

International Journal of the Commons

Vol. 12, no 1 2018, pp. 1–25

Publisher: Uopen Journals

URL:<http://www.thecommonsjournal.org>

DOI: 10.18352/ijc.757

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ISSN: 1875-0281

Dynamics of community perceptions, common resources and compensation practices in mining: the case of Newmont Ghana Gold Ltd at Ahafo

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Abstract: A critical issue confronting the mining industry and communities in Ghana is compensation for loss of land rights in mining activities. The 1992 Constitution and the Minerals and Mining Act, 2006 (Act 703) both require compensation for the expropriated to be fair, adequate and promptly paid. However, fairness, adequacy and promptness are normative value judgments predicated on stakeholders' perceptions. This makes controversies over compensation issues inevitable and in mining communities these are rife because of increased competition between mines and communities for land and the legal provision that the payment of compensation rests with mining companies negotiating with the expropriated. Using Newmont Ghana Gold Ltd at Ahafo, we analyzed data from a sample of 120 stakeholders in four mining communities which revealed a wide divergence between communities' perceptions and mining company compensation practices, and weak enforcement of mining legislation. Communities were also not well resourced to negotiate for compensation with the transnational corporation. Also, we argue that the principles applied in compensation assessment as provided by law, especially in the case of common resources, contribute to unfairness and inadequacy in compensation for the expropriated. We conclude that this imbalance has negative implications for community-mining company relations and threatens sustainable mining operations. We therefore recommend the rigorous enforcement of legislation, introduction of appropriate governmental and mining company initiatives in building capacities of communities for improved negotiations for compensation, legal recognition of common resources

as valuable community assets for compensation, the application of the investment approach to compensation valuation and improved CSR packages by mines as means of bridging the gap between communities' perceptions and compensation practices and ensuring improved company-community relations in the mining industry.

Keywords: Common resources, community perceptions, compensation practices, mining, Newmont Ghana Gold Ltd

Acknowledgements: We wish to acknowledge the permission granted by Newmont Ghana Gold Ltd in undertaking this study and also its staff to undertake this investigation with the view to improving on company and community relations. We are also grateful to the respondents of the study for their cooperation and time, without which this study would not have been possible. Two anonymous reviewers made constructive comments towards the improved quality of the paper and to them we are most grateful.

1. Introduction

Mines demand significant areas to operate and the indigenous people of surrounding communities also depend largely upon the land for their livelihoods. Recent growth in Foreign Direct Investment (FDI) in Ghana has therefore led to increased competition for land between mines and communities with high potential for conflicts (Hilson 2002). As governmental intervention is often miniscule, most of the responsibility rests with mine management to ensure that land use conflicts are effectively resolved (*ibid*). An important cause of these land use conflicts is compensation for individual land rights and common property resources of community members.

The role of mines in compensation is critical to compensation-induced conflicts because they are a prime player in the expropriation of land holders across Africa (Kidido et al. 2015). Yet, earlier studies in relation to this "land rush" in Ghana have looked at the social and environmental consequences of large-scale land acquisitions (Tsikata and Yaro 2011); the land governance challenges that these processes raise (German et al. 2011) and the linkages between mining, sustainable development and health (Yelpaala 2004). Only a few studies such as Kidido et al. (2015) focused on the rightful recipients of mining compensation for land use deprivation and Ayitey et al. (2011) on the law and practice in compensation for land use deprivation in mining communities. There is, therefore, a paucity of information in the area of communities' perceptions and compensation practices of mining companies to better understand the dynamics and how the associated consequences could be addressed.

The significance of this study is captured in Peters' (2012) remark that the main cause for alarm in the rush to acquire land in Africa is the *fate of the people* who have been using the land, especially the implications for their livelihoods and

rights to property. This *fate of the people* as Peters puts it in relation to livelihoods and property rights, is anchored on communities' perceptions for compensation when expropriated of individual and common land resources. As Alden Wily (2008) reiterated, customarily land is ownable not just by individuals and families but by interest groups, clans and tribes, social formations that both in the past and present correlate with communities.

There is abundant evidence of the legal recognition of land rights in Ghana as enshrined in the 1992 Constitution, the national land policy and other relevant statutory enactments (Bugri 2012). That notwithstanding, how these land rights are protected regarding expropriation and compensation for the expropriated has been questioned (Ayitey et al. 2011; Shoneveld and German 2014). For example, though legislation requires compensation for expropriated land rights to be *fair, adequate and promptly* paid; these adjectives are normative value judgments predicated on stakeholders' perceptions and no standards exist for compliance. Under the Minerals and Mining Act, 2006 (Act 703), section 73(3) states that the amount of compensation payable shall be determined by agreement between the parties but if the parties are unable to reach an agreement as to the amount of compensation, the matter shall be referred by either party to the Minister. However, there are questions of whether or not the community can engage in win-win negotiations with mining companies. With multiple pressures on land, scarcity value arises and this results in higher expectations in compensation by the expropriated. Yet, local communities lack the relevant valuation expertise to inform their decision-making in negotiations with mining companies for compensation. It is therefore common to have controversies over compensation issues in Ghana and these do not augur well for mining company-community relations. For example, as Boone observed in a study of southern Ghana:

Conflict over land has been a pervasive feature of life in rural and peri-urban parts of southern Ghana for many decades. Today, the stakes and tensions are heightened by rising land values, demographic increase and urban sprawl, and broader changes in the national economy that conspire to place rural families in situations of land shortage...[t]he character of the land tenure regime goes very far in defining the socio-economic contours of this process (Boone 2009).

This observation highlights the crucial nature of the issue of perceptions of compensation of the expropriated. In this respect, Moffat and Zhang (2014) observed that it is increasingly evident in mining that obtaining a formal licence to operate from governments and meeting regulatory requirements is no longer enough for peaceful co-existence between mining companies and communities; underscoring the importance of corporate social responsibility (CSR). Using Newmont Ghana Gold Ltd (NGGL) at Ahafo as a case study, this paper explores the dynamics of community perceptions in mining industry compensation practices, highlighting the case of common resources. In the rest of the paper, a review of relevant literature to put the issues of investigation in context is presented in Section 2. The

methodology applied in the study, including a brief profile of NGGL and the study area is detailed in Section 3. The results and discussion are reported in Section 4. Finally, the conclusions with recommendations are made in Section 5.

2. Review of literature

2.1. Regulatory environment for compensation in mining communities

If mining must continue in Ghana because of its financial benefits to the nation, then the land rights of the expropriated in mining communities must be compensated for within the context of an improved regulatory environment for compensation practices.

The current Ghanaian regulatory environment for compensation for loss of land rights in mining communities has two key enactments: the Minerals and Mining Act, 2006 (Act 703) and relevant provisions of the 1992 Constitution of the Republic of Ghana. According to both sources, the ownership of minerals in Ghana is vested in the President and held in trust for the citizens of Ghana. Section 1 of Act 703 reproduces Article 257 (6) of the Constitution which states:

Every mineral in its natural state in, under or upon land in Ghana, rivers, streams, water-courses, throughout the country, the exclusive economic zone and area covered by the territorial sea or continental shelf is the property of the Republic and is vested in the President in trust for the people of Ghana.

The interpretation section of Act 703 stipulates that “mineral” means a substance in solid or liquid form that occurs naturally in or on the earth, or on or under the seabed, formed by or subject to geological process including industrial minerals but does not include petroleum as defined in the Petroleum (Exploration and Production) Law, 1984 (P.N.D.C.L. 84) or water.

Mining leases of 30 year durations at a time are thus acquired from the State through the Minerals Commission and section 9 (1) of Act 703 stipulates that:

Despite a right or title a person may have to land in, upon or under which minerals are situated, a person shall not conduct activities on or over the land in Ghana for the search, reconnaissance, prospecting, exploration or mining for a mineral unless the person has been granted a mineral right in accordance with (the) Act.

In its section 74 (1), Act 703 provides that the compensation to which an owner or lawful occupier may be entitled, may include compensation for:

- (a) Deprivation of the use or a particular use of the natural surface of the land or part of the land,
- (b) Loss of damage to immovable properties,

- (c) In the case of land under cultivation, loss of earning or sustenance suffered by the owner or lawful occupier, having regard to the nature of the interest in the land,
- (d) Loss of expected income, depending on the nature of crops on the land and their life expectancy.

In the context of earlier legislation for compensation in mining, compensation for the deprivation of use rights to land is a welcome improvement towards meeting the constitutional provision for compensation to be fair, adequate and promptly paid. However, section 74 (1) of Act 703 has created its own impediment in fulfilling the constitutional provision on compensation. It does so by excluding a claim for compensation “*for loss of damage for which compensation cannot be assessed according to legal principles in monetary terms*”. This is where common resources, for example, forests products and services, get caught because they are perceived as having market values that cannot be easily ascertained and their ownership claims having legal difficulties.

Though section 74(1) specifically makes the case for compensation for deprivation of use rights in mining, no such provision exists in other cases of expropriation, for example, under the State Lands Act, 1962 (Act 125) used for compulsory acquisition of land by the State. Here, compensation does not arise for the deprivation of land use (Larbi 2008). Also, no legislation provides for unpaid or delayed compensation payments to attract interest at prevailing commercial rates. Bugri and Yuonayel (2016) in this regard have argued that the practice of applying Treasury Bill (TB) rates as interest on delayed compensation payments to counter the effect of inflation is inappropriate because TB rates are normally lower than commercial interest rates.

A study by the Ghana Chamber of Mines (2008) to provide guidelines for clear compensation mechanisms to reduce litigation and ensure that affected communities are not made worse off found that about 84% of compensation recipients claimed that the values of their compensation packages received were below the losses they had suffered. The study further pointed out that over 34% of respondents recommended that compensation should not only be cash payments but it should include alternative lands to keep local residents, particularly farmers, in business to sustain their livelihoods.

Another crucial factor in Ghana’s regulatory environment in mining has to do with weak enforcement. The effectiveness of Ghana’s mining legislation has been questioned. As Agyei (2016) put it, “[a] major weakness of Ghana is bad governance perpetuated by corrupt political elite and ineffective public institutions”. For example, section 83 (a) of Act 703 stipulates that: “A licence for small scale mining operation shall not be granted to a person unless that person is a citizen of Ghana”. The presence of Chinese small scale miners in Ghana has grown to the extent that some have formed joint ventures with Ghanaians while others have acquired their own concessions and are operating their own mines (Agyei 2016).

2.2. Compensation, common resources and benefits sharing

The mining industry in Ghana takes place in most instances in space already occupied, used, claimed and governed by indigenous people with prior claims and uses related to common resources grounded in law or custom. Conflicts over land use reflect struggles among these different actors to gain access and control over these resources and are mediated by the operation of institutions of property (Cuba et al. 2014). In Ghana, monetary compensation has often been used to settle the claims of property rights holders who lose in the mediation process by property institutions, but there is now a growing body of literature on the question of the acceptability of monetary valuation for compensation (see Shrader-Frechette 2002; Ghana Chamber of Mines 2008; Farrell 2014).

Property institutions in Ghana are characterized by different corporate tenure groups. It is important to state that the cardinal principle of customary tenure is that the allodial (highest) interest is vested in the head of each corporate tenure group, chiefs in the case of stools and skins and clan/family heads in the case of clan/family lands as fiduciaries or trustees (Asante 1975). All other rights to land derive from the allodial interest. These include the usufructuary interest (customary freehold), and the holder of this interest is in a beneficial occupation of the land in respect of which the interest is held and can transfer it to his successors in title. Leaseholds and customary tenancies are other examples of rights to land in Ghana. Customary tenure is therefore communal in nature with a nested hierarchy of land rights. It is within this regime of tenure that common resources arise. The difference between communal land and common property resources can therefore be confusing. Alden Wily (2008) traced the root of this conceptual confusion to Hardin's (1968) 'tragedy of the commons' which was expounded so influentially but is now known to have been 'open access' that was described (Quan 2000). The reality is that both communal lands and common resources are the shared property of communities. For the purposes of this paper, we adopt Cotula's (2004) definition of a common resource as the natural resource over which several users have overlapping rights of simultaneous or sequential use regardless of the economic nature of the resource or the property regime applicable to it. This includes water bodies, fisheries, forestry, wildlife, pasture and genetic resources upon which communities' livelihoods depend to a large extent. Yet, as noted by Cotula (2004), the economic benefits stemming from common resources are notoriously underestimated due to their often non-monetary nature as reflected in the provision of section 74 (1) of Act 703 above. According to Fraser (2001), the dependency of communities on land and water is not recognized if such resources are not valued for compensation. In contemporary compensation discourses, if even monetary compensation was paid to cover all land rights lost (individual and common) the question of whether monetary compensation is acceptable at all has become relevant. Ghana's mining regulations assume that compensation (monetary or resettlement) is a sufficient remedy to the harm inflicted on affected communities. This assumption in the view of Shrader-Frechette (2002) makes

monetary compensation or potential benefits a justification for uneven distribution of environmental burdens and thus unacceptable. Similarly, Martinez-Alier (2001) argued that the payment of a fine is seen as an entitlement to inflict harm on others and therefore unacceptable.

Based on the above, if compensation for communal land and common resources is viewed as a benefit that has to be shared by the community, then the institutional regime of property rights has to be respected. If communal lands are the case in point for compensation for deprivation of land use rights, corporate tenure heads and land use rights holders as usufructs or other lesser rights holders have stakes in the benefit sharing. In the case of corporate tenure heads such as chiefs, clan/family heads, the value of the reversionary interest is the compensation due them. On the other hand, the amount of loss of use right will vary according to the nature of the right lost for the usufruct and other right holder. In Ghana, issues of compensation are a matter of power dynamics between the different land rights holders in the various corporate tenure groups. Many chiefs in Ghana have been quick to reconstruct custom to indicate themselves as outright owners of community properties, not as trustees for community members precisely in order to capture most benefits of land resources (Alden Wily 2008). Accordingly, Kidido et al. (2015) have argued that the rightful recipients of compensation should be ascertained with a high degree of certainty and not left to the dictates of the largely ambiguous customary rules where the power of chiefs is disproportionately higher than their subject usufructs. For example lesser land right holders such as non-indigenous people (in-migrants) popularly called 'strangers' are often denied compensation for land use deprivation irrespective of how long they have stayed in the locality and used the land for their livelihoods. The regulatory environment for mining does have serious compensation difficulties, especially with common resources. Common resources have ownership in the community, their values can be assessed for compensation purposes and policy and legislation must recognize these.

2.3. Compensation, displacement and resettlement

According to Terminski (2012) mining-induced displacements is a common problem in developing countries. Twerefou et al. (2015) underscored this problem with the assertion that in developing countries such displacements lead to negative consequences due to poor monitoring of compensation and resettlement programmes. Owen and Kemp (2014) argued that household dependency increases as people are displaced but mining companies may provide resettlement packages that ease only short-term tensions and help ease their access to land for mining, a recipe for future conflicts between mines and resettlement communities. Cernia (2008) advocated for compensation and benefit sharing reforms in resettlement policies and practices towards making displaced populations attain sustainable livelihoods in resettlement communities. The author argued that compensation alone is inadequate to prevent impoverishment of resettled communities; neither can compensation alone

restore livelihoods lost in the host communities. Twerefou et al. (2015) observed that, though some mining companies in Ghana have made attempts at properly resettling people affected by mining, social, behavioural and cultural problems have largely been ignored in the design and planning of resettlement schemes.

2.4. Mining and corporate social responsibility

The mining industry in Ghana is characterized as large-scale and small-scale. According to Hentschel et al. (2003), irrespective of one's perspective of the sector's contribution to sustainable development, the fact remains that mining activities will continue for as long as mineral deposits and poverty exist. According to Hilson (2002) increases in both small-scale and large-scale mining activities have led to an intensification of conflict in areas surrounding operations over access to mineral-rich lands. Patel et al. (2016) based on available dates; provide a typology of some 37 mining-related conflicts in Ghana between 1990 and 2014 as reported in the literature, media, and online databases and by NGOs. Of Ghana's land area of 238,540 sq km, about 25% has been demarcated for prospecting, reconnaissance or mining activities (Cuba et al. 2014). The Ghana Chamber of Mines (2014) indicated that the mining and quarrying sectors accounted for about 9.5% and 9.8% of Gross Domestic Product (GDP) in 2012 and 2013 respectively. In 2011, export revenues from the mining sector amounted to over US\$5 billion, mining contributed about 17.5% of Ghana's total corporate tax earnings and 28.3% of government revenue in 2012, about 28,000 people are employed in the large-scale and mine support services industry, and over 1,000,000 people are engaged in the small-scale gold, diamond, sand winning and quarry industries (Daily Guide 2012).

The associated social, physical and environmental repercussions of mining cannot however be over-emphasized. This affirms the observation by Glasson et al. (2005) that the natural environment is the "sink" for the wastes and the "source" for the resources. Ghana is paying the price for the financial benefits brought about by mining in the form of serious land degradation, air and water pollution as well as exploitation of cheap labour for mining operations at the expense of agriculture. Consequently, the growing pace of mining activities in Ghana though a contributor to economic development, is gradually denying the country of its agricultural resource base especially in mining communities. This has negative consequences for livelihoods of the expropriated. Indeed, it has been noted that despite the macroeconomic benefits of mining, the sector has generally failed to reduce poverty and mitigate the associated pressures of displacement and resettlement, job loss and environmental pollution in rural communities and around operations (Hilson 2004; Ayelazuno 2014). The result of this is increased social conflict as local communities express their frustration over the negative effects of the industry (Bebbington et al. 2014).

In a bid to address the bad image of the industry, mines have gone beyond the legal requirements of compensation to the expropriated, to the use of CSR packages as measures of peace building and conflict prevention. Amponsah-Tawiah and

Dartey-Baah (2011) and Issifu (2016) contend that notwithstanding the absence of CSR legislation to make it mandatory, mining companies in Ghana have undertaken numerous CSR initiatives towards peace building, conflict prevention and community development. According to GEITI (2015) mining industries committed US\$26 million to various CSR initiatives in 2012. These include the provision of amenities such as roads, power, potable water, sanitation, vehicles, schools and educational scholarships, among others, to their communities of operation. These CSR packages in mining communities could be seen as a mitigation measure for some of the compensation problems related to expropriation of common property resources. Additionally, their potential for reduction in conflicts in land use, improved trust building between mines and communities could lead to enhanced understanding and cooperation in compensation practices.

3. Approach and methodology

3.1. Brief profile of Newmont Ghana Gold Ltd and study area

The NGGL Ahafo mine is located in the Brong Ahafo Region of Ghana (Figure 1). The project area is located approximately 300 km northwest of the national capital, Accra; 107 km northwest of Kumasi, the Ashanti Regional capital and 55 km south of Sunyani, the Brong Ahafo Regional capital (see Figure 1). The Ahafo

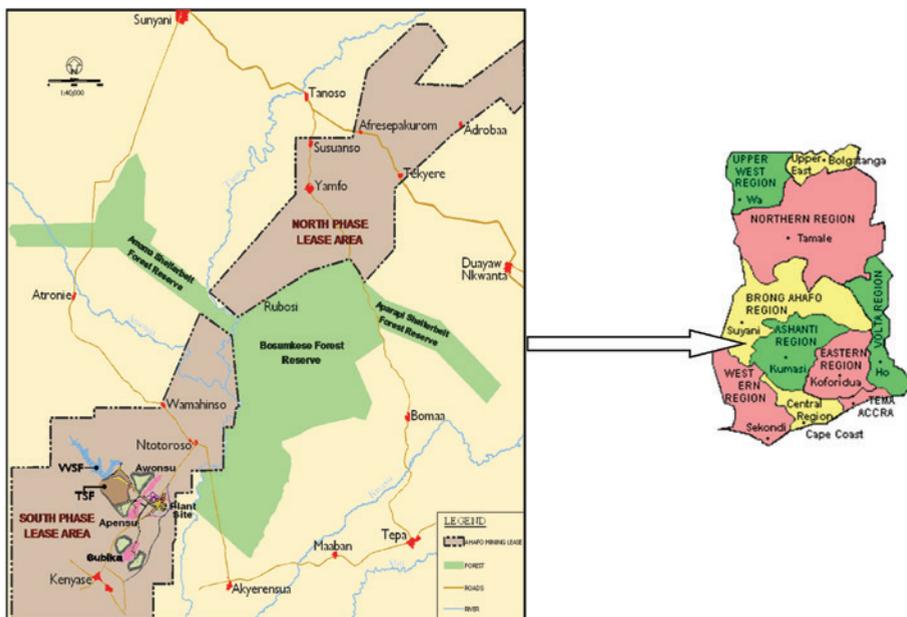


Figure 1: Map indicating the location of the NGGL at Ahafo operational areas. Source: (NGGL 2009).

Project currently involves 774 square kilometers of land covered by mining and prospecting licenses and 834 square kilometers of land covered by reconnaissance licenses. It is separated into two components, Ahafo North and Ahafo South and consists of 11 mining pits. The mineral revenue from NGGL Ahafo mine was US\$793,670,767 and US\$565,732,824 in 2013 and 2014 respectively (Ghana Chamber of Mines 2014). NGGL Ahafo has a population of about 12,000 Project Impacted People (PIPs). Of these, 71% (8520) are indigenous and 29% (3480) non-indigenous people (NGGL 2010). A sample size of 120 of the population was however selected for the study.

The Brong Ahafo region has over twenty ethnic groups including Bonos, Akans, Dagaatis, Gonjas, Dagombas, Bassaris, Ewes, Sisalas and Mamprusis with their own cultural identities and traditional heads. The Bonos are the natives of the land or indigenous people with their own unique traditions and culture (GSS 2012). The region is noted for agricultural production in Ghana and is estimated to account for 30% of food production in the country (Plan Alliance 2005). This is due to prevailing favourable weather and climatic conditions for agricultural production. The economy of the area is dominated by subsistence agriculture and forestry followed by industry, service and commerce. In the industry sectors, mining plays an important role and NGGL is a key driver of this process. The taking of agricultural land for mining activities has negatively impacted agricultural production and brought about negative environmental consequences. Common resources are fast disappearing due to mining activities. The mining communities of Ola and Ntoroso selected for the study are resettlement communities by NGGL.

The physical landscape of the settlements is generally undulating and is drained by rivers and streams. The Tano River is the main river for drainage, and is about 512 km long and the third largest river in Ghana. It has a drainage area of approximately 16,060 km². The River also serves as the main source of drinking water for several towns and villages (NGGL 2007). The vegetation of the area consists of tropical rain forest, mosaic of fallow and crop land and plantations of exotic timber species including teak. The fauna include small and large mammals and special status species of bats and birds (*ibid*).

The communities operate similar frameworks of legal, political and cultural authority. In the Ahafo area, the customary land tenure practices are predominant. In addition to national democratic governance, the traditional political structure which is basically the chieftaincy institution is central to land governance activities. Here, the allodial title is vested in the chiefs as custodians of the land and it is chiefs who undertake land allocation responsibilities over communal lands.

3.2. Methodology

This study adopted a largely qualitative approach in the collection of data. The process of data collection took place from March to July 2013. Both semi-structured interviews and Focus Group Discussions (FGDs) were used in data

collection. The sequence was the semi-structured interviews first, followed by the FGDs. These data collection instruments were considered appropriate for the study because they allow for assessment of people's experiences and perceptions (Saunders 2005). Interviews provide deep and meaningful data that reveal each individual's perspective on the issues investigated. The FGDs were held with identifiable stakeholders in groups of 3–5 within the study communities to reach consensus on matters of divergence. The stakeholders included traditional authorities, expropriated landowners or users, staff of the NGGL Ahafo, local government staff, civil society organizations, youth representatives and government valuers. No interpreters were used in the data collection because the researchers could communicate with the stakeholders in either English or Twi (the commonly spoken local language) in the study communities. Interviews and FGDs were audio recorded and comprehensive notes of responses were also taken in field notebooks by researchers. The audio recordings were later transcribed and synthesized with field notes for analysis.

The sample size of 120 was purposively selected. A weakness of purposive sampling for studies is the smallness of the sample size that has potential for lack of representativeness and therefore inability to generalize findings. However, this weakness was mitigated by purposively selecting key informants affected by the subject of investigation who could respond to the research questions.

A key consideration in this study was therefore selection of the right respondents. Criterion sampling which involves selecting participants in locations that satisfy some pre-determined criteria was used. Research has shown that the impact of mining activity goes beyond the immediate community of the project site. However such impacts decrease with distance from the mine site (Rickson et al. 1995). Hence proximity to the mine site was taken as a criterion for the selection of study communities. Thus communities within a 7 km radius of the mine were considered suitable for sample participant selection, with emphasis on people who suffered from expropriation of land for the use of NGGL. Thus, the severity in impact of the mine on the community was considered a critical factor. This led to selection of four communities; three from Ahafo South district and one from the Ahafo North district of the mine. The participants selected were individuals who experienced varying impacts such as damage to crops or deprivation of land use and consequently had received monetary compensation or were resettled by NGGL. Table 1 displays the study participants and communities.

Purposive sampling was also applied in the selection of respondents. The total sample of 120 respondents comprised 110 key respondents from the project affected communities, six (6) from NGGL and four (4) from government agencies and NGOs. The selection of both indigenous and non-indigenous people was seen as critical to the richness of data. As asserted by Akabzaa and Darimani (2001), the problem with land compensation can often be traced to local leaders since "the land is traditionally held by the chiefs in trust for the people". Aubynn (2003) also states a number of reasons why such participants are preferred respondents in a

Table 1: Study participants and communities.

| Company | Community and others | Sample size |
|---------|---|-------------|
| NGGL | Ola and Ntotroso Resettlement Communities | 20 |
| | Crop compensated farmers | 30 |
| | Deprivation of land use compensated farmers | 20 |
| | Structures and immovable property compensated | 30 |
| | Representatives from stakeholder committee on resettlement and immovable property negotiation | 3 |
| | Representatives from stakeholder committee on crop compensation negotiation | 3 |
| | Chief farmers in the area | 2 |
| | Local government representatives and relevant NGOs | 4 |
| | Representatives of Land Valuation Division of the Lands Commission and Practicing Valuers | 2 |
| | Representatives from NGGL | 6 |
| | Total sample size | 120 |

study like this. Firstly, they are commonly used in socio-economic impact studies on resource development; secondly, they are normally resident in the community and are mostly directly impacted by the project; thirdly, they mostly have special insights into companies' impacts on their communities; fourthly, they often become opinion leaders and are used as liaisons between mining companies and mining communities to hear and resolve complaints. The study however deemed it important to include non-indigenous people in the sample because they have limited access to land for secure livelihoods and are often marginalized in compensation for loss of their use rights to land that has become expropriated for mining. The sample of PIPs was therefore made of 40% indigenous and 60% non-indigenous people to reflect the above considerations.

In the analysis of data an integrated strategy for both qualitative and quantitative data was adopted. The qualitative data analysis required transforming complex interview data in a refined and presentable form that makes sense to readers. Thus detection, defining, categorizing, explaining, exploring and mapping of themes or patterns was used in this study following Neuman (2000) and Huberman and Miles (2002). Also, SPSS was applied on the quantitative data obtained from the field for descriptive statistical analysis using frequency tables and percentages as appropriate.

4. Results and discussion

4.1. Characteristics of respondents

Results from the sample of 120 respondents in Table 2 show 62.5% male and 37.5% female. The major means of livelihood of these respondents was farming. Most respondents, 74.2 % were in the age range of 21–60 years and thus constituted a vital source of labour for farming activities. The deprivation of land

Table 2: The socio-demographic characteristics of respondents.

| Variables | Frequency | Percent |
|-----------------------|-----------|---------|
| Gender of respondents | | |
| Male | 75 | 62.5 |
| Female | 45 | 37.5 |
| Total | 120 | 100.0 |
| Age of respondents | | |
| 21–60 years | 89 | 74.2 |
| 60+ years | 31 | 25.8 |
| Total | 120 | 100.0 |
| Marital status | | |
| Single | 37 | 30.8 |
| Married | 83 | 69.2 |
| Total | 120 | 100.0 |
| Educational level | | |
| No formal education | 51 | 45.5 |
| Basic education | 37 | 33.0 |
| Secondary education | 21 | 18.8 |
| Tertiary education | 3 | 2.7 |
| Total | 112 | 100.0 |
| Indigenous status | | |
| Indigenous | 48 | 40.0 |
| Non-indigenous | 72 | 60.0 |
| Total | 120 | 100.0 |

use rights to farmlands of such vital labour has implications for food security. With declining food production arising from reduced sizes of farmlands or total inability to access new farmlands, comes higher expectations for better compensation for land rights lost. Another implication for loss of farmlands to mining is increased demand for common resources of communities to satisfy livelihood needs and hence increased existing use value for common resources in communities affected by mining activities.

Of the 112 respondents from the sample who were PIPs, 40% were indigenous people, while 60% were long-term migrants (non-indigenous) to the area who were deriving their sources of livelihood from lands impacted by the mine. Indigenous people have usufructuary interests (customary freeholds) in land. This is an interest in land held by subgroups and individuals acknowledged to be in the allodial ownership of a community of which they are members. The holder of this interest is in a beneficial occupation of the land in respect of which the interest is held and can transfer it to his successors in title. The interest is held for an indefinite duration and prevails against the whole world, including the allodial title from which it derives (Asante 1975). Non-indigenous people normally enter into customary tenancies. These customary tenancies are lesser interests deriving from contractual arrangements between an allodial, customary freeholder or a lessee on the one hand; and a tenant-farmer on the other. Typically, a specified portion of the farm produce is agreed upon to be given to the landowner or landlord in exchange

for the release of the land and possibly other farm inputs contributed to the tenant-farmer to work with. The common sharing arrangements are ratios of 1:2 and 1:1 and popularly referred to as *abusa* and *abunu* arrangements respectively in Akan speaking communities (Bugri 2012). There are other forms of contractual agreements in which the consideration is not produce from the farm, but money or even the sharing of the farm itself or the land (Ruf 2009). None of respondents from government institution/NGOs and the company was a native of any of the sample communities.

The educational background of respondents was seen as a key indicator of their knowledge of legislative and policy issues regarding compensation. Yet, the educational background of the 112 PIPs was found to be generally low. Nearly half of the sampled PIPs (45.5%) had no formal education. Those with basic education were 33% of the sample. Only three (3) of the PIPs, representing 2.7% of the sample had tertiary education. In contrast, all the six (6) company representatives had tertiary level education. The proportion of PIPs without formal education and with only basic education (78.5%) highlights potential capacity weaknesses of mining communities to undertake negotiations for compensation. While it is true that the lack of education does not automatically translate into lack of negotiating skills nor is it, on its own, a sign of lack of economic capacity, it nevertheless can equip PIPs with the relevant information on which to base their negotiation decisions. The detailed analysis of respondents' educational levels for awareness of legislation on land expropriation and compensation is seen below.

4.2. Respondents level of awareness on expropriation and compensation issues

Respondents were asked to rate their level of awareness on relevant legislation in land expropriation and compensation in mining (Table 3). Awareness here refers to their knowledge of legislation affecting land expropriation and compensation

Table 3: Level of respondents awareness on compensation legislation.

| Awareness on land expropriation and compensation legislation | | | |
|---|---|---|---------------------------|
| Issues | The relevant legal provisions on compensation (%) | General idea of legal documents on compensation (%) | Right to compensation (%) |
| PIPs with moderate level of awareness (% of 112 respondents) | 33.9 | 61.6 | 74.1 |
| PIPs without awareness or of limited awareness (% of 112 respondents) | 55.4 | 35.7 | 25.9 |
| Company respondents' awareness (% of 6 respondents) | 83 | 100 | 100 |
| Company respondents without awareness (% of 6 respondents) | 17 | 0.00 | 0.00 |

for the land rights lost as gathered from data. It was found as shown in Table 3 that PIPs had little knowledge in land expropriation for mining. Out of the 112 PIPs, 55.4% indicated they had none or limited knowledge on the existing legislation on land expropriation or compensation. However, 33.9% claimed moderate level of awareness of such legislation. Of those who had moderate level of awareness of the legislation, 61.6% of them were able to state specific documents such as the 1992 Constitution and the Minerals and Mining Act, 2006 (Act 703) as examples of legal documents that relate to land expropriation and compensation in mining.

It was also revealed that 74.1% of PIPs were of the view that project impacted people have the right to compensation for any loss they may suffer upon expropriation of land for mining activities. However 25.9% of PIPs did not have any idea of their existing rights to compensation. It can be deduced from the data that if 55% of PIPs had some form of formal education and 45% had no formal education, but knowledge of expropriation and compensation issues was 74% among PIPs; then the likely scenarios are as follows. First, on the basis of an even split, respondents who had education with knowledge is 41%, while those without education but with knowledge is 33%. Secondly, if all educated respondents (55%) had knowledge, then respondents without education but with knowledge is 19%. Thirdly, if all respondents without education (45%) had knowledge, then only 29% of the educated had knowledge. This analysis shows that between 19 and 45% of respondents without education had knowledge of issues related to expropriation and compensation. The result was better than expected and surprising. Plausible explanations for some illiterates being aware of their rights to compensation could be the long history of mining activities in the area and the length of time they have lived there to have become aware of such issues. Meanwhile, five (5) of the company's six (6) respondents were found to be well informed on the various statutes and the principles in land expropriation and compensation. This was expected and possibly explains why 85% of the PIPs who claimed awareness of legislation on expropriation and compensation identified company staff as their source of that knowledge.

Results on stakeholders' knowledge on how NGGL acquired the land for mining also showed that, of the 120 respondents; 44.6% were of the view that the company secured the relevant authorization or permits from the government and had paid relevant compensation to all PIPs. As one PIP stated:

The mine officers came suddenly to inform us of the permit they have obtained from the government to take our land; asked us to stop land use activities and immediately started their survey work. Later cheques were issued for compensation (Interview with a PIP farmer 2011).

The above assertion was corroborated in FGDs in which PIPs were of consensus that the mine simply announced to them that they should stop work on their lands because it had secured a permit to take over the land for mine activities.

When the PIPs were asked about how compliant NGGL was to Ghanaian laws on land expropriation and compensation, 75.9% indicated the company was fully compliant; 14.3% were of the view that the company was sometimes not compliant; while 6.2% stated that the company is totally non-compliant. However, when it was specifically asked whether the company applies all compensation principles in the assessment of compensation payable, 95% of respondents said that NGGL was not fully compliant in that regard. This result was also the consensus view in the FGDs that involved both indigenous and non-indigenous people and is indicative of a wide divergence gap between expectations of PIPs for compensation and company compensation practices. This provides the grounds for controversies and possible conflicts with negative implications for trust in company and community relations. Trust is featured centrally in discussions of social licence to operate in mining communities (Thompson and Boutilier 2011). Moffat and Zhang (2014) define trust as having confidence that the behaviour of an outgroup will match expectations of the trust holder. The process of working relations is a critical underpinning of the trust level between or among parties.

The land compensation assessment process applied by NGGL as revealed in field discussions consisted of five (5) stages. First, upon receipt of a mining permit to enter a piece of land, an enumeration exercise for field data is undertaken. This is in compliance with the provisions of section 73 of the Minerals and Mining Act, 2006 (Act 703). The exercise per Act 703 requires the involvement of the mine and the owner or lawful occupier or accredited representative of the owner or lawful occupier of the land, undertaking crops and structures enumeration sometimes with support of staff of the Land Valuation Division of the Lands Commission. This assessment or survey was found at the time of this research to be led by a qualified surveyor hired by NGGL. The process involved two main types of crop assessment methods: the Head Count Method/Tree Counting Method and the Acreage Method. In the former, each crop is counted while the latter uses the planting density population for an acre of crop and the figure multiplied by an applicable rate to arrive at compensation value. Structures affected are differently and individually referenced and valued for compensation per applicable valuation methodology. The second stage after data collection is the analysis of data. However field investigations revealed that data gathered was controlled and analyzed by the company. The PIPs only got to know the processed information during the negotiations. Following the data analysis a committee comprising the representatives of PIPs, traditional authorities, the company and local government authorities negotiate on the compensation assessed as the third stage of the process. At stage four of the process, agreed crop rates between the community and the mining company are then multiplied by the applicable number of crops or crop density for each farm to arrive at compensation payable. An affected farmer is given a note to indicate the amount of or would-be crop damage value of compensation for actual payment in a period of three months from date of issuance of the note. Finally, if resettlement other than monetary compensation is the method of compensation applicable, as under Act 703 PIPs who prefer

resettlement after being displaced by a proposed mining operation are identified for resettlement. The Resettlement Packages are discussed by a Resettlement Negotiations Committee (RNC) which comprises elected community representatives, Company Representatives, Local and Regional government representatives, NGO representatives and an independent moderator. They review and recommend eligibility and entitlement with potential residents and resolve resettlement related issues or concerns.

A critical analysis of the compensation practices of the company revealed the following concerns. First, the main indicators for crop compensation are crop rate and crop population assessment method. Crop rates, according to the company were determined and reviewed annually to reflect current markets prices and other factors including maturity of the crop and life expectancy. The focus on current market prices in crop compensation assessment by NGGL implies the use of development value as the basis of compensation which measures worth once all the development has been completed. This raises the concern of the lack of appreciation of the farmer's crops or farms as investments requiring the valuation of crops on the basis of the investment approach. By this approach, estimates of crop yields and incomes are made and capitalized over the relevant periods at appropriate rates of capitalization and deferred to the present. There is therefore an important difference between development value and investment value. While the former is difficult to measure because development rights are related to freedom of choice, for example, the latter is difficult to measure because projections of future incomes are difficult to make. Secondly, respondents did not attract compensation for deprivation of use rights. This was because the compensation process was carried out under the repealed Minerals and Mining Law, 1986 (P.N.D.C.) Law 153 which did not provide for compensation for loss of use right to the land in mining. Thirdly, it was also revealed that from 2004 to 2010 actual negotiations were conducted without support of a land valuation expert for the communities affected. The processes were undertaken by only NGGL staff. Worse still, the analysis of data collected was done by NGGL staff only and values derived communicated to PIPs at the negotiations. This cannot be described as proper negotiations and NGGL contravened section 71(3) of PNDC Law 153 which required compensation values arrived at to be determined by agreement between the parties concerned. This provision is repeated in section 73(3) of Act 703. This approach resulted in a massive community resistance in 2011, which forced the company to hire professional valuers to support the communities in negotiations for compensation. Finally, it was also found that the mode of compensation payment by NGGL was deplored by some affected people on the grounds of delayed payments for about three (3) to over six (6) months. Yet, delayed compensation payments did not attract interest for the period of delay.

The above analysis reflects a situation in which communities that are not well resourced to effectively negotiate are pitched against a transnational corporation in negotiations for mining compensation. The outcome of this is an opportunity for exploitation and questions of trust in relations. As Kramer and Carnevale (2001)

pointed out, to trust an outgroup is to expect that one's vulnerability will not be exploited. Thus, communities' perceptions that the company is adhering to a set of principles i.e. *integrity-based* trust and that the company has the skills and knowledge required in managing the issues affecting all stakeholders, i.e. *competence-based* trust are vital to relations (Poppo and Schepker 2010).

The study revealed four major sources of conflict NGGL experiences in respect of land expropriation and company compensation practices. These were mainly perceived inadequate land compensation and delays in compensation payments; speculative or land development control issues; resettlement issues and infrastructure provision for the communities. A senior complaints and grievance officer in NGGL lamented:

The key sources of tension and disruptions in the mine land access endeavors are high community compensation expectation and sometimes delays in payment, the communities' difficult stance when the mine refuses to pay compensation for speculative development as well as resettlement issues. Land issues remain one of the mine's headaches (NGGL Senior Grievance Officer 2011)

Analysis of the minutes of meetings of NGGL stakeholders' committees responsible for negotiating crop compensation and that of resettlement entitlements revealed instances when the youth, concerned farmers and organizations stormed and disrupted sittings to reject rates or petition the committee or Regional Minister on grievances. For example, in 2010 youth groups from ten (10) NGGL affected communities stormed and disrupted the signing of negotiated crop rates by the Crop Rates Negotiations Committee on the grounds that the rates were low, communities were under-represented in the negotiations and that representatives were incompetent (Minutes of NGGL Crop Rate Negotiations Committee, March 5, 2010). Generally regarding resettlement, 66% of PIPs were not satisfied with NGGL resettlement packages, while 30% were satisfied with company resettlement practices. Of those who were not satisfied, 52.8% indicated concerns with the resettlement package given to the affected people. These included issues of room sizes, inadequate facilities like toilets that do not meet with planning standards and generally poor infrastructure such as the road network in resettlement communities.

4.3. Community satisfaction with NGGL compensation practices

When the respondents were asked of their satisfaction levels regarding perceptions on compensation, 54.5% of the 112 PIPs indicated they were satisfied with the determination and payment for compensation for deprivation of land use under Act 703. However, 86.6% of respondents indicated dissatisfaction on provisions for livelihood restoration and payment of compensation for caretakers or squatters in the mine area. They claimed that the mine adversely impacts caretakers more than any other group, making them deserving of compensation. A caretaker lamented as follows:

The mining company disturbs us so much and ruins our life and future because the farms that care for our livelihoods are taken or damaged, our farm houses are demolished. Yet monetary compensation or resettlements offered are given to our landowners/landlords only. The landlords do not also give us accommodation anymore because they do not have business with us and the company too does not care about us, leaving us frustrated (A Caretaker at Amoma Project 2011).

The above observation of a caretaker was typical of most non-indigenous people in the FGDs but contrasts with the views of indigenous people in FGDs. This result implies the need for targeted interventions at addressing the needs of marginalized land users in mining areas and draws support from Aha and Ayitey (2017) who found that tenure insecurity was disproportionately higher among non-indigenous people (96%) than indigenous people (43%) in the Ejura and Yeji communities respectively in the Brong Ahafo region of Ghana in large-scale land acquisitions for jatropha cultivation. These findings have potential for biases of views on compensation, especially involving non-indigenous people.

The results also showed that 72.3% of respondents viewed communities' non-involvement in granting mining leases or permits under Act 703 as inappropriate and in need of review. Again, 90.2% of the respondents were of the view that provisions on payment of compensation should be reviewed to give clear guidelines on what constitutes fair, adequate and prompt payment of compensation. Also 50.5% of the respondents indicated that portions of the provisions in the Minerals and Mining Act, 2006 (Act 703) that put development constraints on mining communities and give excessive power to the mineral right holder need to be reviewed. For instance Act 703 section 72(6) stipulates that "an owner or lawful occupier of a land shall not upgrade to higher value crops without written consent of the holder of mining lease, or if the consent is unreasonably withheld without the consent of the Minister". In this regard, a leader stated:

Even if the company does not enforce it, potentially the provision inhibits the development initiatives of many people, considering the large size of concessions given to the mining companies; apart from individual limitation, we have witnessed corporate bodies or institutions on one or two occasions, having stopped embarking on projects such as palm plantation etc in this area after conducting a search at the Land Commission to find out that an area has been leased out to a mining company (Interview with community leader 2011).

The above response highlights the difficulty in the use of development value for compensation given that development rights are related to freedom of choice and which has implications for value. When the respondents were asked of their expectations for total compensation sums from NGGL prior to payment, 92.8% said their expectations were so high that received compensation amounts were either very inadequate or inadequate. Only 7.2% of respondents indicated that

they had lower expectations than received amounts of compensation. Thus, fewer respondents had NGGL compensation to them beat their expectations. On the reason why the impacted people had higher expectations than realized, 71.4% of the respondents attributed it to the fact that the land constitutes their main source of livelihood. An expropriated landowner had this to say:

As you may have noticed our lands or farms are the only means of survival for us. Beside we have large families to take care of and this is the only asset we can give to our children as legacy, therefore losing the land forever makes us have high compensation expectation (Interview with an expropriated landowner 2011).

The above view of the expropriated land owner underscores the need for the use of investment value in compensation assessment because farms are seen as long-term investments by farmers. Only 19.6% of respondents attributed their expectations for higher compensation to the perceived view of the NGGL as a rich corporation, while 8.9% thought the compensation was an opportunity to alleviate their poverty. It is noteworthy however that land possesses not only an economic value, but also socio-political, cultural and religious significance to Ghanaians and therefore compensation perceptions are more likely to factor in these considerations.

However, in the specific case of crop compensation, 70% of the PIPs bemoaned its inadequacy, while 30% indicated they were content with the payment received. Two main reasons for differences in expectation in crop compensation were first, the basis upon which rates were determined. While PIPs were of the view that for cocoa which is their major tree crop its economic lifespan was 70 years, NGGL applies 30 years in its valuations. The second reason was on density of crops per acre. The PIPs were of the view that this is underestimated by the company because the communities' planting distances differed from the conventional distances being applied by the mine. These results are corroborated by findings of Ayitey et al. (2011). It was important to explore stakeholders' views on the payment of compensation for deprivation of land use newly introduced by Act 703. The respondents were asked of the extent to which their expectations had been met in terms of types of land resources considered for compensation for their deprivation of use. The results showed that 42% were satisfied while 58% were dissatisfied. The high proportion of PIPs who were dissatisfied regarding compensation for the deprivation of land use raises questions about the methods of assessing value for compensation. This result could be explained by the fact that where local practice differs from international standards such as cropping closer together than standard agricultural practices, this can lead to miscalculation of local costs.

The study revealed that various categories of compensation such as relocation, loss of shelter, loss of assets or access to assets and loss of income source or means of livelihood were paid as suffered by the individual. However, loss of

access or restriction to communal resources or service was generally not compensated. This concern was articulated by a resettled farmer as follows:

We have been moved far away from the Bosomkese forest which had been a source of herbs and game – the support from the forest was the bedrock of my family’s sustenance but all these were not considered in our compensation or resettlement (Interview with a resettled farmer at Ola 2011).

Another head of household recounted his disappointment for lack of compensation for access to community resources as:

We deserved to be compensated for the loss or deprivation of our mushroom, hunting, medicinal herbs and other resources we were freely accessing or depending on at our old place of residence; most of us could depend on those things without buying meat for about one or half a year. The cost of meat or fish affects us so much at our current resettlement site. We believe that if those items had been duly compensated for it would have made a difference in our livelihoods here “(Interview with head of a household at Ola Resettlement Site 2011).

The above results highlight the non-payment of compensation for common resource rights, the use of which community members are denied due to the activities of mining. This is supported by Kidido et al. (2015) in a study of NGGL Akyem. What appears to be the basis of this practice is the provision in section 74 of Act 703 prohibiting payment of compensation for “*loss or damage for which compensation cannot be assessed according to legal principles in monetary terms*”. In this context, however, the deprivation of communal use rights which are recognized by both the 1992 Constitution and national land policy of 1999 is clearly not in any legal doubt. Also, appropriate valuation methodologies exist for the monetary assessment of the value of common resources. Yet, communities were denied their rights to compensation for loss of use of communal resources. This contradicts the Constitution of the Republic of Ghana. It is however instructive to note that notwithstanding the above observations, 83.9% of the respondents indicated that the mine has in place Alternative Livelihood Support programmes for PIPs, but these, they argued, were very much restricted to only those who were impacted in terms of crops without considering those who had other means of livelihood such as hunting, palm wine tapping, etc. which derive largely from the use of communal resources.

5. Conclusions

This study has demonstrated that notwithstanding recent improvement in the regulatory regime for expropriation of land for mining in Ghana, enforcement is weak and a lot remains to be done to fulfill the constitutional requirement of fair, adequate and prompt payment of compensation to the expropriated. Communities impacted by mining were not well resourced to effectively negotiate for better

compensation for the loss of their land rights, and current legislation fails to recognize and compensate for common resources use of those without property rights on the basis of legal principles of ownership or difficulties in ascertainment of the values of these resources. This set of circumstances leaves potential for mining companies to offer compensation to the expropriated far below their expectations, leading to hardship among PIPs. There were differences in compensation practices between indigenous and non-indigenous people in communities, with the non-indigenous people feeling more marginalized in compensation practices. The divergence between communities' perceptions and mining company compensation practices can lead to conflicts and these can threaten the social license of mining companies to operate in communities. It is therefore important that both government and mining companies rigorously enforce the laws regulating mining and compensation, build the capacities of mining communities to negotiate for appropriate compensation and review current legislation to ensure that common resources in communities are valued and compensation paid. Furthermore, it should be legislated for commercial interest rates to be paid on delayed compensation payments and the valuation of crops based on the investment approach to ensure compensation values are adequate. Thus the difference between interest compensation for delayed payments, additional compensation for lost bequest value of investments and restrictions on development decisions under conditions of uncertainty should be clearly addressed through legislation for the benefit of indigenous and non-indigenous people as appropriate. Improvement in the corporate social responsibility packages of mines to communities could also ensure sustainable social licence of mine operations. These would go a long way in fulfilling the constitutional requirements on compensation for the expropriated in the mining industry in particular and the country as a whole.

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