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THE VALUATION OF MINING IMPACTED PROPERTY FOR COMPENSATION: INSIGHTS FROM A GHANAIAN CASE STUDY AND TRANSFORMATIVE SUGGESTIONS

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ABSTRACT

Issues relating to compensation for mining impacted property have dominated Ghana's policy discourses for years. Although the 1992 Constitution and other key legislation and policies call for fair, prompt and adequate compensation upon expropriation, compensation for mining-impacted property remains a source of conflict between mining companies and host communities. This notwithstanding, studies are yet to reveal the appropriateness of the compensation procedures and valuation methods applied in assessing compensation for impacted buildings and immovable properties. Using one of Ghana's largest mining companies as a case study, this article analysed data collected from in-depth interviews with 31 stakeholders and document analysis. The study found that the conflicts relating to compensation for expropriated properties are assignable to the defects in the approach to assessing compensation and the limitations of the current legislation. To address these issues, the research recommends changes to the current approach to compensation, the legal framework and rigorous regulatory oversight of compensation practices.

Keywords: Valuation, Compensation, Expropriation, mining impacted property, Ghana

1.0 INTRODUCTION

In the current era of sustainability in every aspect of human endeavour, it is accepted that states need to provide adequate infrastructure in terms of public utilities and other welfare goods (Olanrele et al. 2017). In attaining this goal, governments must compulsorily acquire land in situations where suitable land for such purposes is not available for purchase on the open market. Over the years, governments' exercise of the powers to compulsorily acquire land and attached property continues to be a source of debate and contestation. The discourses on expropriation and compensation centre predominantly on the acquisition procedures, the components of the compensation packages, valuation methods and compensation standards (Lamoreaux 2011). Albeit a necessary statutory intervention, whenever land and attached property are compulsorily acquired, the human costs of the disruption to social cohesion and the existing way of life may outweigh compensation awards, irrespective of how generous the compensation may be (Lindsay 2012). These adverse consequences of expropriation are further exacerbated when the procedures are poorly designed or implemented because this weakens land markets, undermines investment incentives, and deprives affected parties of their legitimate rights to land (Lindsay 2012); the outcome of which is the destruction of livelihoods and entire communities.

In Ghana, the 1992 Constitution, the National Land Policy, and key legislation such as the Land Act, 2020 (Act 1036) provide fair, prompt, and adequate compensation for compulsorily acquired property. This notwithstanding, some researchers contend that the lowering of standards by the government of Ghana under the mining sector reforms as part of the Economic Recovery Programme (ERP) without due regard to the socio-economic situation of mining host communities has resulted in economic rights violations (Hilson and Nyame 2006; Owusu-Koranteng 2010). Compounding this issue, determining what constitutes adequate compensation and the methods for assessing such compensation for parties affected by mining projects in Ghana remains an achilles heel of mining companies and property valuation practitioners for years. The ambiguity surrounding the amount of compensation deemed adequate remains a source of contestation and conflict in Ghana's mining communities (Daily Graphic 2018; Osei 2019).

In the past, some studies have highlighted the inadequacies in Ghana's compensation regime for mining-induced expropriations (Adonteng-Kissi et al. 2016; Adonteng-Kissi 2017; Bugri and Kumi 2018; Amponsah et al. 2022b). There are also studies that have examined the principles and methods for assessing compensation for deprivation of land use (Ayitey et al. 2011; Amponsah et al. 2022b) and the recipients rightfully entitled to receive such compensation upon expropriation (Kidido et al. 2015). Whereas some case studies have examined the compensation practices for communal and common resources (Bugri and Kumi 2018), others have pointed out the disparities in the compensation framework for mining and reiterated the need to standardise compensation practices in the mining sector (Ghana Chamber of Mines 2008; Amponsah et al. 2022a). In addition, Ablo and Asamoah (2018) have argued that since the compensation depends on the purpose for which land is acquired, what constitutes fair and adequate compensation remains subject to debate. Despite these

studies, research is yet to examine the procedures and the valuation methods for assessing compensation for immovable property[1]. Using a large-scale gold mining company as a case study, this paper examines the compensation practices and the valuation methods used for assessing compensation for mining impacted immovable property (these include commercial and unoccupied residential property). It is worth noting that under current legislation, the compensation for impacted property and the land on which the impacted property is situated must be assessed as two separate heads of claims. Therefore, compensation for the land on which the impacted property is situated is beyond the scope of this article. The rest of the paper is organised as follows. Section 2 reviews the relevant literature and situates the issues under study in context. In section 3, the research presents an overview of the study area and the methods. The empirical findings and discussions are presented in section 4. The study concludes with recommendations and policy implications for Ghana in the section 5.

2.0 LITERATURE REVIEW

2.1 Expropriation and compensation defined

According to the Food and Agriculture Organisation (2009), expropriation, also known as takings, compulsory acquisition or resumption, is the power of states to compulsorily acquire private rights in property without the willing consent of its owner or occupant for the benefit of the public. It serves as a means through which national, regional and local authorities secure land and property for uses considered in the broader community's interest (Viitanen and Kakulu 2008).

Though the state denies the affected parties their property rights for an overriding public interest or public benefit, the affected parties are entitled to just and adequate compensation (Kakulu et al. 2009). In most instances, the acquiring authority and the affected persons agree on the compensation payable in lieu of the expropriated property rights. The payment of compensation for compulsory acquisition is meant to reconcile the extinguishment of private property rights as compulsory acquisition and private rights in property are conversely opposed concepts (Otubu 2012). Wily (2018) argues that while property rights have remained the same for years, governments have increasingly widened the scope and justifications for compulsory acquisition.

2.2 Valuation for compensation

Determining the value of the expropriated land is the foremost task in assessing the quantum of compensation due to a dispossessed party in compulsory acquisition (Brown 2009). In this case, the value of the land refers to the land and all improvements attached to it. Globally, the legal framework

[1] Immovable property in the context of this study context refers to businesses (such as small retail shops, bars, local restaurants and chemical shops) and unoccupied buildings, wells, fishponds, cocoa dryer sheds, wooden barns and other ancillary structures. This excludes occupied residential properties that are eligible for compensation by way of resettlement.

for expropriation stipulates the basis for assessing compensation due dispossessed parties. In most instances, market value forms the basis for assessing compensation for land taken. The usual exceptions to the use of market value as the basis for compensation are where legislative provisions require compensation to be assessed based on equivalent reinstatement or where the expropriated land is used for purposes for which there is no market. For instance, in Australia, the legal principle underpinning property valuation based on market value was established in the case of *Spencer v Commonwealth (1907) 5 CLR 418* (Brown 2009). The rationale behind the Spencer principle is that the value of the land acquired is the price a hypothetical willing buyer will be prepared to pay and what a hypothetical willing seller will be ready to accept on the date of the sale. Similarly, in the UK, market value constitutes the basis for assessing compensation for land taken unless in situations where it will be inappropriate to determine the value of the land taken using market evidence (Mahalingam and Vyas 2011).

In determining the market value of the land taken, the main valuation methods used are the sales comparison method, the capitalisation of rentals approach, and the capitalisation of actual net returns approach (Rost and Collins 1993; Australian Property Institute 2007; International Valuation Standards Council 2016, 2017). Valuers may also adopt discounted cash flow techniques and the hypothetical development method to assess the market value of the land taken (Scarrett 2008; Blackledge 2009; International Valuation Standards Council 2016). On the other hand, where no market exists for the land taken or where the income derived from land cannot be used as the basis for assessing compensation for the land taken, it will be inappropriate to adopt market value as the basis for assessing the value of a claimant's land. This is usually the case where the expropriated land is put to uses that are generally not exchanged in the market, such as churches, schools, public halls, theatres, certain special-purpose businesses and industrial property (Scarrett 2008; Blackledge 2009; Wyatt 2013). Such situations may also arise in the valuation of rural land improvements where prevailing conditions do not allow the use of other valuation methods. The logical recourse in such instances is to assess compensation based on equivalent reinstatement (Brown 2009; International Valuation Standards Council 2016). The underlying rationale for assessing compensation based on equivalent reinstatement is that the affected party is entitled to claim the cost of purchasing, constructing or relocating and adapting an alternative land for his particular purpose under the enabling legislation (Denyer-Green 2013). Rost and Collins (1993) outline the three commonly used replacement cost approaches for assessing compensation based on equivalent reinstatement:

i. through a detailed estimate of the cost of labour and building materials at current cost;
ii. by estimating approximate quantities to derive unit costs such as the cost per brickwork or cost per square metre of land and
iii. by ascertaining and applying the current cost per unit of the constituent parts of the property, such as the cost per metre for each type of building, the cost per cubic metre of earthworks or the cost per metre of fencing.

The approach adopted for the valuation depends on the nature of the property under valuation and data available.

2.3 Legal framework for expropriation and compensation for mining in Ghana

Article 257 subsection 6 of the 1992 Constitution vests all minerals in Ghana in the President on behalf of and in trust for the people of Ghana (Republic of Ghana 1992). Articles 20 subsections 1 and 2 of the Constitution further provide that the state or an entity vested with its powers can expropriate private rights in property for public purposes or public benefit subject to fair and adequate compensation (Republic of Ghana 1992). Section 4.2 (e) of the National Land Policy and Section 74(2) of the Minerals and Mining Act, 2006 (Act 703) affirm the constitutional right to fair and adequate compensation upon expropriation (Ministry of Land and Forestry 1999).

Regarding expropriations for mining, the Minerals and Mining Act, 2006 (Act 703) and its subordinate legislative instrument, the Minerals and Mining (Compensation and Resettlement) Regulations 2012 (LI 2175 hereafter), enables the state to cede its powers of eminent domain to mining companies upon issuing mineral concessions and permits. Under section 74(1) of the Minerals and Mining Act, 2006 (Act 703), an expropriated party may be entitled to claim 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 or damage to immovable properties,
(c) in the case of land under cultivation, loss of earnings or sustenance suffered by the owner or lawful occupier, having due regard to the nature of their interest in the land,
(d) loss of expected income, depending on the nature of crops on the land and their life expectancy,

As noted under section 1.0 of this article, it is evident from the preceding that the law provides that the acquiring entity must assess the compensation for the impacted land and any property on the land as two separate heads of claims. Cognisant of transparency and community participation concerns in compensation processes, section 73(3) of Act 703 provides that the determination of the amount of compensation shall be by agreement between the acquiring mining entity and the dispossessed parties. The law thus requires the acquiring mining company and claimants to negotiate the compensation for expropriated property. This notwithstanding, section 75 (2) of Act 703 provides that an aggrieved party may apply to the High Court for a review when dissatisfied with the compensation offered by a mining company. Under Regulation 3 (1C) and (1D) of the LI 2175, valuers must consider the following principles in assessing compensation for impacted property:

(c) in respect of commercial structures which affect a business,
(i) the cost of re-establishing commercial activities elsewhere in a similar locality;
(ii) loss of net income during the period of transition;
(iii) the costs of the transfer and reinstallation of plant, machinery or equipment; and

(d) in respect of immovable property, where there is a loss or damage, the payment of compensation based on full replacement cost.

By inference, in line with the literature (under section 2.2), the L.I 2175 requires acquiring entities to assess compensation for immovable property based on the equivalent reinstatement. However, it is also evident that the law fails to provide direction on the basis and the methods for estimating the compensation for impacted commercial structures which affect a business.

3.0 METHODOLOGY

This study adopted a qualitative case study approach. Data was collected in Ghana from January 2021 to April 2021. Yin (2009) supports the appropriateness of qualitative case study research because it enables researchers to explore a phenomenon within its context using data collected from multiple sources.

To examine the procedures and valuation methods used to assess compensation for mining impacted commercial structures that affect a business and other unoccupied immovable property, it was essential to select a case study that enables the research to gain insights into the mining industry's current valuation and compensation practices. Therefore, Company X was selected because it was acquiring lands to expand its mining areas at the time of data collection. This presented an ideal situation to sample the views of all interest groups and the key stakeholders in the valuation and compensation processes directly on the field. It is known that mining companies in Ghana build upon existing industry practices. Hence, because Company X was acquiring lands to expand its operations, this presented a suitable setting to obtain insights on the current valuation and compensation practices. For confidentiality purposes, the actual name of the mining company is not provided in the paper. However, we obtained RMIT University's ethics approval, and the research was conducted in conformity with RMIT's research ethics specifications. Consent was also obtained from the studied mining company and all study participants.

Data was collected from primary and secondary sources. For primary data, the research adopted purposive and snowball sampling techniques to select participants for the study. Purposive sampling was employed to select professionals comprising four officials of Company X, five private valuers and researchers, and three officials of the government valuation agency, the Land Valuation Division of the Lands Commission (LVD). These participants were selected due to their in-depth knowledge, experience and understanding of the expropriation and compensation practices of the studied mining company. The snowball sampling technique was used to select nineteen persons whose properties have been compulsorily acquired. Given that the studied company's mining operations cover several communities, snowball sampling was an effective technique to recruit expropriated property owners from the mining host communities.

Interviews with the professionals were designed to obtain data relating to the property valuation methods and compensation practices based on the prevailing legal framework. In the case of the expropriated property owners, the research examined their experiences and perceptions of the valuation and compensation process. Interviews were conducted until data saturation was achieved.

Saunders et al. (2018) state that data saturation constitutes a key criterion for determining when to conclude data collection in qualitative research. Secondary data was collected from archival materials, newspaper articles, project leaflets and compensation reports.

Interviews were audiotaped and subsequently transcribed by the researchers. Data sourced from the interviews were categorised according to themes and analysed thematically. This enabled a comparison of opinions and the perceptions of different study participants on the issues examined. Interview transcripts were coded based on themes using the qualitative data analysis software NVivo version 12 to facilitate the data analysis. Data analysed were presented using descriptive narratives. Using descriptive narratives enabled the researchers to incorporate diverse participants' opinions to support the findings (Hancock and Algozzine 2011). To ensure data source triangulation, consistency and trustworthiness of the research findings, data collected from interviews and other data sources were compared to establish the convergence of facts.

4.0 FINDINGS AND DISCUSSIONS

4.1 Compensation assessment processes for impacted property and their implications

From the interviews with valuers and Company X's representatives, as a precursor to the valuation of impacted property, Company X's land survey team conducts a Rapid Assets Survey to identify and assign unique codes to all properties within the earmarked mining project area.

Using data collected during the Rapid Assets Survey, a valuation team inspects each property and records key property data such as the room dimensions and other constructional details. The team also photographs the affected property. Based on the construction materials, the valuers apply a predetermined cost per square metre to arrive at the full replacement cost of the affected property. A valuer explained the valuation process as follows:

"Based on the construction materials (for walls and roofing) and the intended or actual use, an estimated range of up to two hundred and fifty types of properties are eligible for compensation. The compensation is determined by multiplying the assigned rate per square meter, which is based on the walls and roofing materials and the use of the property by the total area of the property" – Valuer 2

Their use of predetermined cost per square metre in valuing buildings and other structures aligns with Rost and Collins' (1993) assertion that applying the cost per unit area of the constituent parts of property is one of the three commonly used approaches for assessing compensation based on equivalent reinstatement. Regarding the compensation for the land on which the expropriated property is situated, valuers revealed that the land value is assessed and paid to claimants separately under a different head of claim: the compensation for the deprivation of land use. However, as revealed under section 2.3 of this paper, section 73(3) of the Minerals and Mining Act, 2006 (Act 703) requires the acquiring mining company and the claimant to negotiate the compensation amount. Nevertheless, per the current approach to compensation, Company X's valuers solely determine the

compensation due expropriated property owners without negotiations. Reacting to this, an expropriated property owner intimated that:

"Unlike the compensation for crops, the company assesses the compensation for impacted properties without community participation. After assessing the value of the impacted property, the owner is invited for validation and payment" – Expropriated property owner 7

Confirming this claim, a representative of Company X indicated that:

"The compensation negotiations committee only negotiates the compensation for affected farms. Compensation for buildings and other improvements is not negotiated. Our valuers assess the compensation of such properties" – Official 1

The above responses highlight the variations in the legal provisions and the actual compensation practices. Whereas this raises fairness and transparency concerns, the mining sector regulatory agencies have not moved to enforce the legal provisions. This finding supports the assertion that the challenges in Ghana's mining sector are attributable to the weak regulatory regime (Agyei 2016; Bugri and Kumi 2018). Aside from this, expropriated property owners expressed dissatisfaction with the current compensation values. In the words of an expropriated property owner:

"We know the values this company pays for our buildings and structures are unfair. However, because we do not have sufficient knowledge of property valuation, it becomes difficult to challenge them. Our leaders have disappointed us because the company pays us what it pleases without anyone challenging them. Appealing to the courts for a review is also an expensive and lengthy process which is beyond our means" – Expropriated property owner 5

It can be deduced from this statement that although the law allows parties dissatisfied with the compensation offered to appeal to the courts, the cost and duration of the court processes remain a significant disincentive. Hence, they cannot challenge Company X's compensation values due to their lack of knowledge of valuation and the costs of appealing to the courts for redress.

To support their fairness and adequacy claims, Company X's officials argued that their valuers consider changes in the prices of goods and services in assessing the values of impacted properties. Hence, the research calculated the inflation adjusted compensation values for impacted buildings and structures to ascertain whether the annual compensation values were adjusted for variations in the real value of the local currency. Since up to two hundred and fifty types of properties (based on material combinations and use) are eligible for compensation, the research analysed the values per metre values for six predominant types of properties. As shown in Table 1, statistics from the World Bank (2022) and the Ghana Statistical Service (2022) using 2010 as the base year show the consumer price index (CPI) for 2018, 2019 and 2020 as follows:

Table 1 Consumer price index for 2018, 2019 and 2020 using 2010 as the base year

YEAR	CONSUMER PRICE INDEX
2018	259.8864
2019	278.4517
2020	305.9831

Source: Ghana Statistical Service (2022) and the World Bank (2022)

Since the compensation values for years 2018, 2019 and 2020 were available for analysis, the research adopted 2018 as the base year in calculating the inflation adjusted real value per square meter over the three-year period. The CPI for 2018, 2019 and 2020 were 100, 107.1436 and 129.4769, respectively (see Table 2).

Table 2 Consumer price index for 2018, 2019 and 2020 using 2018 as the base year

YEAR	CONSUMER PRICE INDEX
2018	100
2019	107.1436
2020	117.7372

Based on this, the research derived the inflation adjusted compensation values for the six selected types of properties as shown in Table 3 below.

Table 3 Inflation adjusted real compensation values for the AGGL case study from 2018 to 2020

Type of property	Wall description	Roof description	2018 value per square metre (GH¢)	2019 inflation adjusted value per square metre (GH¢)	2020 inflation adjusted real value per square metre (GH¢)
Residential	Sandcrete blocks	Corrugated iron sheets	1,100	1026.66	934.28
Residential	Swish or mud bricks	Raffia	76.05	70.9795	64.59
Residential	Wattle and daub	Thatch	55.12	51.45	46.82
Fishpond	Earth (surface area)	None	15.97	14.91	13.56
Sheep/ goat pen	Wooden board	Corrugated Iron sheets	37.60	35.09	31.94

Cocoa dryer stakes	Sticks	Bamboo	24	22.40	20.34

Table 3 shows that when adjusted for inflation, the real values per square metre in the local currency for the six selected property categories declined year-on-year. This implies that expropriated parties who received compensation for impacted buildings and structures in 2018 were financially better off than those who received compensation for similar properties in 2019 and 2020. This highlights the need to reconsider the approach to annual compensation reviews.

4.2 Controversies over the appropriateness of the cost method for commercial property valuations

As stated under section 2.3, in assessing compensation for commercial structures that affect a business, regulation 3 (1C) of the L.I 2175 requires the acquiring entity to consider three fundamental principles:

i. the cost of re-establishing commercial activities elsewhere in a similar locality;
ii. the loss of net income during the period of transition, and
iii. the costs of the transfer and reinstallation of plant, machinery or equipment.

In the light of these compensation principles, the research inquired from an official of the studied company whether these principles are included in assessing compensation for commercial properties. By commercial properties, this research refers to the retail outlets, chemical shops (locally known as *drug stores*), corn mills, drinking bars and local dishes restaurants (known in local parlance as *chop bars*) in the mining host communities. An official confirmed that a cost premium is added to the assessed replacement cost for impacted commercial buildings or structures in lieu of these principles as in the following comment:

"For business entities, we add a percentage of the assessed replacement cost of the affected property to account for disturbance and relocation costs" – Official 3 (Company X)

This goes to show that in compensating for impacted commercial properties, Company X pays a cost premium for the three compensation principles under regulation 3 (1C) of the L.I 2175, in addition to the replacement cost of any impacted buildings and structures. By deduction, compensation for impacted businesses is by way of reinstatement since the law accounts for the replacement cost of any impacted buildings or structures under regulation 3 (1D) of the L.I 2175 and the costs for reestablishment, transfer and reinstallation of equipment and transitional losses under 3 (1C) of the L.I 2175. Therefore, the rationale underlying the current legal framework is that the impacted business owner should be able to re-establish the impacted business in a comparable location. The law thus fails to provide compensation where the expropriation of commercial properties leads to the extinguishment of business. The implication is that where expropriation leads to the extinguishment of the operation of a business, the affected party risks receiving compensation below the market

values of their lost business. Such compensation may thus be inadequate to replace their expropriated property, thereby defeating the primary goal of compensation. This has critical social and economic implications for such persons.

5.0 RECOMMENDATIONS AND CONCLUSION

This paper has examined the compensation practices and the valuation methods used for assessing compensation for mining impacted commercial structures that affect a business and unoccupied immovable property using a large-scale gold mining company as a case study. This study has demonstrated that the lax regulatory oversight of valuation and compensation practices enables mining companies to exercise broad discretion in determining compensation for impacted properties. This can lead to situations where affected parties may be paid compensation below the actual value of their expropriated property. This finding underscores the need for strict adherence to the legal provisions and enhanced regulatory oversight over expropriation and compensation practices in Ghana.

The underlying rationale for compensation upon expropriation is to restore affected parties to their pre-acquisition status. Hence, to meet the constitutional requirement for fair and adequate compensation, there is a need to consider the impacts of inflation on annual compensation values. For instance, some federal and state compensation statutes in Australia provide that compensation based on fixed sums must be indexed to the All Groups Consumer Price Index (Todd and McDonagh 2011). This reinforces the need to align the current compensation practices with practices elsewhere.

According to Brown (2009), in Australia, whereas the expropriation statutes do not explicitly provide for compensation where the impacted business is extinguished, affected parties can claim such compensation under the provisions for disturbance (Brown 2009). Since Ghana's legal framework for mining provides compensation for any other disturbance suffered due to the grant of the mineral right, this provides the legal grounds for claimants to submit claims where expropriation leads to the closure of their businesses. Towards ensuring clarity and certainty in the valuation of mining impacted property for compensation, the Ghana Chamber of Mines and Valuation and Estate Surveying Division of the Ghana Institution of Surveyors must work hand in hand to develop standardised guidance for valuers and mining companies.

This research contends that the issues relating to the compensation for mining impacted immovable property may not be limited to the studied mining company but may occur in other mining companies in Ghana. Therefore, an in-depth multiple case study of the valuation methods and compensation practices of mining companies in Ghana is required.

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