

Indigenes' Perceptions of Gold Mining in Their Communities: A Case Study of Gold Exploration in Nadowli District of the Upper West Region of Ghana

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Abstract

This paper explores the perceptions of indigenes about the mining of gold in their communities in the Nadowli district of the Upper West region in Ghana. The study adopted a qualitative research approach using the Chere community as a case study. Interviews and focus group discussions were used to collect the data. The data was analysed through thematic analysis. The findings showed that indigenes of the mining community have mixed perceptions of the gold exploration in their community. On one hand, the gold exploration has transformed and improved livelihoods of local communities in the Nadowli district. On the other, it has affected the environment negatively. The activities of mining have myriad impacts on the life of the community (local economy, local politics, education, health, marriage, religion). There is a growing tension between the host community and the principal mining firm operating in the Chere community. Despite the benefits that the host community has obtained, activities of mining are viewed as serious threats to community settlement and farmlands. The interaction between the local community and mining firm could degenerate into a full-scale violent conflict. It is recommended that appropriate platforms be created for host communities and the mining firm to interact to address grievances arising out of the mineral exploration in the Nadowli district.

Keywords: Indigenes, Perceptions, Gold Mining, Nadowli, Upper West, Ghana

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1. INTRODUCTION

This paper explores the perceptions of indigenes about the mining of gold in their communities in the Nadowli district of the Upper West region of Ghana. The decision to undertake this research was necessitated by two issues: First, the growing consensus among Ghanaians about the adverse consequences of mining activities on communities and the country in recent times; and second, the lack of data to understand the perceptions the indigenes hold about the mining of gold in the Nadowli District of the Upper West Region. Mining is not a recent activity in Africa in general (United Nations Economic Commission for Africa, 2011) and Ghana in particular (Twerefou et al., 2015). In recent times, the mining sector has attracted many and varied stakeholders ranging from licensed mining companies to illegal mining operators. A wide range of mineral resources abound in Ghana. Notable among them are diamond, bauxite, manganese, gold, salt, among others. Starkly, Twerefou et al. (2015) cite gold, diamond, bauxite, and manganese as the most important among the pool of mineral resources that are at Ghana's disposal, advancing that their economic and foreign exchange returns outweigh the revenue derived from all other mineral resources in the country. This probably explains why gold and diamond are often mentioned by governments and other stakeholders in Ghana's development planning and yearly budgets. Ghana is second in Africa in terms of gold production and accounts for about 5.7% of the country's GDP (Mensah et al., 2015). The contribution of mining to development has been widely acknowledged (Twerefou et al., 2015; United Nations Economic Commission for Africa, 2011; Kadiresan, 2012; Que et al., 2018; Cooper & Harvey, 2018; Söderholm & Svahn, 2014; Mkubukeli & Tengeh, 2016; MacLean et al., 2010). There is a growing dependence of many African countries on minerals such as gold and diamond (Kadiresan, 2012). Mining increases the per capita GNI of countries, expands economies and GDP growth (Kadiresan, 2012), provides livelihoods and employment for the local population (Que et al, 2018; Buxton, 2013; Mining, Minerals and Sustainable Development Project (MMSD), 2002; Yeboah, 2008; Twerefou et al., 2015) and serves as an important contributor to foreign exchange returns of Ghana in particular (Twerefou et al., 2015). Minerals are essential fuels and raw materials that guarantee industrialization and daily living (Que et al., 2018). However, the way mining is managed may be a useful determinant of the kind of impact (social, economic, environmental among others) that communities experience. The impact could be beneficial or adverse. The adverse consequences of mining tend to fall directly on the local community, albeit the whole world usually enjoy the benefits (Que et al, 2018). This could explain why, perhaps, often local communities tend to have tense relations with mining companies, community leaders, government agencies or institutions.

Though, perhaps, not in large quantities as compared to the southern Ghana, gold mining has been taking

place in the Upper West Region. Nadowli District is one of the few areas where gold is being mined in the Upper West Region over the past six years. Despite the occurrence of mining activities in some communities in the Nadowli District, the local populations' perspectives about the mining of gold in the area are yet to be paid attention to or reported in a systematic manner. The indigenes' voices seem to be drowned from the public discourses on mineral resource management in Ghana. Given the recent reports in media about the adverse consequences of mining activities on local communities and the blatant violation of the rules and regulations governing mineral exploration in Ghana, exploring the perspectives of the local populations on the mining of gold in the Nadowli District is a crucial gateway to understanding the prospects and problems mining activities pose (McLean et al, 2010). Through this research work, the voices of the local communities are brought to the public arena where mineral exploration discourses, policies, and programmes are discussed.

The research objectives that directed the study were to:

1. Explore the perceptions of indigenes of Chere community about the gold mining in their community
2. Analyse the effects of the gold mining in Chere on the community's life
3. Understand how gold mining in Chere community has impacted the physical environment.

The purpose of the study was to explore the perceptions of indigenes in the Nadowli district of the Upper West Region about gold mining in their communities and how that has impacted their lives and the environment.

1.1 LITERATURE

Although mineral exploration has transformed countries and economies tremendously (Kadiresan, 2012), it has also visited some adverse consequences on some communities where mineral explorations are carried out (MMSD, 2002). With the advancement in mining technology (Automated-driverless trucks, robots, drones and the like), jobs that are provided by the mining sector become fewer (Cooper & Harvey, 2018). Activities that originally were done manually are being performed by advanced technologies. At the same time, the "advancements in big data processing power and machine learning technologies offer an opportunity to accelerate and deepen the understanding of complex, interconnected issues and enable problem solving at a scale not conceivable before" (Cooper & Harvey, 2018: 5). The tremendous opportunities provided by mining require, as Kadiresan (2012: 2) suggests: "moving away from enclave model of mineral development toward stronger economic linkages; and ensuring wise management of resource curse risks such as managing volatility and Dutch Disease, investing in human capital, saving for future generations." Kadiresan (2012) added that these suggestions reflect a major theme of the African Mining Vision 2050 – Action Plan, which the African Union (AU) adopted in December 2011.

Twerefou et al (2015) studied the "Attitudes of Local People to Mining Policies and Interventions" in Ghana and revealed some social factors influencing the local people's attitudes. These factors include resettlement issues; inadequate provision of social services such as education and health, water scarcity, increase in social problems such as theft, prostitution, alcoholism, and conflicts. Twerefou et al (2015) discovered that most of the resettled residents (82%) were not satisfied with the resettlement package. Twerefou et al (2015) also unearthed that many of the resettled residents (67%) claimed ignorance of the resettlement negotiation processes.

Mining enhances development benefits to local communities and also help in the expansion of economies (Twerefou et al., 2015; Yeboah, 2008; Kadiresan, 2012; MMSD, 2002; Ledwaba & Nhlengetwa, 2015; Que et al, 2018; Cooper & Harvey, 2018; Buxton, 2013; Söderholm & Svahn, 2014; Mkubukeli & Tengeh, 2016; MacLean et al, 2010). At the same time, mining's contributions have also been reported to have generated some detrimental environmental and social concerns. According to the United Nations Economic Commission for Africa (2011: 45), there is a strong-direct "link among environmental impacts, human rights violations and obstacles to sustainable development in mining." Furthermore, United Nations Economic Commission for Africa (2011: 59) reports that mining corporations are sometimes involved in human rights aberrations such as:

the disappearance of people, violation of the right to a clean environment, arbitrary detention and torture, loss of land and livelihoods without negotiation and without adequate compensation, forced resettlement, the destruction of ritually or culturally significant sites without compensation or compensation and labour rights violations.

According to the Centre for Environmental Rights and Lawyers for Human Rights (2013: 2), "Communities struggle to defend their rights to their land, to their environment and to their resources when faced with mining in their community." The economic development implication of mining is an important reflection of the relationship between mining industries and local communities (Söderholm & Svahn, 2014). One way to enhance socio-economic benefits to mining communities is to develop the cluster of economic activities that surround mining enterprises (Söderholm & Svahn, 2014). United Nations Economic Commission for Africa (2011) reports of several environmental and social impacts of mining in Africa. The environmental impacts reported by the commission include; climate change issues, pollution of water bodies and air, deforestation, soil erosion, land degradation, and ecosystem disruption, *inter alia*. The commission also discovered the following social impacts of mining in Africa:

Displacement of populations and resulting disruption of livelihoods; Increased poverty—for example, through a degraded environment on which community subsistence may depend; Increased internal economic inequalities—for example between men and women, between those with jobs at the mines and those without, and between communities receiving royalty payments and other benefits and resource rents and those who do not; and Economic dependency as local economic activity is reorganized to meet the needs of the mines, leaving the community vulnerable to a typical “boom and bust” economy, especially when the mines close down or experience reduced profitability as a result of low commodity prices (United Nations Economic Commission for Africa, 2011).

These social impacts that arise from mining can become recipe for conflicts. They may also lead to high prices in food stuff and other communities and more markedly affected communities may experience high levels of migration. Views about mining are varied. Carvalho (2017) describes mining as a disturbing human activity with detrimental environmental and social implications, and the breeding of inequalities. Mkubukeli and Tengeh (2016) explored the “*Prospects and Challenges for Small-Scale Mining Entrepreneurs in South Africa*” and revealed that small-scale mining entrepreneurs face numerous problems at the start-up and growth phase of their businesses. Mkubukeli and Tengeh (2016) also noted that free training and funding are the outstanding prospects of small-scale mining entrepreneurs.

According to McLean et al (2010), understanding the prospects and challenges that come with mineral exploration or mining is an important determinant of how mineral resources are managed and the processes involved in the procurement of mining policies. “Responsible mining” is uncommon and “mining laws, amendments, and administrative orders” are weak and unenforced (Stark, Li, & Terasawa, 2006: 13). Meanwhile, although the calls people sometimes make for a total ban on mining activities demonstrate “real environmental and social concerns”, such calls are “unjustified” (Stark et al., 2006: 13). Mankind’s future continues to rely heavily on mining (Carvalho, 2017).

In Ghana, the developmental gains of mining are not reaped without “significant environmental, health and social costs to the country” (Yeboah, 2008). In his study of the “*Environmental and Health Impact of Mining on Surrounding Communities: A Case Study of Anglogold Ashanti in Obuasi*”, Yeboah (2008) revealed some of the adverse environmental impacts concerns about the mining of minerals in Obuasi on local communities including; serious degradation of lands, pollution of water resources (such as the Kwabrafo, Pompo, Nyam, San and Akapori streams), air and noise pollution as well as contraction of diseases (such as malaria, tract infections and skin diseases). In corroborating, Yeboah’s (2008) insights as well as the revelations by the Centre for Environmental Rights and Lawyers for Human Rights (2013) mentioned the pollution of water bodies, air and soil, and disruption of agricultural activities and community life as some of the environmental concerns mining generates.

Mensah et al (2015) in studying the mining activities in Prestea in the Western Region of Ghana, unearthed the depletion of environmental resources such as water, soil, the landscape, vegetation, and the ecosystem in the region. Efforts need to be garnered to ensure sustainable mining. To ensure sustainability of mining operations, Que et al (2018) suggest that useful information should be obtained, and mine planning adjusted for the local mining communities. In the view of Que et al (2018), this is the challenge we face in the future. “Planning should be consultative and sufficiently inclusive to reflect the needs and aspirations of all legitimate stakeholders, especially mine-affected communities...” (Cooper & Harvey, 2018: 7). Good practice reforms need to be encouraged: enhanced revenue management and benefit sharing; and allocating mineral rights on fair terms (Kadiresan, 2012; United Nations Economic Commission for Africa, 2011). When such issues are not well attended to, they could breed tensed relations between mining communities and the mining companies (Söderholm & Svahn, 2014).

1.2 METHODOLOGY

A qualitative approach was used to explore the perspectives of the local people in the mining communities in the Nadowli District on the mining of gold, in terms of the prospects and problems associated with the exploration of the mineral. The Chere community was used as a case study. This study relied solely on primary data, so that the local people’s voices could be brought to the fore, to inform the management of Ghana’s mineral resources and procurement of policies. In-depth interviews and focus group discussions were the methods used for the data collection. The study participants include the chiefs, elders, landowners, ‘galamsayers’ (illegal small-scale miners), political leaders, ‘Tendaamba’ and community members in the mining communities of the Nadowli district. As a qualitative research, 15 study participants were drawn through purposive and convenience sampling. The chiefs and elders were purposively sampled while convenience sampling was used to draw the community members. Community members who were readily available to provide the information required in this research were selected and interviewed. I observed the mining situation in the district concurrently while going about interviewing and having group discussions with the research participants. During interviews participants were probed when the occasion calls for it to address all ambiguous issues that were raised during interaction sessions.

As an interpretive researcher, I was interested in the depth of the information that participants could provide, rather than the breadth. My choice of qualitative approach was informed by the opportunity it provided me to have a face-to-face or personal interaction with the study participants (local community members), as well as the space it created for the local people to express their views, opinions, feelings, and perspectives on the mining of gold in their community. The data collected was thematically analysed.

1.3 FINDINGS

This study sought to understand how indigenes of mining communities in the Nadowli District perceive the Gold mining in their community. The Chere community was used as a case study. The study discovered that two different mining activities were carried out in the community: One by the indigenes (known as galamsay) and the other by Azumah mining firm. The findings reveal mixed perceptions of mining by indigenes of the Chere community.

1.3.1 Indigenes' Perceptions of Mining Activities in their Community

1.3.1.1 Source of employment

Indigenes of the mining community view the mining in their community as a source of employment to the youth and the community members. Participants indicated that there is poverty in the community. They added that there are no jobs for the youth. Thus, they indicate that the mining in their community has come to provide employment to many youth and members of the community. Mining provides livelihoods and employment for the local population (Que et al., 2018; Buxton, 2013; MMSD, 2002; Yeboah, 2008; Twerefou et al., 2015). Participant claimed that they engage in local mining because there are no alternative jobs available for them. A participant commented in the interview that:

There is poverty in the community and that is why the youth engage in galamsay. If there is some other employment the youth will not engage in galamsay (Field Data, 2021)

Although galamsay is an illegal mining activity in Ghana, indigenes expressed the fact that they had no option but to engage in it to make money and to sustain their lives. It can thus be argued that the mining activities in the communities in the Nadowli District are major sources of employment and income to the communities.

1.3.1.2 Takes the minds of the youth off negative activities

The study found out that indigenes of the mining community perceive that mining in their community takes the minds of the youth off negative activities. Participants indicated that an idle person tends to think of bad or negative things such as thievery, armed robbery and others. However, participants claimed that since the start of mining in their community, the youth have been engaged and busy trying to make money to sustain their lives thereby taking their minds off such negative activities as armed robbery or thievery.

You see, the devil finds work for the idle hands. But because of the mining that the youth are engaged in, it takes their minds off bad activities. When they are busy they do not think of bad things. (Field Data, 2021)

Meanwhile, the study found out that at the time of this study, the indigenes have been stopped from engaging in further local mining (galamsay). As such, participants lamented that they were jobless.

1.3.1.3 A threat to community settlement

The study also discovered that indigenes of the mining community view the mining in their community as a threat to their habitat. Participants indicated that the mining site is close to their settlements and as such they are afraid that when minerals are found under their houses, they may be asked to relocate to different places so as to allow for the exploration of the minerals.

The mining site is just over there. You can see it is not far from here. We are not even safe because if they discover that there is Gold under your house they can ask you to leave so that they can exploit it. So we are not safe. Today we are here but who knows whether tomorrow we will still be living here. The closeness of the mining site to the community settlement could result in our relocation. (Field Data, 2021)

Thus, indigenes view the mining in their community as a threat to their permanent domicile. They fear that they could be asked to relocate any day if mineral resources are found under their settlements. As a result, there are worries and fears among community members about the mining in their community.

1.3.1.4 A threat to community farmlands and subsistence

The study further discovered that indigenes perceive the mining in their community as a threat to their farmlands. Participants indicate that their farmlands are their means of subsistence. The community is a farming community and farming is the major source of livelihood of the people. As such, participants indicated that mining has come to claim most of their farmlands and therefore constitutes a threat to their very existence and livelihood:

When you want to mine you have to dig the land. Some people will lose their lands. When the mining started the indigenous youth were the only people. As for the youth, they used to dig small pits or ghetto-like pits and do their things. But when the Azumah people came in they were using big machines, destroying a lot of lands. People can no longer go to their farms because when they go the soldiers will

chase them away. When some people go to their farms and see the security, they are always afraid and tend to run home. So we cannot even go to the farms that we have. They have stopped us from mining [galamsay] and now we cannot go to our farms too. So how are we going to survive? (Field Data, 2021)

The comment suggests that the indigenes perceive the mining in their community as a serious threat not only to their farmlands but to very existence. Thus, it can be argued that the mining in the Nadowli District is not viewed as merely a threat to community settlement but also to their major source of livelihood and existence.

1.3.1.5 Source of reduction in migration of the youth to the Southern parts of Ghana

When participants were asked what their perceptions of the mining in their community are, they also indicated that it is a source of curbing migration of the youth to the Southern part of Ghana. During the interviews and discussions, participants indicated that prior to the advent of mining in the community that many of the youth travelled to parts of Southern Ghana to work to get money to sustain themselves and their families. However, participants stated that when mining started in the community the youth no longer migrated to the south to work.

Our children used to go to Obuasi to work in the mines but with the beginning of mining in our community that has reduced drastically. (Field Data, 2021)

Participants claimed that the youth now stay and work in the community to support their families. Thus, they indicated that the mining in their community has reduced rural-urban migration. In general, the perceptions of indigenes of the mining community suggest that, as Carvalho (2017) argued, their lives and future are heavily dependent on mining.

1.3.2 Impact of Mining on Community's Life

The study also sought to understand how the mining in the Nadowli District impacts the lives of the mining communities. Every society or community is built around certain pillars such as politics, religion, economy, health, education and marriage. Thus, in trying to understand the impact of mining on host communities in the Nadowli district, the study looks at how it affects or impacts the local politics in the community, the local economy, religion, marriage, education, and health spheres of the community. The findings have revealed that the impacts of mining on the host community are both positive and negative. The findings also demonstrate that the various spheres of the community's life have been impacted differently. These are illustrated in the subsections that follow.

1.3.2.1 Impact on the Local Economy

The study discovered that the mining in Nadowli district has positive and negative impacts on the local economy of the mining community where this study was carried out. Participants indicated during discussions that mining provides them money which they in turn use to establish or set up businesses in their communities. Many of the indigenes that the study interacted with said that they use proceeds from the mining to do business to augment their family income. Participants also stated that previously farming was the principal driver of the local economy of the community. However, the extraction of gold in the community has provided them an additional source of income that they use to set up businesses to support their local economy. This perspective speaks to Kadiresan's (2012) argument that mining expands economies. Participants stated that they have been able to build houses to accommodate their families and buy means of transport such as motorbikes, tricycles, among others that facilitate their day-to-day businesses and movement. For example, one of the elders indicated in the interviews that:

Most of the houses you see in the community are built by the youth who engaged in galamsay. They have been able to take care of their families and built good houses for their families to live in. They have been able to buy motorbikes to facilitate their day-to-day activities. You see there are bad activities that galamsay brings about but the good things it produces are more. (Field Data, 2021)

Things are no longer the same as they used to be prior to mining in the Chere community. Also, participants indicated that the mining has destroyed their farmlands. According to the indigenes of the community, their lands are no longer fertile. One elderly member of the Chere community lamented during the discussion that:

Mining has destroyed the lands. Our lands are no longer fertile self. We still farm but that the yield has reduced. (Field Data, 2021)

It appears mining has come to replace farming as the major driver of the local economy of the communities in the Nadowli district. The local economy of mining communities in the Nadowli district has improved with the activities of mining in the district. Meanwhile, the indigenes indicated that they have been stopped from undertaking the small-scale illegal mining (galamsay) and this is affecting them adversely. They are also concerned that their lack of the requisite skills in mining technology disqualifies them from being employed by the Azumah mining company that has been given permit by the government of Ghana to mine in their community. They explained that the mining firm uses machines which they do not have the skills to operate and that makes it impossible for them to be employed. Thus, Cooper and Harvey (2018) indicate that the use of modern technology in mining would make the jobs provided by the firms fewer. Participants indicated that since their lands are no longer fertile, and their engagement in galamsay too has been stopped, it will be difficult for them to support themselves and their families. The study found out that some commercial trees such as shear

trees which contribute to the local economy of the community were destroyed as a result of the activities of Azumah mining firm. The felling of economic trees in order to mine is not only negative to the environment but also to the local economy of the mining community.

1.3.2.2 Impact on Education

The study found out that mining in the Nadowli district has affected formal education in the host communities both positively and negatively. On the positive side, participants indicated that because of mining in the community, people can raise funds to educate their children. One of the participants responded to another during the group discussion when the other said many of the young ones now prefer engaging in 'galamsay' than going to school thus:

But the thing is that when you have money then you can go to school. (Field Data, 2021)

The argument of participants is that education requires resources. Thus, without the resources or financial wherewithal, one cannot go to school. However, some participants also indicated that the mining in their community has come to cause some people having less interest in education. They indicated that because of the youth's engagement in mining which gives them instant money they choose drop out of school. Indigenes of the community further indicated that when they engage in mining the proceeds can be used to establish business instead of going to school. A participant stated his view during the group discussion as follows:

The money I get from mining can be used to set up a business instead of schooling. (Field Data, 2021)

Participants indicated that because many of the youth are able to make money out of mining to build houses and buy means of transport, they tend not to be interested in formal education. Therefore, it can be argued that although mining offers indigenes a source of income to fund their education, it is also demotivating people's interest in education.

1.3.2.3 Impact on Health

The impact of mining activities in communities in the Nadowli district on the health life of the mining communities is a source of worry to the indigenes. Participants indicated in the discussions and interviews that many people come into their community to work in the mines and as such they put pressure on the only health facility in the community. They also noted that different kinds of people come into the community to work and that such people often bring in various diseases which could spread among members of the community. Yeboah (2008) argued that though mining brings development benefits it also has health consequences. An elder shared this during my interaction with him in an interview:

Many people will come into the community and they will bring in diseases. You know that this mining many people will come in, foreigners will come and we do not know the kind of diseases they will bring. They will come in with all kinds of diseases and spread it in the community. So, all of us are not safe. All of us have to use the same health centre and when you go to hospital you will join long queues and there will be pressure on the facility. (Field Data, 2021)

Thus, there are concerns about pressure on the only health facility in the mining community since many people are going to come into community due to work. There are also worries among indigenes about infiltration and spread of contagious diseases in the community. Therefore, the health impact of mining in the Nadowli district on host communities is a major source of worry to the indigenes.

1.3.2.4 Impact on social roles and power relations in families

The local politics of the community has also been affected by the activities of mining in the community. By the local politics of the community, the man is the head and the breadwinner of the family. The man or husband is the major decision maker in the family who should be consulted and who superintends over all matters of the family. However, some participants claimed that with the engagement of both men and women in local mining, some women have made more money than their husbands and are now the breadwinners of their families. As such, some participants indicated in the discussions that some women now behave and act as if they are the heads of the family and take decisions or do things without recourse to their husbands. One of the men indicated this during the group discussion:

The women even have more money than us. Some now behave like they are the heads of the family. Why are you laughing?—(A respondent asking one of the women laughing during the group discussion). You see, she is laughing because she knows what I am saying is the truth. You see they [women] are smiling (participant pointing to women who were smiling during a focus group discussion). (Field Data, 2021)

Thus, local politics and power relations of the community have been impacted due to the mining in the community.

1.3.2.5 Impact on Marriage

The study found out that the marriage life of indigenes of the mining community has been affected since the start of mining activities in Chere. Some participants noted that people's marriages are in turbulence due to quarrels between couples because of the financial independence of one of the partners. Some participants claimed that because many men's financial status has improved due to their engagement in galamsay they tend to go out to enjoy themselves and sometimes come home late in the night and this sometimes result in quarrels between them

and their wives. During the group discussion, a participant highlighted as follows:

Oh that one too has been affected. If the husband makes more money and goes out with his friends to enjoy themselves and comes back late they always have problems with their wives. Some wives tend to think their husbands are cheating on them and tend to confront them resulting in quarrels and misunderstandings in marriages. Also, the women do not respect their husbands when they have more money than you. Oh am I telling lies? Don't you have more money than us? (Participant asking some women present during the focus group discussion) You see they are the people even having more than we the men so because of that they will not respect you the man. (Filed Data, 2021)

Also, participants indicated that because both men and women engaged in galamsay, women who have more money than their husbands tend not to respect them, thereby causing misunderstandings and quarrels in marriages. The findings seem to suggest that mining is breeding inequalities that tend to impact negatively on people's marriages as it appears to restructure social roles in the community. This therefore feeds into the argument of Carvalho (2017) that mining breeds inequalities.

1.3.2.6 Impact on Religion

Religion is one of the spheres of lives of every community. Thus, the study also sought to explore how mining in the community has impacted the spiritual life of the community. Participants indicated that mining in the community has resulted in the destruction of sacred sites or places. The indigenes claimed that mining activities by the operating firm has led to the clearing of trees and lands resulting in the destruction of some of their sacred places where their gods are believed to reside. For instance, a participant mentioned that:

Different faiths are here. The Catholic Church is here and also Assembly of God Church. But we also practice the traditional religion. That is what we even do. But because of the mining they cleared the place and some of our sacred places and trees were destroyed and our gods have become homeless. (Field Data, 2021)

It was discovered that there are different religious beliefs and practices in the mining community including Christianity and traditional religion. The indigenes indicated that most of them practice the traditional religion. However, they lamented that because the mining company had to clear bushes and fell trees in order to carry out their mining activities, that they ended up destroying some of their sacred trees and sites.

1.4 Impact on the Environment

One area that this study also explored was about the indigenes' perceptions about the impact of mining activities on their physical environment. The responses of the indigenes suggest that the mining activities in the community have produced negative consequences on the environment. This is illustrated in the sub-sections that follow.

1.4.1 Destruction of Farmlands

Participants recounted in my interactions with them how the mining company exploring minerals in their community used huge machines to destroy their farmlands. They indicated that they have not only lost their farmlands but that the activities of the mining company in their community have rendered most of the lands infertile. Although they acknowledged that they too (indigenes) engaged in mining activities until they were recently stopped, they indicated that they only engaged in ghetto-like mining where they dug small pits to explore the minerals. They claimed that their activities did not destroy the lands. They put the blame squarely on the mining company in their community for destroying large hectares of arable lands.

The mining firm has destroyed our lands. They are not even fertile again. We still farm but the fertility has diminished drastically. (Field Data, 2021)

According to the indigenes such areas are no longer arable and fertile. The indigenes also claimed that the mining company uses chemicals which affect the fertility of their lands and the ability of the soil to support crop yield.

1.4.2 Destruction of Trees and Vegetation

The study also found out that the mining activities in the Nadowli district have affected the vegetation of the host communities. Participants indicated that the indigenes who engaged in mining did not fell trees but only dug small pits to extract minerals. They however accused the mining company in their community of felling many trees. According to participants, the mining sites and the roads leading to the site were covered with trees, most of which were economic trees. The study discovered that all those trees had to be cleared by the mining company in order to carry out the mining activities.

Oh a lot of trees were destroyed. You see the road leading to the mining site, it was all covered with trees. That whole area they are mining was all full of trees. But when the Azumah people came they fell down all those trees with their big machines. Oh you should have been here to see when they first came. They were just pulling down trees. But now they no longer pull down trees. The destroyed trees have not been planted. As for the indigenes they did not destroy trees. (Field Data, 2021)

Some economic trees such as shear trees which contribute to the local economy of the community got destroyed

due to the mining activities. Participants indicated that such destruction of trees characterize the initial stages of mining in the community. The community lamented that most of the trees that were destroyed have not been replaced.

1.4.3 Pollution

Concerns about air and noise pollution were raised by the indigenes during interviews and group discussions. They indicated that the mining site is close to their settlements and the machines that are operated by the mining firm produce noise and release all kinds of gas into the atmosphere. As such, indigenes claimed the activities of mining by the mining firm in their community pollute the air and noise.

The mining site is just there and as you can see it is not far at all from where we are. If they are operating the machines we hear all the noise. The machines too release gases into the air which could even affect our health. If you are here and the military even shoot their gun there you hear it. (Field Data, 2021)

Thus, the indigenes expressed concerns about the activities of mining on the environment and the potential risks to the health of the community members. The adverse implications of mining activities on host communities far outweigh any tangible benefits. Yeboah (2008) indicate that mining gains do not come without cost to environment. Mining produces detrimental environmental concerns such as deforestation, air and noise pollution and degradation of lands (United Nations Economic Commission for Africa, 2011). Also, the findings affirmed Mensah et al (2015) discovery that the mining in Prestea destroyed landscapes and vegetation. Again, the findings are in line with the views of the Centre for Environmental Rights and Lawyers for Human Rights (2013: 2) that mining “communities struggle to defend their rights to their land, to their environment and to their resources when faced with mining in their community.” Overall, the findings agree with Que et al. (2018) argument that the adverse consequences of mining tend to fall directly on the local community, albeit the whole world usually enjoys the benefits.

1.5. CONCLUSION AND RECOMMENDATIONS

Mining is a major means of sustaining livelihoods and boosting economies of host communities. Mining could improve development and at the same time could produce consequences that hamper the environment and livelihoods. There are mixed perceptions about mining in the Nadowli district among the indigenes of the mining communities. On one hand, mining is viewed as contributing to the improvement of livelihoods and on the other, poses a threat to livelihoods. The impacts of the mining activities on the host community’s life are varied; negative and positive. The negative consequences of the mining activities are sources of concern to the indigenes. Indigenes are unhappy about being stopped by the government from engaging in ‘illegal’ small-scale mining. Many indigenes feel that stopping them from engaging in small-scale mining has taken away their livelihoods. There is a latent conflict between the indigenes, the mining company and the security personnel stationed in the communities to enforce the government’s ban on illegal mining. Indigenes find it difficult to defend and protect their lands and vegetation. If steps are not taken by the mining firm to provide opportunities for the indigenes of the mining communities to engage in employable and economic activities, it will worsen the already tensed relationship between indigenes and the company which could lead to violent conflict. Community engagement will probably build understanding between the mining firm and the indigenes. Platforms should be created for host communities and the operating mining firm to interact to address grievances arising out of the mineral exploration in the Chere community. The mining company should also be more proactive in its corporate social responsibility (CSR) in the Nadowli district.

REFERENCES

- Buxton, A. (2013). *Responding to the challenge of artisanal and small-scale mining. How can knowledge networks help?* London: IIED.
- Carvalho, F. P. (2017). Mining industry and sustainable development: time for change. *Food and Energy Security*, Vol. 6, No. 2, pp. 61–77.
- Centre for Environmental Rights and Lawyers for Human Rights (2013). *Mining and your Community: Know your Environmental Rights*.
- Cooper, T. & Harvey, R. (2018). *Mining the socio-economic benefits of the extractive industries*. South African Institute of International Affairs, Policy Insights 55.
- Kadiresan, K. (2012). 7th Regional Meeting (Southern Africa) of the ACP-EU Joint Parliamentary Assembly. *The Challenge of Mineral Resource Exploitation and its Contribution to Development in the Region*. Lusaka, 22-24 February 2012.
- Ledwaba, P. & Nhlengetwa, K. (2015). When policy is not enough: Prospects and challenges of artisanal and small-scale mining in South Africa. *Journal of Sustainable Development Law & Policy*, Vol. 7, No. 1, pp. 25-42.
- MacLean, H. L., Duchin, R. F., Hagelüken, C., Halada, K., Kesler, S., Moriguchi, Y., Mueller, D., Norgate, T.,

- Reuter, M. & Voet, E. (2010). *Mineral Resources: Stocks, Flows, and Prospects*. Working Papers in Economics.
- Mkubukeli, Z. & Tengeh, R. (2016). Prospects and Challenges for Small-Scale Mining Entrepreneurs in South Africa. *Journal of Entrepreneurship & Organization Management*, Vol. 5, No. 4, pp. 1-10.
- Mining, Minerals and Sustainable Development Project (2002). *Breaking New Ground*. The Report of the Mining, Minerals and Sustainable Development Project. London: Earthscan Publications Ltd.
- Mensah1, A. K., Mahiri, I. O., Owusu, O., Mireku, O. D., Wireko, I., & Kissi, E. A. (2015). Environmental Impacts of Mining: A Study of Mining Communities in Ghana. *Applied Ecology and Environmental Sciences*, Vol. 3, No. 3, pp. 81-94.
- Nangwele, L. (2019). Human Rights and Human Responsibilities: A Call for an Ethical Response to the Environmental crisis in Ghana. *Issues in Conflict, Human Rights and Peace*, Vol. 1, No. 1, pp. 80-93.
- Que, S., Wang, L., Awuah-Offei, K., Chen, Y. & Yang, W. (2018). The Status of the Local Community in Mining Sustainable Development beyond the Triple Bottom Line. *Sustainability*, Vol. 10, 1749, pp. 1-11. doi: 10.3390/su10061749.
- Söderholm, P. & Svahn, N. (2014). *Mining and sustainable development. Mining, Regional Development and Benefit-Sharing*. Luleå: Luleå University of Technology.
- Stark, J., Li, J. & Terasawa, K. (2006). *Environmental Safeguards and Community Benefits in Mining: Recent Lessons from the Philippines*. Working Paper No. 1.
- Twerefou, D. K., Tutu, K., Owusu-Afriyie, J. & Adjei-Mantey, K. (2015). *Attitudes of Local People to Mining Policies and Interventions*. International Growth Centre, Working paper, E-33107-GHA-1.
- United Nations Economic Commission for Africa (2011). *Minerals and Africa's Development*. The International Study Group Report on Africa's Mineral Regimes. Ethiopia: Economic Commission for Africa.
- Yeboah, J. Y. (2008). *Environmental and health impact of mining on surrounding communities: A case study of Anglogold Ashanti in Obuasi*. A thesis, Kwame Nkrumah University of Science and Technology, Ghana.