining areas of Argentina and Chile. Similar assertions of negative impacts of mining on social, economic, and environmental fibres in Argentina have been shared by Marchegiani et al. (2019). Also, according to Hilson and Potter (2005b), mining rarely meets community expectations for long-term economic transformation due to limited local hiring and weak linkages with other sectors. Moreover, research by Bebbington et al., (2008) highlights how the influx of capital and external actors can disrupt local economies and social cohesion. These challenges are compounded by regulatory weaknesses and a lack of accountability mechanisms, which often leave communities disempowered in shaping the development agenda driven by extractive interests.

2.2 Community Engagement in Mining

Community engagement has emerged as a cornerstone of sustainable mining practices, particularly in large-scale operations that impact local livelihoods. It offers an opportunity for dialogue between managers of resource extraction companies and communities that are impacted by the operations of the former. Owen and Kemp (2013), argue that genuine, early-stage engagement fosters social legitimacy and reduces conflict between mining companies and host communities. Community engagement is not merely a consultation exercise, but a continuous participatory process that builds trust and aligns mining objectives with community priorities (Prno et al., 2021; Zembe & Barnes, 2023; Ansu-Mensah et al., 2021). According to Prno et al. (2021) and Measham and Fleming (2013), community engagement is considered as a formidable vehicle for achieving a social licence from communities where extractive operations are undertaken. However, empirical evidence suggests that many mining operations still adopt tokenistic approaches (Owen & Kemp, 2013), often driven more by regulatory compliance than by a sincere effort to empower local voices.

The literature emphasises the importance of transparent communication, inclusive planning, and culturally appropriate strategies for engagement to mitigate opposition and enhance project outcomes. In this vein, mining corporations are expected to prioritize the rights and need of indigenous communities as enshrined in the UN Declaration on the Rights of Indigenous Peoples which empowers indigenous peoples to have the right to participate in decision-making in matters or projects which would directly affect their rights and livelihood (United Nations, General Assembly, 2007), as well as to make any engagement meaningful to the locals (International Council on Mining and Metals [ICMM], 2024). According to the International Council on Mining and Metals (ICMM), principle of meaningful participation advocates for indigenous peoples to be directly involved in any mineral development projects on their traditional lands. They are to be given the free role to directly shape the way in which environmental issues and impacts are identified and defined, and the manner in which such issues are addressed over the project life cycle (O'Faircheallaigh & Corbett, 2005)

2.3 Traditional Leadership and Resource Governance

Traditional leadership structures, the world over, remain influential in the governance of natural resources, especially in rural and peri-urban areas where formal state presence may be minimal. Thus, they act as intermediaries between mining companies and communities, negotiating access to land and mediating disputes (O'Faircheallaigh & Corbett, 2005). Their roles, however, are not without controversy. In the views of Ubink (2007) and Pickering (2024), chiefs may become co-opted by mining interests, leading to elite capture and internal divisions within communities. Nonetheless, where governance systems are hybridised, integrating traditional authority with democratic accountability, there is potential for more responsive and culturally rooted resource governance models. The literature thus advocates for formal recognition of traditional authorities within national mining frameworks, coupled with oversight to ensure community interests are safeguarded (Ubink & Pickering, 2024).

2.4 Theoretical Framework

This study is grounded on the theory of Social Licence to Operate (SLO). The theory, believed to have originated in the fifth century BC (Keeley, 1995), was attributed to Jim Cooney (Stuart et al., 2023) and popularised in the late 1990s (Breakey et al., 2025; Murrey et al., 2023). The concept is in response to a United Nations initiative for industries to secure free, prior, and informed consent (FPIC) from the indigenous people from whose communities they operate (Wilburn & Wilburn, 2011). SLO is an industry-based "mining" concept which requires business corporations, aside from getting formal consent from governments, need informal and community-based

forms of clearance and acceptance to operate (Murrey et al., 2023; Cooney, 2017; Dare et al., 2011a). From the point of view of The Ethical Funds Company (2009), SLO is purported as the "outside of the government or legally-granted right to operate a business. It is seen as a social contract which requires compliance with social expectations and norms (Dare et al., 2011). A company can only gain a Social Licence to Operate through the broad acceptance of its activities by society or the local community. Without this approval, a business may not be able to carry on its activities without incurring serious delays and costs. Whereas this is noted, one is not to lose sight of the fact that SLO is a continuous engagement process (Leeuwerik et al., 2021).

When applied in mining, SLO highlights the inadequacy of mining companies formally obtaining a government licence to operate, while attempt is shifted towards complying with what societies accept and approve. This acceptance and approval are preceded by the trust the indigenous community has in the mining company (Moffat et al., 2016). Specifically, Ayuk et al. (2016) assert that in the mining sector, the SLO could be expressed as any means "to secure the acceptance of mining activities by local communities and stakeholders, in order to build public trust in their activities and prevent social conflict". Similarly, Prno et al. (2021) and Benshaul-Tolonen et al., (2019) refer to it as the ongoing acceptance and approval of a mining development by local community members and other stakeholders that can affect its profitability.

In operationalising SLO, this study was guided by Moffat and Zhang's (2014) social licence to operate pathway model, which explains how mining organisations receive acceptance from indigenous communities (localised impact) (Moffat et al., 2016) to operate (Figure 1). As already indicated, central to acceptance or approval to operate is trust. Thus, trust in the mining company is the prime predictor of community acceptance of its operation (Moffat & Zhang, 2014). Though trust has variously been defined as, for instance, having confidence that the behaviour of an outgroup will match expectations of the trust holder (Cook, 2001), in the current study, it is suggested to mean the degree to which the general public or community holds a collective trust orientation toward a mining organisation (Poppo & Schepker, 2021), and in this case, Atlantic Lithium. It will be fair to mention that the strongest predictor of trust is built from the perspective of community members (Moffat et al., 2016).

It is crucial to consider community engagement as an important component of social licence to operate (Prno & Slocombe, 2012; Measham & Fleming, 2013), as it provides opportunities for communities and business corporations to engage in meaningful dialogue, particularly before and during the operations of the latter entity (Dare et al., 2014). Typically, two forms of community engagement exist – operational engagement and strategic engagement (Dare et al., 2014). In the case of the former,

extractive corporations engage communities (usually, a small number of people) that are likely to be directly impacted by the extractive activities in their day-to-day operational activities. The latter is where the engagement is between the business corporation and stakeholders who are not directly impacted, but have an interest in the activities (Dare et al., 2011b). Positive and high-quality community contact (community engagement) between mining companies and community members is key to trust building, thereby increasing the likelihood of social licence being granted (Moffat et al., 2016).

Trust is also preceded by the extent to which mining companies are willing to manage and mitigate the impacts of their operations (on social infrastructure). Though impacts could be positive (employment generation, development of social amenities/infrastructure, etc.), and negative (destruction of forests, pollution, erosion of cultures, etc.) for mining communities (Rahmawati & Alhaqi, 2025; Tella & Danjibo, 2024; Asamoah et al, 2013), the former are rare in several developing countries, and the latter are often highlighted. In this present study, the perceived impact of the operation of Atlantic Lithium was predicated on the social, cultural, economic, and environmental expectations or concerns of the residents of Ewoyaa. Specifically, where the overall impact is worse than expected and agreed, it will presumably erode trust in the mining company, and, for that matter, lead to disapproval to operate (Dzage et al., 2024; Moffat & Zhang, 2014).

The last component of the predictors of trust, according to Prno et al., (2021); Magidi & Hlungwani, (2023) and Moffat and Zhang (2014) is procedural fairness, which is measured by how community members in mining areas perceive the "procedures through which mining companies' decisions are made" (p. 63). Thus, do community members perceive that they have a reasonable voice in the decision-making process (Besley, 2010; Tyler, 2014), or are they rather consultative participants? This presupposes that when members of the community perceive that their involvement in decision-making processes is reasonable, and that decision makers (manager of the mining corporation and government) treat them in a respectful manner, then the procedure is predicated to be fair (Moffat & Zhang, 2014).

Community's acceptance or rejection of the organisation's operation is variedly expressed. In rejecting or denying licence to operate, communities often engage in direct action and mobilization (e.g. public protest and demonstrations, civil disobedience, etc.), political and legal challenges (challenging regulations, withdrawing political support, etc.), and subtle and direct resistance (division within community, etc.). to register their displeasure against state agencies and corporations for operations they deem detrimental. On the other hand, cooperation and

collaboration (through active participation in consultation, etc.), public display of support (i.e. public endorsements, political support, etc.), and consistent positive interaction between communities and project proponents are strong indicators of acceptance (Glückler & Gutiérrez, 2025; Maillé, et al., 2023; Teo & Loosemore, 2017).

Glückler and Gutiérrez (2025) were, however, quick to add that the common misconception that the absence of conflict connotes the presence of a social licence ought to be discounted, as it has been found to be one of the two major flaws of the theory - SLO.
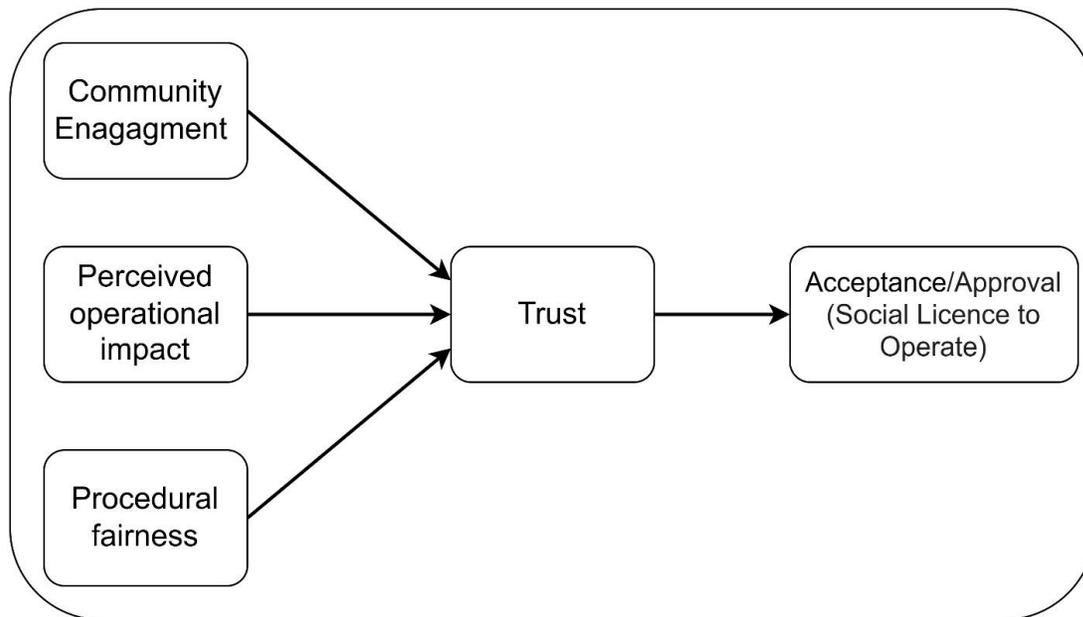

Figure 1: The pathway to Social Licence to Operate (SLO)
Source: Adapted from Moffat et al. (2016).

3 Methodology

3.1 Study area

This study specifically considered lithium mining at Ewoyaa in the Mfantseman Municipality, in the Central Region of Ghana, where Atlantic Lithium has been granted a mining licence (see Figure 2) which covers a land area of about $8km^2$ (NS Energy, 2024).
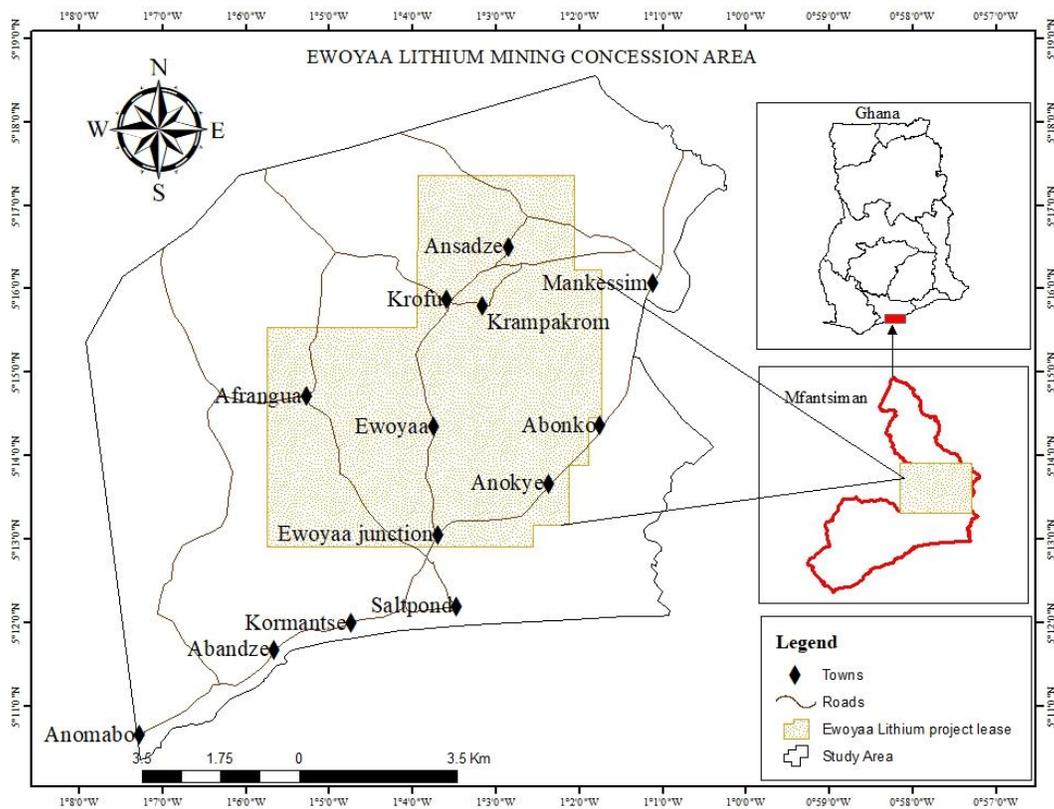
Figure 2: Map of Mfantseman Municipality showing Ewoyaa Lithium Mining Concession Area.
Source: Author's Construct, 2025.

Mfantseman Municipality lies between 5° to 5°20' north of the equator and longitudes 0°44' to 1°11' west of the Greenwich Meridian. Relatively, it is located east of Cape Coast, the regional capital of the Central Region, to the north-east by Ajumako/Enyan/Essiam District, Ekumfi District to the east, the Gulf of Guinea to the South and to the west by Abura/Asebu/Kwamankese District Assembly.

According to the 2024 projected population, based on the 2021 Population and Housing Census, the total population of the Municipality stands at 182,600 comprising of 93,785 (51.36%) females and 88,815 (48.64%) males (Mfansteman Municipal Assembly, 2024). The Municipality is largely an agrarian economy with 27% of the economically active population employed in mainstream agriculture - farming (at Ewoyaa, Baifikrom, Abonko, etc.) and fishing (at Anomabo, Saltpond, Biriwa, Abandze, Kormantse, etc.). Aside from agriculture, wholesale/retail trading activities in the markets at Anomabo, Biriwa, Yamoransa, and principally at Mankessim, make up about 23.7% of the municipality's economy. The people of

Mfantseman are largely Fantis (as the dominant ethnic group) (Atlantic Lithium Company Ltd., 2023; Mfantseman Municipal Assembly, 2020).

Ewoyaa, with a population of approximately 580 people from 108 households, is significant because it is home to Ghana's first large-scale lithium mining project, making it a suitable site for investigating community engagement strategies and socio-economic expectations in the emerging lithium sector. The area is characterised by a mix of traditional governance structures, local businesses, and agrarian livelihoods, which are likely to be affected by mining activities (Mfantseman Municipal Assembly, 2020).

The study adopted a qualitative research approach to arrive at its objectives. Thus, a case study design was employed to provide an in-depth understanding of the perspectives of the local community on the subject of socio-economic expectations of lithium mining at Ewoyaa. The qualitative approach was chosen because it allowed for a detailed exploration of lived experiences, perceptions, and concerns, which are crucial for understanding the dynamics of community engagement and socio-economic expectations (Creswell, 2014; Odame, 2022). It also focused on traditional leaders who are the gatekeepers of the town and represent the views of the people.

Traditionally, one is unable to access the community without having completed the needed cultural protocols of seeking the permission of the traditional rulers (Tindana et al., 2011). Five (5) traditional leaders who have well been engaged in discussion with Atlantic Lithium Ltd. regarding the lithium project, as well as custodians of the traditions, customs, and the Ewoyaa lands, participated in the study. Whereas it would have sounded prudent to specify the positions of these traditional leaders, ethical reasons of privacy and anonymity had to be upheld. Besides these gatekeepers, four (4) members of the community represented youth and women groups, and two (2) other representatives of the Consultative Negotiation Committee (CNC). Though the traditional leaders were purposively sampled, those who were invited to participate were determined by the leader of Ewoyaa themselves to reflect traditional norms. Besides them, the other non-traditional representatives were involved because of their firsthand knowledge and experience of the mining activities in the community. Again, these were also done in collaboration with the traditional leaders. In all, a total of 11 participants were selected for the study.

The study utilised group interviews as the primary technique to collect data from participants. Specifically, the traditional protocol required the researcher to conduct a group interview for the 5 traditional leaders, the leaders of the youth and women groups, as well as the representatives of the CNC. Interviews were conducted at the

Chief's Palace, and lasted between 47 minutes and 108 minutes. With informed consent sought, all interviews were audio recorded with a professional audio recorder. The recorded interviews were transcribed and analysed. Inductive thematic analysis was employed to analyse the data. Thus, the data was manually analysed. Themes were directly drawn from the responses provided by participants to reflect their knowledge of the lithium mining project, and their experiences of the community engagement processes between them, the government, and Atlantic Lithium. In doing so, the researcher carefully read through the transcripts multiple times to identify recurring trends, comments, and emerging issues from the participants' own narratives. In line with the tenets of inductive coding, recurring keywords were identified and subsequently grouped them into codes. Ultimately, the codes were clustered and then reorganised into themes - community engagement, trust, socio-economic impacts, and environmental concerns.

The study adhered to ethical research guidelines to ensure the protection of participants' rights and confidentiality. Strict community and Fanti traditional protocols were adhered to, even though some sections were slightly relaxed for the research. For instance, the researcher was exempted from presenting traditional drinks before seeing the chief, or even entering the palace. The researcher constant contact with a community liaison who, at any point in time, advised on a community and traditional protocols to follow. Additionally, participants were informed about the study's objectives and provided written consent before participation. Anonymity was maintained by removing personal identifiers from the data.

4 Results

This section presents the findings of the study. It draws insights from traditional leaders, youth, women, and committee representatives in Ewoyaa, the central community for the Atlantic Lithium mining project. The results are organised thematically and interpreted through the lens of the Social Licence to Operate (SLO) framework, which emphasises trust, perceived operational impacts, procedural fairness, and community engagement as key predictors of community acceptance or rejection of mining projects. By structuring the analysis around these dimensions, it presents a report which does not only reveals the lived experiences and expectations of the community, but also situates them within a theoretical model that highlights the conditions under which Atlantic Lithium secured legitimacy from Ewoyaa community.

It is, however, important to first describe the demographic characteristics of the respondents, as well as to respond to the question, "Why Ewoyaa project?" from the perspective of the study participants.

4.1 Demographic characteristics of participants

This study was male dominated in terms of participation. Of the 11 participants, only two were females who represented the women's group. The average age of these female participants was 41 years. Both were married and had farming as their main economic activity, even though they also supported that with petty trading. Per their levels of education, both had attained basic levels of formal education up to the Junior Secondary School (JSS).

The male participants' ages ranged widely, with most of them in mid to late adulthood, 50s to 80s. Whereas few were widowed, the others were married and staying with their spouses in the Ewoyaa community. With the exception of the members of the CNC who had considerable levels of formal education up to the tertiary levels, and are in private business and civil service, the others had either no formal education or basic levels of up to Primary Six (P6). These were all farmers who were into purely subsistence food crop farming.

4.2 Why Ewoyaa Project?

There are two known sites of lithium deposits in Ghana's Central Region – the Egyasimanku and Ewoyaa hills. On October 19, 2023, the Government of Ghana granted Barari DV Ghana Limited, a subsidiary of Atlantic Lithium Limited, a fifteen-year (15) lease to commence mining of lithium at Ewoyaa in the Mfantseman Municipality (Soulé, Butu, & Amoah-Darkwah, 2025). Traditionally, the Ewoyaa Lithium Mining Project is located on lands that belong to 12 communities in the Mfantseman Municipality. The communities include Ewoyaa, Anokye, Krampakrom, Abonko, Krofu, Afrangua, Ansadze, Amanse-Nkusukum, Nankesedo, Bakado, Eguabado, and Mankessim. Out of these 12 communities, eight settlements are directly affected, or are going to be affected by the operations of the mining company. The remaining four communities did not have settlements within the mining lease, but rather have their traditional lands located within the lease.

In all these, Ewoyaa seem to be the core community at the centre of the operation of the mining company. Thus, though other communities are affected by the exploration process, it is perceived that Ewoyaa's contribution in terms of lands affected and their reception of the mining company earned them the name "Ewoyaa Project". In the opinion of a community gatekeeper (traditional leader):

> *"...there are 12 communities on whose land the mining activity is going to take place, but you will realise that only 8 are going to be directly affected. For the others, their traditional lands are here, but they do not stay here...Ewoyaa is the centre of all the communities. The reason for the name Ewoyaa [Project] is that the geologist who discovered the ore was well received by us...so he decided to name it Ewoyaa [Project]. The*

> *geologist has the right to name it, and so he named it the Ewoyaa Project."*

4.3 Operationalisation of Social Licence to Operate the Ewoyaa Lithium Mining Project

The findings reveal a complex interplay of optimism, scepticism, and negotiation as participants anticipated both opportunities and risks from the Ewoyaa Lithium Mining Project. On the one hand, they expressed their hopes for employment, infrastructure, and livelihood transformation, and recognised the company's efforts to observe cultural protocols and maintain communication. Yet concerns about transparency, environmental degradation, and other negative fallouts cast doubts on these expectations. These contradictions, according to this study, are best understood within the SLO framework, which underscores that acceptance is shaped by trust, fairness, and the perceived balance between benefits and harms.

The sections, therefore, examine the results across these thematic areas of community engagement, trust (and/or transparency) and procedural fairness, socio-economic and environmental impacts, and cultural ethics, and how these themes collectively inform the Ewoyaa community's willingness to grant or withhold a social licence to operate the Ewoyaa Lithium Mining Project by Atlantic Lithium.

4.3.1 Community Engagement Processes

The Ewoyaa Lithium Mining Project presents a revealing case study of community engagement in natural resource governance, particularly within the Ghanaian socio-political context. Traditional leaders in Ewoyaa were central to the engagement process, acting as gatekeepers to the community and mediators between residents and Atlantic Lithium. They have a critical role to play since their community is to be directly impacted by the activities of the mining operations.

In an interview with the traditional authority in the town, it was revealed that the government gave the needed respect to the communities by consulting them about the discovery and prospecting process earlier in 2016. According to them, a government official came to the town to inform them about the mineral prospects of the town and the possibility of mining in their town. That was an exciting moment for the whole community, as expressed. It was followed by a visit by Atlantic Lithium, which indicated that they had to go for an exploration licence to allow them to officially conduct any exploration in the communities. A series of baseline activities was conducted by the company within this period.

> *"There were rumours about mineral ore in our soil as far back as 2007…About 7 years ago, they came for permission to do mining here,*

and then 3 years ago, they came back to tell us that there is something in our land. So, they said that they have to go for an exploration licence. Before the licence, they came here to do a baseline survey, which tells about things that are here before they can negotiate" [A traditional leader]

The study found that the community engagement was adequately done at several levels, where traditional leaders, as well as members of the Consultative Negotiation Committee, met with both state officials and Atlantic Lithium Ltd. to discuss the mining activities in their community. Similar engagements took place between the state officials and Atlantic Lithium Ltd. on one hand, and the youth and women's group in the community on the other hand. While it is worthy to note that such meetings have been taking place, it has always been between community leaders or traditional authorities, committee members, and youth and women group leaders. They, in turn, also have meetings with their entire respective communities and group members.

"For meetings, we have had several of them. Almost every day since they announced this thing [lithium], they are always calling us for meetings. We go to Accra most of the time to meet with the minister [in charge of mines], and with the company too. But several times, they have been coming here. They come to meet us to have discussions about the lithium they have found and how their operations are going." [A traditional leader]

"The elders in the communities came together to form the committee [Consultative Negotiation Committee]. We are representatives of all the 12 communities within the catchment areas of the mining operations. The committee [CNC] is composed of 3 representatives of farmers, landowners, and chiefs. There are also 4 representatives from all 12 communities. The company also has a representative, so that whatever is discussed, they are also able to take it to their leadership. I will say that, at every step of the way, the Committee is consulted to know whatever is going on" [Committee rep, CNC]

The youth and women representatives similarly shared this assertion of the engagement process; these engagements, to a greater extent, afforded the communities opportunities for adequate information and to deepen the understanding of the communities about lithium mining operations and their impacts.

4.3.2 Procedural Fairness

Closely linked to the community engagement process, according to this study, was the perceive fairness of the procedure. Thus, participants praised the level of their involvement in the whole process from the time the announcement was made about the lithium deposit in the catchment area. Varied views were expressed among participants regarding the communities' level of involvement, with some indicating their dissatisfaction with the engagement process, and others partially disagreeing with the view that the process has been unfair.

On the part of those who were dissatisfied with the procedural fairness, they found the engagement consultative, rather than participatory. Thus, while the leadership and communities were informed and consulted, they were not always empowered to influence decisions meaningfully, as they almost always gave a 'rubber-stamp approval. Though there was the establishment of intermediary bodies such as the CNC and CCC to suggest a deliberate effort to institutionalise engagement, there was lingering concern over the depth and openness of information-sharing. Community leaders noted that although key decisions are often communicated, they expressed that it was not always disclosed in sufficient detail, particularly those related to financial agreements, environmental assessments, and timelines of implementations. This has led to perceptions of partial transparency, where engagement is perceived to be present, but does not translate into full accountability. A traditional leader asserted this notion during the group interview. He mentioned that:

> *"The very first time they [Atlantic Lithium] came here, they said many things that they are going to do for us, but you can see that most of them are not fulfilled. They have marked our houses, and even destroyed some people's farms, but the money they gave them is not what they promised. When you complain, the committee, too, will be telling you something different."*

In another tone, a representative of the youth group blurted that:

> *"From the time they came to mark out houses and cleared our farms until now, they have still not come to start the project. It is like you have to wait every day for them, but they never come. So now, we do not know what is keeping them away from coming to start the project so that we know what to do…every time you will see them [Atlantic Lithium] and the EPA driving their cars up and down, yet, there is nothing to show that they are starting today or tomorrow."*

The issue of revenue-sharing was even more contentious. Traditional leaders voiced apprehensions about how royalties and compensations will be allocated, with some

expressing fear that political or elite interests may capture benefits. This concern is amplified by past experiences with gold mining projects in Ghana, where promised returns often failed to materialise at the community level. As a result, distrust persists, even when formal structures for engagement exist.

> *"Ours is yet to start, but we do not want to get to the levels that have happened in Tarkwa and Obuasi, and all those areas. What has to be given to us must be given to us, and not the politicians to collect everything, meanwhile it is our land that is taken and destroyed."* [A traditional leader]

These views were contested and contrasted by another community elder and a key informant who asserted that, at the time of the data collection, Atlantic Lithium and the government had not jumped the process as regular consultations or engagements were made. He went ahead to indicate that the company have done well to put in place measures to resolve any future occurrences of disputes when they arise. Again, meetings have been organised to respond to most of the issues raised as concerns. To these, he concluded that so far, the procedures and the processes of engagements have been successful and fair. His assertion is indicated below:

> *"There are some established mechanisms for grievance resolution – they are there to solve the problems on a community basis. The company also has the right to question land owners in case of overlaps. There is also a dispute resolution committee within the CNC solely meant for issues that might come up. These, including the Community Consultative Committee (CCC), will make sure the operations of the company go on while the community also goes on, and to have our fair share of what is due to us. The CNC is mandated to oversee the payments of compensation...so if you ask me, I will say the process has been successful"*

4.3.3   Perceived Operational Impacts

As Ghana positions itself as an emerging player in the global lithium market, local communities such as Ewoyaa are increasingly attentive to the anticipated economic benefits, particularly in a context historically marked by mixed outcomes from resource extraction in other parts of the country. The promise of socio-economic transformation has become a central narrative in the Ewoyaa community's perception of the lithium mining project. The study's findings emphasise these socio-economic expectations, as well as environmental concerns among community members. The expectations and concerns, which form their perceived operational impacts in granting acceptance or rejection, are both aspirational and cautious, shaped by historical experiences and current realities. Issues discussed here include

job creation, infrastructure development, livelihood transformations, economic benefits, environmental concerns, and other perceived socio-cultural impacts.

4.3.3.1   Job creation

The most immediate expectation voiced by participants was employment. Community members anticipate that the Ewoyaa mining project will create direct job opportunities for the youth, thereby reducing unemployment and out-migration. Traditional leaders emphasised that the project should offer more than just temporary or casual labour; it should include skills training, technical roles, and long-term career pathways. A traditional leader voiced this view in the group interview. According to him:

> *"We have told them [Atlantic Lithium] that our people or children should be employed from within the catchment areas affected [by the mining operations]. By law, all unskilled labour should be employed from within the community. It has also been stated in their scooping report that they will go by that. However, we all know that unskilled labour is not all that prolific, so they should train some of our people even at the management level…they are yet to respond. Nevertheless, it is also up to us to groom our young ones, so that Ewoyaafo [citizens of Ewoyaa] will also be versatile in mining in the future."*

From the perspectives of the youth, they expect nothing but to get jobs to do when the operations start. They expect to fit in from the very menial, like cleaning or gardening, up to management levels. According to them, several youths in the communities, from far and near, are gearing up to grab the opportunities that come with the mining companies. They reiterated that they have skills and capabilities as welders, masons, drivers, carpenters, etc., that could be of benefit to the company. It was revealed in the interview that the cost of rent in and around the communities has gone up since indigenes and other persons from other parts of the country have come to rent around, in anticipation of the mining operations.

> *"Do you know that as we speak, accommodation rents have gone up? Ask me why…a lot of the people who travelled out of the town, and even non-indigenes are all coming to stay here… it is because they know that when there is a mining company, there will be jobs, so they are all coming to look for some to do…this is to tell you that we are ready with all the skills. We have to get something [job] to do."* [A youth representative]

4.3.3.2 Infrastructure development

Infrastructure development was also a frequently mentioned expectation. Participants hoped the mining operations would catalyse investments in roads, schools, water supply systems, and healthcare facilities. These aspirations are grounded in the community's awareness of the infrastructural deficits that persist in the indigenous catchment communities.

> *"When you were coming, you saw that they have graded/levelled our road…so they will construct the road from the main (Accra-Cape Coast) highway to the town, and similar ones in all the communities. Per the report that they gave us, they will even build a hospital for us as part of their Corporate Social Responsibility.* [A community elder]

4.3.3.3 Economic benefits

There was the general belief that mining-induced development can help revitalise agriculture and local trading activities, which are the two dominant sectors in the Mfantseman Municipality's economy.

> *"We know that when they start mining, we can also sell to make money. Already, many people are coming around to stay here. It means we can also get our market here instead of going to Mankessim for almost everything."* [A rep, women's group]

When asked about any other expectation of economic the Mining Project in the community, the community gatekeepers were optimistic. They stated that a portion of the revenue generated from Atlantic Lithium's operations is promised to be shared among the 12 mining communities. In their view, the revenue should be shared proportionally, as the impacts of the operations will be more significant for some communities than others. However, all of these arrangements should be documented before the actual operations commence. This assertion, as expressed by a community elder in the group interview, is stated below:

> *"To be honest, our discussions have been casual because it is CCC that is meant to negotiate all these. It has not been operational, but 1% of gross revenue will be given to the communities. In the long run, our communities will be impacted, and looking at the gravity of the impact, the sharing of benefits should be proportional."*

It was also important for the study to report that, despite their hopeful outlooks, participants were also very cautiously sceptical. Particularly, traditional leaders interviewed were wary and not oblivious to the historical pattern where benefits from large-scale mining projects failed to trickle down to the local level. They mentioned cases from some gold mining areas of Ghana – Tarkwa, Obuasi, and

Kenyasi. This scepticism was reflected in comments about elite capture, unmet promises, and the marginalisation of local voices in previous projects. At this instance, participants kept using the phrase "we have seen this before" to suggest that while the community is hopeful, it is not naive about the risks of exclusion and exploitation.

> *"For us, if we get these things from the government and the mining company, we will be very happy, but I do not want us to put all our hopes on them. This is not something we have seen before. Even if we have not gone to Tarkwa or Obuasi and those areas where they mine gold, we see and hear about them on the radio and on tv, about how the communities are always complaining that they are not getting anything from the mining activities. We only hope that our committee [CNC] will do their job well"* [Community elder]

In this regard, participants expect the government to regulate the Ewoyaa Lithium Mining Project effectively by protecting community interests and providing oversight in the distribution of revenues. Simultaneously, they expect Atlantic Lithium to, on their part, operate ethically and transparently, while they avoid the pitfalls of companies that prioritise profit over human rights.

4.3.3.4 Environmental Concerns

Environmental concerns constituted a dominant theme in community responses to the Ewoyaa Lithium Mining Project. Views were expressed from two angles – trust and optimism on one side, and pessimism and fear on the other. In the former, community gatekeepers appeared to trust reports they had received from the mining company and the Environmental Protection Authority to the extent of relying on them as documents of hope and optimism. In their views, as informed by a Scoping Report issued, the mining activities will not have any direct and significant effect on community members since the actual operations will take place within the mining lease and the buffer areas. According to them, these areas are far from where they inhabit, for which reason, unaffected by whatever goes on. This perspective is expressed by a community leader who seemed to be well-informed about the report and opined that:

> *"The mining activities will take place in an area of about 20,000 hectares, including a buffer. The lease is large, but the mining operation will focus on a few areas which are not inhabited... The Scoping Report shows there are communities in the mining area that should be moved. For instance, Ewoyaa, Krampakrom are within the mining area, roughly, about half a kilometre from up the hill – all those parts are the mining area, so those there should be moved. So, if they move, the [mining] activities would not disturb anyone who goes beyond the mining area. In cases of noise, dust,*

or anything that would not endanger the people, as it is stated in the Report. Before they prepared this Report, they engaged us here at Ewoyaa…they took our suggestions, and they noted our ideas."

In fact, when the community leaders made their fears known, especially in damage to water, their vegetation and other environmental concerns, prior to the preparation of the Report, they were assured of compliance that would not endanger them in any way. Thus, the well-informed community gatekeeper continued that:

"There are some issues and conditions you cannot do away with or restrict. But they assured us, and it is stated in the Scoping Report, that they make sure the machines they will use are not old, and fumes from the machines will not be too harmful; gas suppression is another issue they will work on; and that they will use more water in an enclosed circuit. The water they will use will be recycled. I also remember they said they will leave trees around their area of work to avoid danger."

In spite of the eloquent expression shared by this gatekeeper, other traditional leaders did not shy away from sharply rebutting that the environmental implications of such mining operations usually outweigh the promised socio-economic benefits. By drawing important lessons from hindsight, the leaders were doubtful about environmental concerns ranging from the depletion of their forests, destruction of their water bodies, and the associated pollutions of all types that are borne out of similar large-scale operations.

Thus, the primary environmental concern raised by the community revolved around the degradation of land and deforestation, as the clearing of vegetation for exploration and mining infrastructure is perceived to disrupt both biodiversity and local agriculture. They expressed anxiety over the loss of arable land, which directly threatens subsistence farming and food security in the area. Also, with their knowledge of the fact that lithium mining is a water-intensive venture, community members fear the potential pollution of surface and groundwater sources, which are vital for domestic purposes. Additionally, the risk of air and noise pollution during blasting and ore transportation was frequently mentioned. Participants highlighted the cumulative effects of particulate matter on respiratory health and the broader ecosystem.

One of such assertions is expressed as:

"What mining activity does not destroy water? They are always destroying water bodies in their operational areas…some communities in the Wassa and Obuasi areas are not able to get water to drink because of

mining. We only have to press upon them to do the right thing when they start their work." [A community elder]

4.3.3.5 Cultural Protocols and Mining Ethics

The intersection of cultural values and mining ethics became one of the key issues of shaping the community's perceptions of the Ewoyaa Lithium Mining Project. For the participants, the mining endeavour is not merely an economic activity, but a more transformative intrusion within a deeply rooted cultural and spiritual landscape. As in any traditional setting like Ewoyaa, sacred sites such as ancestral groves, rivers, and shrines are integral to the spiritual identity and communal cohesion (Kleinhempel & Nicolaides, 2024; Barnwell et al., 2021). Yet it is reported in other jurisdictions that population growth, coupled with changing livelihood structures and mining-related activities, has infringed upon or risked disturbing these spaces without adequate consultation or ritual appeasement. This is particularly the case at Sidama, southwest Ethiopia (Doffana, 2019). Such actions are perceived not only as disrespectful but also as spiritually dangerous, potentially leading to communal unrest or perceived misfortunes (Doda- Doffana, 2019; Butzier & Stevenson, 2014).

Community gatekeepers at Ewoyaa anticipate a picture-perfect future where traditional norms and protocols will be duly observed, as well as sacred sites appropriately protected. These will be demanded and adhered to in order to ensure that traditional practices and customs are maintained and sustained. Thus, where sacred sites such as shrines are directly affected by the mining activities, necessary rituals will be performed to move them to their new settlements. But where they are not directly affected, they will be maintained at their current locations. For instance, sites, including cemeteries or graveyards, will not be moved, so that their dead relatives can be brought in and laid to rest with their ancestors. These assertions were expressed by traditional leaders as follows:

> *"The Scoping Report states that they will respect the traditions of the land. That is, if they are to appease the gods of the land or anything, they will do so. But on our part, whatever we have to take along with us when leaving for our new settlements to make it 'a complete community', we will take them along."*

Another also asserted:

> *The cemetery will be fenced, and anyone who dies will be brought here to be buried. With respect to our gods, we will take them to our new settlement if we see that they are threatened or going to be affected. But if not, we will leave them here and come intermittently to perform our rituals for them."*

4.3.3.6   Social impacts

The community was not ignorant of the perceived transformation in the social structures or lives that the mining operation might bring. They were of the view that some of these changes come natural because of the different calibre of people who would be visiting and staying in the community. In spite of their awareness, they were rather at sea in respect of handling such anticipated changes. They seek to adopt, if it becomes necessary, according to the participants. A youth representative mentioned:

> *"Just as you have said, things might change – our lifestyles will change because, as you may be aware, everyone wants advancement in their lives…we will know how to accommodate such changes, provided they will lead to better livelihoods. But the truth is, we do not want to see those things which will come to destroy the youth of this community."*

4.3.4   Trust

Trust (and/or transparency) emerges as a pivotal issue in any mining project (Moffat & Zhang, 20114). According to the authors, trust with local communities plays a very significant role in mining companies gaining and maintaining an SLO.

This study found some positive indicators of trust for Atlantic Lithium, with the traditional leaders, youth and women groups unanimously proving their readiness to receive the mining company at any time they were ready to start their operations. This was flowing from the fact that, according to the participants, Atlantic Lithium has made efforts to maintain regular contact and comply with cultural protocols. The presence of community liaisons and the involvement of local leadership in public meetings and negotiations have contributed to a nascent but growing sense of trust, particularly among those directly involved in these processes.

> *"They have done well…obviously, we cannot have everything exactly how we want it. As you are told, when they came, they formed a committee, and they have their people always coming around to consult with the leaders of the communities. They come around to listen to our concerns and engage the chiefs as to how to go about some things. What we hope for is that these will continue"* [A traditional leader]

Similarly, without a shred of doubt, a female representative expressed her trust in the conversations about Atlantic Lithium's proposed operation in the community, and affirmed that the process "[everything] has been fair.

4.3.5   Acceptance/rejection (Social Licence to Operate)

The study found an outright acceptance or approval for Atlantic Lithium to operate the lithium mining in the Ewoyaa enclave. Indeed, this was evident in consistent

interactions with the Company, public endorsement by traditional leaders of the Company's operations, as well as the active participation in the consultation process. This finding is supported by a recent publication in an online news portal where the chiefs reechoed that "Parliament must ratify Ewoyaa Lithium Project before year-end 2025 to improve livelihoods" (Dzivenu, 2025). In the said publication, they appealed to the government and parliament to expedite the ratification of the Ewoyaa Lithium Mining Lease. Thus, according to the Paramount Chief of the Nkusukum Traditional Area:

> *"Up to now, the ratification has not been passed, and this has left our communities – such as Ewoyaa, Amanse, Nankesedo, Anokye, Abonko, and Twafo – worried. We, the chiefs, are also extremely frustrated."*

5   Discussion

The findings from the Ewoyaa Lithium Mining Project reveal a strong association between community engagement, socio-economic expectations, and environmental concerns, which are mediated by the theory of social licence to operate (SLO). In keeping with Moffat and Zhang's (2014) framework, community acceptance of Atlantic Lithium's operations appears contingent upon trust, perceived fairness, and the tangible realisation of promised socio-economic benefits. The study demonstrates that though Ewoyaa community granted a provisional social licence grounded in cautious optimism, the acceptance remained on trust and continued engagement.

5.1   Community engagements and operational fairness

First, the study underscores that community engagement has been both proactive and incomplete. On one hand, the establishment of the Consultative Negotiation Committee (CNC) and the Community Consultative Committee (CCC) represents a deliberate effort by Atlantic Lithium and the state to institutionalise participation. This structure facilitated regular dialogue and kept traditional authorities at the centre of consultation processes, aligning with best practices in participatory governance (Owen & Kemp, 2013; Prno et al., 2021). These consultations portrayed high-quality operational engagements (operational fairness) where the Company made conscious efforts to interact with the communities on major steps taken towards their operation (Dare et al., 2014). However, as revealed in the narratives, engagement has often been consultative rather than participatory. Community leaders were informed but not empowered to influence decision-making, reflecting the broader critique of "tokenistic participation" in extractive governance across sub-Saharan Africa (Owen & Kemp, 2013; Poncian, 2021). The perception that consultations lack depth and that financial and environmental information is

selectively shared erodes procedural fairness, a key determinant of trust and social legitimacy (Besley, 2010; Tyler, 2000). This finding highlights a similar finding in some Global North communities of Northern Saskatchewan, Canada, where indigenous people's participation in resource development on their lands was found to be questionable and impaired (Brock et al., 2021). This indeed makes it clear that issues of indigenous population neglect in resource extraction decision-making are not peculiar to those developing countries in the Global South.

Much as this finding presents a direct contravention of the UN Declaration on the Rights of Indigenous Peoples (United Nations General Assembly, 2007), it also goes against the ICMM principle of meaningful participation (O'Faircheallaigh & Corbett, 2005). The most important core value, which ought to be respected, as was found in the case of the indigenous Maori community of New Zealand, is that any negotiated agreement carried out under the meaningful participation framework must make sense to the indigenous community (Ruwhiu & Carter, 2016).

5.2 Perceived operational impacts

As carried in the study, the perceived operational impacts were hinged on the social, cultural, economic and environmental outcomes that the operations of Atlantic Lithium would produce. On socio-economic expectations, the community's optimism is consistent with global findings that resource extraction is often perceived as a gateway to employment, infrastructure, and improved livelihoods (Nguyen et al., 2018; Dorn et al., 2022b). Participants in Ewoyaa expect jobs not only for unskilled labour but also for trained youth to send an important signal that mining-induced development must transcend token employment to promote skill transfer and local empowerment. This perspective aligns with the growing literature on local content policies in extractive industries, which advocate for employment that contributes to community empowerment and capacity-building (Mata & Hlaváček, 2024; Dorn et al., 2022; Marchegiani et al., 2020). In rare cases, some of these expectations are somewhat (partially) met (Dikgwatlhe & Mulenga, 2023). It is, however, common for communities to agitate over the unmet expectations as well as the detrimental effects the operations have on them (Siachiwena, 2025; Ofori, 2022; Bugri & Kumi, 2018; Asamoah et al., 2013). The expectation of proportional benefit-sharing also reveals a heightened awareness among traditional leaders regarding equity and justice in resource distribution. However, as seen in prior mining communities such as Tarkwa and Obuasi, without robust governance frameworks and community-based oversight, these expectations risk remaining unfulfilled, reinforcing cycles of disenchantment and resistance (Hilson & Garforth, 2012; Amoah & Eweje, 2022).

The environmental dimension introduces a dual discourse of reassurance and apprehension. While official reports and corporate communication have promised

minimal harm through the use of enclosed water circuits and buffer zones, many community members retain memories of environmental destruction in Ghana's gold belt. Their fears of deforestation, water pollution, and biodiversity loss echo global evidence on the ecological costs of lithium extraction (Kaunda, 2020; Sonter et al., 2020), and the evidence of environmental destruction in other mineral mining sites in Ghana (Magidi & Hlungwani, 2023; Okyere et al., 2021; Amoah & Eweje, 2022; Nguyen et al., 2018; Asamoah et al., 2013). This juxtaposition of confidence in company assurances and fear rooted in lived experience underscores the critical need for transparent environmental monitoring and participatory environmental impact assessments. It also reveals that environmental stewardship is not only an ecological issue but a social one that is deeply intertwined with perceptions of corporate sincerity and moral responsibility (Agusdinata et al., 2018; Marchegiani et al., 2020).

Another equally vital layer of the perceived operational impacts of the Ewoyaa discourse concerns cultural ethics and traditional authority. The study's findings on perceived adherence to cultural protocols and the community's insistence on protecting sacred sites demonstrate the enduring relevance of indigenous governance in modern resource economies (Agusdinata et al., 2018; Marchegiani et al., 2020). Traditional leaders acted as both custodians of heritage and intermediaries between the state, corporations, and the people. This finding is not a stand-alone practice as it is consistent with a study by (Agusdinata et al., 2018; Marchegiani et al., 2020) at Tanchara in the Upper West Region, and (Agusdinata et al., 2018; Marchegiani et al., 2020) content analysis study, which submitted that generally, traditional leaders across Ghana act in protest against any exploration that tends to undermine the existence and sustainability of their sacred sites. Their role, however, demands careful balance to avoid elite capture—a recurrent risk where chiefs or local elites monopolise negotiations and benefits (Ubink, 2007). The fact that Ewoyaa's leaders explicitly advocate for respect toward shrines, cemeteries, and ancestral sites reflects an ethical framework of reciprocity, where the mining company's moral legitimacy depends on honouring spiritual and cultural boundaries.

5.3 Trust

The question of trust is thus central to the sustainability of the Ewoyaa project. Trust has been gradually built through respect for cultural protocols, continuous communication, and the visible presence of company representatives. Yet, it remains fragile, easily undermined by delays in project implementation and perceived inconsistencies in compensation or revenue-sharing discussions. In mining contexts, trust is seldom static—it must be renewed through demonstrable fairness and

tangible benefits (Thomson & Boutilier, 2011). The earlier suspicion voiced by Ewoyaa residents' mirrors Ghana's historical experience, where mining projects, despite initial enthusiasm, failed to deliver long-term community transformation (Hilson & Potter, 2005; Bebbington et al., 2008), highlighting that SLO, as an evolving social contract, depends less on promises and more on credible performance.

In spite of the doubts raised, traditional leaders demonstrate a collective trust in Atlantic Lithium's proposed operations (Poppo & Schepker, 2010), which is an adequate justification of their acceptance of the Company, and, for that matter, the granting of a social licence to operate the Ewoyaa Lithium mining project by Atlantic Lithium. Clearly, the social consent given would not rest on the perceived benefits or promises made by Atlantic Lithium. Rather, it has been due to the relationship the Company has built with the community by way of engagement. The perceived constant engagement has led to what (Agusdinata et al., 2018; Marchegiani et al., 2020) found as interactional trust that is built not by the amount of money spent on infrastructure, etc., in the community, but by the quality of engagement, and how the Konkola Copper Mines treated and responded to community issues regarding their mining operations at Nchanga, Zambia. In central west New South Wales, North Parkes Mines established a firmer trusting relationship with local communities through a combination of strategies, including context-specific community engagement practices, which allowed indigenes an adequate opportunity to engage in key managerial decisions (Michell & McManus, 2013).

In synthesis, the Ewoyaa Lithium Project exemplifies the multi-layered nature of extractive legitimacy in the Global South. The community's conditional social licence is not merely a reflection of current engagement but a response to a longer historical and political economy of extraction in Ghana. The analytical depth of this case lies in how it reveals SLO as a dynamic negotiation shaped by intersecting logics of trust, fairness, culture, and expectation. Moving forward, achieving a durable social licence will require transforming consultative engagement into participatory governance, coupling environmental monitoring with community knowledge systems, and embedding benefit-sharing within transparent, enforceable institutional frameworks. In doing so, Ewoyaa could serve not just as Ghana's first lithium mine but as a model for reimagining extractive legitimacy in Africa's energy transition era.

6   Conclusion

It was imperative for this study to have been conducted as it has added to the debate and provided further empirical evidence on the literature on mineral extraction in developing countries, particularly Ghana. Even more crucial is the study's ability to bring to the fore Ghana's key position in relation to the global transition to renewable energy and lithium mining discourse. By relying entirely on qualitative data, and

premising it on the social licence to operate (SLO) pathway model, the study highlights the centrality of community engagement (advised to be more participatory) and the role of community gate-keepers, for instance, traditional leaders, in granting of social permits for extractive industries in indigenous societies that play host to mineral resources.

As was found, the granting of SLO is premised on trust, which is collectively offered to Atlantic Lithium, primarily due to the relationship they have built with the community. Thus, the fairness with which the Company appeared and went about their engagements, and partly due to the perceived favourable socio-economic, environmental, and cultural impacts that the mining operation is to make available to them. To transform such provisional consent into enduring legitimacy, mining governance and mining companies' engagement with communities in Ghana must not only be consultative but must also evolve to being co-decisional, embed transparency in benefit-sharing, and integrate local ecological and cultural knowledge into formal environmental management.

Lastly, while consent may be given by a community, sometimes through its leaders, as in the case of this study, caution ought to be exercised in believing that the absence of conflict is equivalent to the presence of social approval. As much as possible, the majority of voices in the community should be given preeminence over the selected few, so as to be sure to have dealt with every conflicting view in giving the social consent. Again, community engagements with mining companies led by traditional authorities and community leaders need to be transparent and open to prevent corrupt practices, which may influence consent giving. It is important to adhere to these since in the history of mineral extraction, be they large-scale industrial operations or small-scale ("illegal") mining in Ghana, has hardly been in favour of mining communities.

6.1   Recommendations

Considering the findings, it is advised that the Government of Ghana and the UN ensure that community engagement by mining corporations moves beyond mere consultation to become participatory, allowing community representatives and traditional authorities to meaningfully partake in key decisions regarding mineral extraction in their areas. Additionally, the government should guarantee that mining firms respect indigenous knowledge systems in managing local ecological resources while protecting cultural heritage. Such integration and compliance would strengthen both ecological resilience and social legitimacy. Lastly, the government, mining firms (such as Atlantic Lithium), and local mining communities (like Ewoyaa) should collaborate to develop practical policy frameworks that prioritise indigenous recruitment into the mining sector, while also promoting equity in benefit sharing.

This approach would help prevent the recurrence of extractive disenchantment that has marked Ghana's gold sector.

7   Suggestion(s) for future research

It would be prudent for a future study to expand the population base (participants/subjects) to gather views on social licence to operate, not just from a few community leaders. This will warrant a more pragmatic approach that includes both quantitative and qualitative data collection and analysis.

8   Funding

The author received no specific funding for this work.

9   Conflicts of interest/Competing interests

The author declares no known competing interest

10 Availability of data and material

Data is available upon reasonable request

11 Code availability

Not applicable

Asamoah (2026)

References

Agusdinata, D. B., Liu, W., Eakin, H., & Romero, H. (2018). Socio-environmental impacts of lithium mineral extraction: Towards a research agenda. *Environmental Research Letters*, 13(12), 123001. https://doi.org/10.1088/1748-9326/aae9b1

Amoah, P., & Eweje, G. (2022). Barriers to environmental sustainability practices of multinational mining companies in Ghana: An institutional complexity perspective. *Corporate Governance: The International Journal of Business in Society*, 22(2), 364–384. https://doi.org/10.1108/CG-06-2021-0229

Ansu-Mensah, P., Marfo, E. O., Awuah, L. S., & Amoako, K. O. (2021). Corporate social responsibility and stakeholder engagement in Ghana's mining sector: A case study of Newmont Ahafo mines. *International Journal of Corporate Social Responsibility*, 6(1), 1. https://doi.org/10.1186/s40991-020-00054-2

Asamoah, Y., Akyeampong, O., Barima-Antwi, K., & Dauda, S. (2013). Residents' perceptions on the manifestation of the natural resource curse in the Tarkwa-Nsuaem Municipality, Ghana. *Oguaa journal of social sciences*, 7(1), 218-240.

Atlantic Lithium Ltd. (2024). *New Dog-Leg Target Delivers Increase to Ewoyaa MRE*. https://gse.com.gh/wp-content/uploads/2024/07/PR-231-ATLANTIC-LITHIUM-PLC-NEW-DOG-LEG-TARGET-DELIVERS-INCREASE-TO-EWOYAA-MRE-2.pdf#:~:text=Highlights:%20%2D%20Total%20Mineral%20Resource%20Estimate%20for,@%201.15%25%20Li%E2%82%82O%20in%20the%20Inferred%20category).

Atlantic Lithium Ltd. (2023). *Ewoyaa definitive feasibility study.* https://www.investegate.co.uk/announcement/rns/atlantic-lithium-limited-npv-di--all/ewoyaa definitive-feasibility-study/7602496

Atlantic Lithium Ltd. (n.d.). Ewoyaa, Ghana. Atlantic Lithium Ltd. Retrieved December 14, 2025, from https://www.atlanticlithium.com.au/projects-ghana

Barnwell, G., Makaulule, M., Stroud, L., Watson, M., & Mashudu Rubson, D. (2021). "Mupo Is Life": Intergenerational Community Identity and Safeguarding Sacred Natural Sites in Limpopo Province, South Africa. *Ecopsychology*, 13(4), 227–239. https://doi.org/10.1089/eco.2020.0058

Bebbington, A., Hinojosa, L., Bebbington, D. H., Burneo, M. L., & Warnaars, X. (2008). Contention and Ambiguity: Mining and the Possibilities of Development. *Development and Change*, 39(6), 887–914. https://doi.org/10.1111/j.1467-7660.2008.00517.x

Benshaul-Tolonen, A., Chuhan-Pole, P., Dabalen, A., Kotsadam, A., & Sanoh, A. (2019). The local socioeconomic effects of gold mining: Evidence from Ghana. *The*

Extractive Industries and Society, 6(4), 1234–1255. https://doi.org/10.1016/j.exis.2019.07.008

Besley, J. C. (2010). Public Engagement and the Impact of Fairness Perceptions on Decision Favorability and Acceptance. *Science Communication*, 32(2), 256–280. https://doi.org/10.1177/1075547009358624

Boafo, J., Obodai, J., Stemn, E., & Nkrumah, P. N. (2024). The race for critical minerals in Africa: A blessing or another resource curse? *Resources Policy*, 93, 105046. https://doi.org/10.1016/j.resourpol.2024.105046

Breakey, H., Wood, G., & Sampford, C. (2025). Understanding and defining the social licence to operate: Social acceptance, local values, overall moral legitimacy, and 'moral authority'. *Resources Policy*, 102, 105488. https://doi.org/10.1016/j.resourpol.2025.105488

Brock, T., Reed, M. G., & Stewart, K. J. (2021). Indigenous community participation in resource development decision-making: Practitioner perceptions of legal and voluntary arrangements. *Journal of Environmental Management*, 283, 111922. https://doi.org/10.1016/j.jenvman.2020.111922

Bugri, J. T., & Kumi, S. (2018). Dynamics of community perceptions, common resources and compensation practices in mining: The case of Newmont Ghana Gold Ltd at Ahafo. *International Journal of the Commons*, 12(1), 1–24. https://doi.org/10.18352/ijc.757

Butzier, S. R., & Stevenson, S. M. (2014). Indigenous Peoples' Rights to Sacred Sites and Traditional Cultural Properties and the Role of Consultation and Free, Prior and Informed Consent. *Journal of Energy & Natural Resources Law*, 32(3), 297–334. https://doi.org/10.1080/02646811.2014.11435364

Calderon, J. L., Smith, N. M., Bazilian, M. D., & Holley, E. (2024). Critical mineral demand estimates for low-carbon technologies: What do they tell us and how can they evolve? *Renewable and Sustainable Energy Reviews*, 189, 113938. https://doi.org/10.1016/j.rser.2023.113938

Cooney, J. (2017). Reflections on the 20th anniversary of the term 'social licence'. *Journal of Energy & Natural Resources Law*, 35(2), 197–200. https://doi.org/10.1080/02646811.2016.1269472

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA: Sage.

Dare, M. (Lain), Schirmer, J., & Vanclay, F. (2011). Does forest certification enhance community engagement in Australian plantation management? *Forest Policy and Economics*, 13(5), 328–337. https://doi.org/10.1016/j.forpol.2011.03.011

Dikgwatlhe, P., & Mulenga, F. (2023). Perceptions of local communities regarding the impacts of mining on employment and economic activities in South Africa.

Resources Policy, 80, 103138. https://doi.org/10.1016/j.resourpol.2022.103138

Doda -Doffana, Z. (2019). Sacred sites and ancestor veneration in Sidama, southwest Ethiopia: A socio-ecological perspective. *Cogent Social Sciences*, 5(1), 1704600. https://doi.org/10.1080/23311886.2019.1704600

Dorn, F. M., Gundermann, H., & Gundermann, H. (2022). Mining companies, indigenous communities, and the state: The political ecology of lithium in Chile (Salar de Atacama) and Argentina (Salar de Olaroz-Cauchari). *Journal of Political Ecology*, 29(1). https://doi.org/10.2458/jpe.5014

Dzage, E. J., Nyamalor, S. A., & Szabados, G. N. (2024). "When Gold Remains in the Ground, it will not Rot": Corporate Social Responsibility Imbalances between Mining Companies and Host Communities in Ghana. *Journal of Sustainability Research*, 6(4). https://doi.org/10.20900/jsr20240075

Dzivenu, E. (2025). *Parliament must ratify Ewoyaa Lithium Project before year-end 2025 to improve livelihoods: Nkusukum Paramount Chief*. JoyOnline. https://www.myjoyonline.com/parliament-must-ratify-ewoyaa-lithium-project-before-year-end-2025-to-improve-livelihoods-nkusukum-paramount-chief/

Ghana Statistical Services (2022). Ghana Population and Housing Census 2021 General Report.

Glückler, J., & Gutiérrez, D. (2025). Social licence to operate: An institutional critique and research framework. *Resources Policy*, 107, 105657. https://doi.org/10.1016/j.resourpol.2025.105657

Hartley, J. M., Scott, S., Yang, J. M., Anderson, P. A., Harper, G. D. J., Ahuja, J., Petavratzi, E., Tulsidas, H., & Abbott, A. P. (2025). Timeline for establishing a circular economy for lithium-ion batteries. *EES Batteries*, 1(6), 1502–1514. https://doi.org/10.1039/D5EB00144G

Hilson, G., & Potter, C. (2005). Structural Adjustment and Subsistence Industry: Artisanal Gold Mining in Ghana. *Development and Change*, 36(1), 103–131. https://doi.org/10.1111/j.0012-155X.2005.00404.x

International Council on Mining and Metals (2024). *Mining companies strengthen their commitment to respect the rights of Indigenous Peoples*. https://www.icmm.com/indigenous-peoples

International Energy Agency (2021). The Role of Critical Minerals in Clean Energy Transitions. International Energy Agency. https://iea.blob.core.windows.net/assets/ffd2a83b-8c30-4e9d-980a-52b6d9a86fdc/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf

Jani, V., Webb, N. L., & De Wit, A. H. (2024). Community-based natural resource management and social exclusion in Zimbabwe. *Development Southern Africa*, 41(1), 225–242. https://doi.org/10.1080/0376835X.2023.2279112

Kaunda, R. B. (2020). Potential environmental impacts of lithium mining. *Journal of Energy & Natural Resources Law*, 38(3), 237–244. https://doi.org/10.1080/02646811.2020.1754596

Keeley, M. (1995). Continuing the social contract tradition. *Business Ethics Quarterly*, 241-255.

Kleinhempel, U. R., & Nicolaides, P. A. (2024). Sacred sites, identity, and resilience—On the retrieval of collective and historic identity across religious and cultural difference. *Pharos Journal of Theology*, 105(1). https://doi.org/10.46222/pharosjot.105133

Leeuwerik, R. N. C., Rozemeijer, M. J. C., & Van Leeuwen, J. (2021). Conceptualizing the interaction of context, process and status in the Social Licence to operate: The case of marine diamond mining in Namibia. *Resources Policy*, 73, 102153. https://doi.org/10.1016/j.resourpol.2021.102153

Lunde Seefeldt, J. (2022). Water as property: Contention between indigenous communities and the lithium industry for water rights in Chile. *Latin American Policy*, 13(2), 328–353. https://doi.org/10.1111/lamp.12265

Magidi, M., & Hlungwani, P. M. (2023). Development or destruction? Impacts of mining on the environment and rural livelihoods at Connemara Mine, Zimbabwe. *South African Geographical Journal*, 105(2), 157–178. https://doi.org/10.1080/03736245.2022.2032294

Maillé, M. È., Baba, S., & Marcotte, G. (2023). Social licence to operate: Social acceptance in
the Quebec context. *The Extractive Industries and Society*, 15, 101269.

Marchegiani, P., Morgera, E., & Parks, L. (2020). Indigenous peoples' rights to natural resources in Argentina: The challenges of impact assessment, consent and fair and equitable benefit-sharing in cases of lithium mining. *The International Journal of Human Rights,* 24(2–3), 224–240. https://doi.org/10.1080/13642987.2019.1677617

Mata, M., & Hlaváček, P. (2024). Lithium Mining as a Tool for Economic and Energy Transformation of Region: Reflections on Policies, Processes and Communities. *International Journal of Energy Economics and Policy*, 14(6), 46–54. https://doi.org/10.32479/ijeep.17052

Measham, T. & Fleming, D. (2013). Lessons from developments of resource extraction industries in rural areas: a literature review report to the Gas Industry Social and Environmental Research Alliance (GISERA). June 2013. http://www.gisera.org.au/publications/tech_reports_papers/socioeco-proj-1-lit-review.pdf

Mfantseman Municipal Assembly (2020). *Implementation of Medium-Term Development Plan* (2018-2021): Annual Progress Report – 2019.

Mfantseman Municipal Assembly (2024). Composite Budget For 2025-2028 Programme Based Budget Estimates For 2025.

Michell, G., & McManus, P. (2013). Engaging communities for success: social impact assessment and social licence to operate at Northparkes Mines, NSW. *Australian Geographer,* 44(4), 435-459.

Moffat, K., Lacey, J., Zhang, A., & Leipold, S. (2016). The social licence to operate: A critical review. *Forestry*, 89(5), 477–488. https://doi.org/10.1093/forestry/cpv044

Moffat, K., & Zhang, A. (2014). The paths to social licence to operate: An integrative model

explaining community acceptance of mining. *Resources policy*, 39, 61-70.

Murrey, A., Jackson, N., & Volonterio, M. (2023). Social Licence to Operate. Cosmopolitan Civil Societies: *An Interdisciplinary Journal*, 15(1), 1–18. https://doi.org/10.5130/ccs.v15.i1.8334

Nguyen, N., Boruff, B., & Tonts, M. (2018). Fool's Gold: Understanding Social, Economic and Environmental Impacts from Gold Mining in Quang Nam Province, Vietnam. *Sustainability*, 10(5), 1355. https://doi.org/10.3390/su10051355

NS Energy (2024). *Ewoyaa Lithium Project, Ghana.* https://www.nsenergybusiness.com/projects/ewoyaa-lithium-project-ghana/?cf-view

O'Faircheallaigh, C., & Corbett, T. (2005). Indigenous participation in environmental management of mining projects: The role of negotiated agreements. *Environmental Politics*, 14(5), 629–647. https://doi.org/10.1080/09644010500257912

Odame, P. K. (2022). Travel mode choice and its responsiveness to the needs of commuters with disability in the Accra Metropolitan Assembly. *Journal of Land Use, Mobility and Environment (TeMA),* 15(3), 431–445. https://doi.org/https://doi.org/10.6093/1970-9870/9062

Ofori, K. J. (2022). Local Communities' Needs and Corporate Social Responsibility (CSR) Payments. A Case Study of Mining Company in Birim North District in the Eastern Region of Ghana. *Global Journal of Arts and Social Sciences*, 4(2), 1-9. https://doi.org/10.36266/GJASS/167

Okyere, M., Ayitey, J., & Ajabuin, B. A. (2021). Large scale mining in Ghana: a review of the implications on the host communities. *Journal of Degraded and Mining Lands Management*, 9(1), 3193–3199. https://doi.org/10.15243/jdmlm.2021.091.3193

Osei, B. K., & Asantewa, J. (2025). Traditional Leadership, Indigenous Knowledge and Environmental Conservation in Ghana: A Content Analysis. *Open Journal of Social Sciences*, 13(6), 136-156.

Owen, J. R., & Kemp, D. (2013). Social licence and mining: A critical perspective. *Resources Policy*, 38(1), 29–35. https://doi.org/10.1016/j.resourpol.2012.06.016

Petavratzi, E., Sanchez‑Lopez, M. D., Hughes, A., Stacey, J., Ford, J. R., & Butcher, A. (2022). The impacts of environmental, social and governance (ESG) issues in achieving sustainable lithium supply in the Lithium Triangle. *Mineral Economics*, 35(3–4), 673–699. https://doi.org/10.1007/s13563-022-00332-4

Poncian, J. (2021). Resource nationalism and community engagement in extractive resource governance: Insights from Tanzania. *Review of African Political Economy*, 48(170). https://doi.org/10.1080/03056244.2021.1953975

Poppo, L., & Schepker, D. J. (2010). Repairing public trust in organizations. *Corporate Reputation Review*, 13(2), 124-141.

Prno, J., Pickard, M., & Kaiyogana, J. (2021). Effective Community Engagement during the Environmental Assessment of a Mining Project in the Canadian Arctic. *Environmental Management*, 67(5), 1000–1015. https://doi.org/10.1007/s00267-021-01426-5

Rahmawati, C. T., & Alhaqi, R. A. H. (2025). The impact of mining exploitation on community interaction: A social and environmental perspective. *Interaction, Community Engagement, and Social Environment*, 2(2). https://doi.org/10.61511/icese.v2i2.2025.1484

Ruwhiu, D., & Carter, L. (2016). Negotiating "meaningful participation" for Indigenous peoples in the context of mining. *Corporate Governance*, 16(4), 641–654. https://doi.org/10.1108/CG-10-2015-0138

Siachiwena, H. (2025). The benefits of resource extraction in mining districts: Citizens' perceptions in Ghana. *The Extractive Industries and Society*, 23, 101667.

Sonter, L. J., Simmonds, J. S., Watson, J. E. M., Jones, J. P. G., Kiesecker, J. M., Costa, H. M., Bennun, L., Edwards, S., Grantham, H. S., Griffiths, V. F., Jones, K., Sochi, K., Puydarrieux, P., Quétier, F., Rainer, H., Rainey, H., Roe, D., Satar, M., Soares-Filho, B. S., … Maron, M. (2020). Local conditions and policy design determine whether ecological compensation can achieve No Net Loss goals. *Nature Communications*, 11(1), 2072. https://doi.org/10.1038/s41467-020-15861-1

Soulé, F., Butu, M. M., & Amoah-Darkwah, E. (2025). Can Critical Mineral Deals Benefit Local Communities? Insights From Ghana's Lithium Project. https://carnegieproductionassets.s3.amazonaws.com/static/files/Soule%20et%20al_Ghana%20lithium.pdf

Stuart, A., Bond, A., Franco, A. M. A., Baker, J., Gerrard, C., Danino, V., & Jones, K. (2023). Conceptualising social licence to operate. *Resources Policy*, 85, 103962. https://doi.org/10.1016/j.resourpol.2023.103962

Tella, A. A., & Danjibo, N. D. (2024). The environmental impact of mining activities in the local

community: a structural equation modelling approach. *International Journal of Social Work*, 11(1), 44-53.

Tenkorang, E. Y. (2023). Environmental Governance in Gold Mining: The Role of Traditional Institutions in Asutifi North District of Ghana. *Sage Open*, 13(2), 21582440231178175. https://doi.org/10.1177/21582440231178175

The Ethical Funds Company. (2009). Learn the lingo. Retrieved from https://www.ethicalfunds.com/en/Investor/ChangingTheWorld/AboutSRI/Pages/LearnTheLingo.aspx

Thomson, I., & Boutilier, R. G. (2011). Social licence to operate. SME mining engineering

handbook, 1, 1779-1796.

Tindana, P., Rozmovits, L., Boulanger, R., Bandewar, S. V. S., Aborigo, R., Hodgson, A. V. O., Kolopack, P. A., & Lavery, J. V. (2011). Aligning Community Engagement With Traditional Authority Structures in Global Health Research: A Case Study From Northern Ghana. *American Journal of Public Health*, 101(10), 1857–1867. https://doi.org/10.2105/ajph.2011.300203

Tyler, T. R. (2000). Multiculturalism and the Willingness of Citizens to Defer to Law and to Legal Authorities. *Law & Social Inquiry*, 25(04), 983–1019. https://doi.org/10.1111/j.1747-4469.2000.tb00314.x

Ubink, J., & Pickering, J. (2024). The mine, the community, and the chief–mining governance and community representation in conditions of legal pluralism. *Legal Pluralism and Critical Social Analysis,* 56(2), 236–264. https://doi.org/10.1080/27706869.2024.2372898

Ubink, J. (2007). Traditional authority revisited: Popular perceptions of chiefs and chieftaincy in peri-urban Kumasi, Ghana. *The Journal of Legal Pluralism and Unofficial Law*, 39(55), 123-161.

United Nations General Assembly. (2007, October 2). *United Nations Declaration on the Rights of Indigenous Peoples (A/RES/61/295).* United Nations. https://undocs.org/A/RES/61/295.

Vikström, H., Davidsson, S., & Höök, M. (2013). Lithium availability and future production outlooks. *Applied Energy*, 110, 252–266. https://doi.org/10.1016/j.apenergy.2013.04.005

Watari, T., Nansai, K., Nakajima, K., McLellan, B. C., Dominish, E., & Giurco, D. (2019). Integrating Circular Economy Strategies with Low-Carbon Scenarios:

Lithium Use in Electric Vehicles. *Environmental Science & Technology,* 53(20), 11657–11665. https://doi.org/10.1021/acs.est.9b02872

Wilburn, K. M., & Wilburn, R. (2011). Achieving social licence to operate using stakeholder theory. *Journal of International Business Ethics*, 4(2)

Zembe, S., & Barnes, D. N. (2023). Exploring community engagement challenges in the mining sector of South Africa. Jurnal Pengabdian Kepada Masyarakat. *Indonesian Journal of Community Engagement*, 9(1), 53. https://doi.org/10.22146/jpkm.72217